Barriers and Enablers to Returning to Work from Long Term Sickness Absence

Belinda Jane Board

Thesis submitted for the degree of Doctor of Philosophy

Department of Psychology
Faculty of Arts and Human Sciences
University of Surrey

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ABSTRACT

Long term sickness absence in the United Kingdom labour market has become a major health issue in recent years. In contrast to short term sickness absence, where rates have been falling in recent years, rates for long term sickness absence (LTSA) have been on the increase. This thesis is concerned with identifying barriers and enablers to returning to work (RTW) from LTSA from the perspective of the long term sick and the processes involved in work disability and RTW, in a policing population. The epistemological position of this thesis is one of methodological eclecticism: both quantitative and qualitative methods have been utilised to elicit distinct kinds of data. This thesis proposes that through the lens of the long term sick the work disability experience can be conceptualised systemically, as three identifiable co existing domains; individual, organisational and societal, each populated with factors perceived by the long term sick to be associated with work disability and their effects, manifested in absence duration and RTW outcome; thereby supporting the need for a wholistic and integrated approach to RTW interventions.

This thesis aimed to establish regularities and patterns in LTSA among the occupationally diverse Anon Force using a large administrative database. In doing so, it substantiated the presence of objectively determined individual domain barriers to RTW and predictors of RTW outcome and established the absence phase specificity of a number of risk factors of prolonged work disability. These comparative quantifications were detailed by the stories from the qualitative subset of interviews which elaborated and identified additional barriers and enablers from the perspective of the long term sick. The results of this thesis confirmed that from this perspective the experience of LTSA can be conceptualised systemically, as three identifiable, co existing domains; societal, organisational and individual. They also provide insight into the factors that populate each of the three identified domains, the interplay between domain factors and the emergence of secondary barriers. The results also provide knowledge about key RTW processes, explaining how respondents perceived and responded to events as they progressed along the disability timeline, finding or not finding a way back to work. In particular, communicating relationships, occupational bonding, motivation to RTW and cognitive appraisal were all identified as processes that are significantly involved in work disability and RTW. The evidence from this thesis suggests there is a limited window of opportunity in which to target remedial resources if they are to deliver maximum benefits and minimise the likelihood of the onset of chronic disability symptoms. This thesis offers new insights into the variations in RTW behaviours through the detailed examination of the LTSA experiences of the work disabled and allows for better targeting of RTW interventions.
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1.0 CHAPTER 1 INTRODUCTION

This chapter sets the scene for the research into the barriers and enablers to returning to work from long term sickness absence from the perspective of the long term sick and what can be done to effect successful return to work outcomes. It provides the rationale for undertaking the research, in particular, justification for focusing research efforts on the Police Service as the working population. It outlines the research proposition including the objectives of the research. In addition, the chapter sets out the structure and a brief resume of the unfolding argument and evidence presented in this thesis.

1.1 OVERVIEW

Long term sickness absence (LTSA) in the United Kingdom (UK) labour market has become a major health issue in recent years. In contrast to short term sickness absence\(^1\) (STSA), where rates have been falling gradually in the UK since 1997 (Confederation for British Industry [CBI], 2001; HM Treasury, 2000), rates for LTSA have been on the increase. In 1978/79 approximately 21.5 per cent of all certified sickness absence across the British economy was attributable to long term sickness absence, i.e. lasting 20 or more consecutive working days\(^2\). By 2003 this figure had increased to 33.1 per cent according to the Confederation of British Industry figures (CBI, 2004). Moreover, this figure was contributed to by only 5 per cent of episodes (CBI, 2004). Analogous figures for the UK public service for the same period revealed a similar sickness absence pattern (Cabinet Office, 1999, 2004). Ten per cent of absence episodes lasted 20 or more consecutive working days and accounted for 68.3 per cent of the total sickness absence days lost and 75 per cent of absence costs. (Cabinet Office, 1999, 2004; Henderson, Glozier and Elliot, 2005). So while most people return to work from sickness absence episodes within a short period, a small but growing proportion of people do not conform to this behaviour pattern and they contribute disproportionately to the sickness absence profile of the UK workforce.

These changes to the sickness absence profile of the UK workforce have brought with them heavy financial costs. LTSA is estimated to cost British industry in excess of £11.6 billion annually, and the Government spends an estimated £13 billion a year in

\footnote{1}{The proportion of sickness absence episodes of 1 or 2 days in length in the UK workforce is approximately 62 per cent, and five days or less is approximately 85 per cent (Cabinet Office, 2004; CBI, 2001).}

\footnote{2}{Defined in the present research as long term sickness absence.}
benefits such as incapacity benefits alone (CBI, 2004; DWP, 2004). Human capital costs are equally substantial: with many employers reporting increased difficulties in managing LTSA, especially where some form of mental ill-health is involved, and the skill loss that comes with LTSA; and for individuals, the financial hardship that is associated with the curtailment of lifetime earnings and the limitations of benefits is considerable (HM Treasury, 2000). In 2002, the Department of Work and Pension's national statistics showed that the major factor behind expenditure trends for working age people was the cost of income replacement for people who were not working.

As a consequence of the vast social and economic costs to employees, employers and society, the UK government in conjunction with the Health and Safety Commission recently launched a plan for reducing LTSA and facilitating return to work (RTW) (DETR, 2000). All Departments have been directed to develop clear strategies for how LTSA can be significantly reduced and personnel rehabilitated back to workplace.

Unfortunately, there are still relatively few studies addressing LTSA and RTW in the UK labour market and relatively little is understood about people's individual experiences of LTSA and the perceived barriers and enablers to returning to work (Stafford, 2000). Scant attention has been given to researching factors that influence returning to work from LTSA. Knowledge of what factors help and hinder RTW from LTSA is needed in order to plan programmes in a specific labour market context (Loisel, Cote, Durand, Franche, Sullivan, and Baril, 2005). Thus the present research aims to address this. The key research question this thesis addresses is to identify the barriers and enablers to RTW from LTSA from the perspective of the long term sick and the processes involved in work disability and RTW. The thesis is thus directed at the perceptions and experiences of the long term sick and it is through this lens that it is proposed to explain the processes critical to successful RTW. This will provide guiding insights into how employees, employers and society can better manage LTSA and achieve successful RTW outcomes. The knowledge derived from this research will be used to develop a set of innovative recommendations for improving RTW policies and practice for the management of long term work disability. The working population chosen to explore this issue is the police service.
1.2 THE POLICE SERVICE AS THE RESEARCH POPULATION

There is strong empirical and practical justification for focusing the present research efforts on the Police Service as the working population. Within the sickness absence research literature, which focuses on short term sickness absence, there has been substantial consideration of the effects of different job roles and different aspects of work on well being (Worrall and Cooper, 1995; Lim, Chongsuvivatwong, Geater, Chayapham, and Thammasuwan, 2002; North, Syme, Feeney, Head, Shipley, and Marmot, 1993). Findings from this literature inform that people engaged in physical, hazardous job roles, such as law enforcement are more likely than others to be vulnerable to a variety of stress related conditions (Lobel and Dunkel-Schetter, 1990; Alkus and Padesky, 1983), and that the high incidence of sickness absence and medical retirements observed in this profession is the result of severe, chronic stress (Brown and Campbell, 1990; Alkus and Padesky, 1983). As such it is probable that the levels of LTSA may be more easily found and sufficient numbers of cases available in order to carry out a viable empirical investigation. Thus choice of police as the research population is in part made on pragmatic grounds.

The police research literature suggests two distinct sets of job factors on police staff's well being: organisational, which refers to the context in which people work; and operational, which refers to the specific job tasks related to the core job role (Hart, Wearing and Headey, 1995; Sigler and Wilson, 1988). Strong evidence has been reported that suggests it is organisational rather than operational activities which are more important to police staff's well being (Hodgins, Creamer, and Bell, 2001; Hart et al, 1995). Indeed, the front line aspects of police work, be it dealing with violent offenders, road trauma or distraught victims, do not appear to be especially distressing for the majority of police officers (Hart et al, 1995). Analogous findings are apparent in similar research using teacher and nurse populations where organisational rather than operational factors have been implicated more often as having an effect on well being (Borg, 1990; Hart, 1994; Hackett and Bycio, 1996).

These findings reflect the developing support in the sickness absence literature for the variable effects of different job roles and the primacy of organisational rather than operational aspects of work with respect to a person's well being (Hart et al, 1995; Brown and Campbell, 1990; Band and Manualle, 1987). What is not known is any effect these factors may have on LTSA. To date the literature has focused on short
term sickness absence, and only a handful of equivalent studies have been undertaken in the RTW research literature, which focuses on long term sickness absence. So it remains largely unknown what the relative influences of job role and organisational and operational elements may be on long term sickness absence and RTW outcomes. Determining which job roles and job factors may act as significant barriers to RTW from LTSA is a vital part of understanding how successful RTW outcomes can be achieved.

Such a line of inquiry is suited to being answered within a large Police Service population as it affords the opportunity to draw on its varied and distinct occupational groups, police officers and police staff (civilians). Each of these groups has unique job functions with diverse job requirements. Police officers are primarily engaged in the demanding and hazardous job of delivering front line policing, which covers a broad range of law enforcing activities; while police staff are primarily engaged in sedentary office and industrial roles that provide support to the policing function. These contrasting job functions within one employer allow for a more comprehensive study than would otherwise be possible if researching within a typical business organisation. It means that barriers and enablers to RTW from LTSA can be investigated across these diverse job functions, providing the opportunity to compare the distinct occupational groups.

In addition to the empirical and practical reasons for choosing the Police Service, there is also strong moral justification for choosing it. The police provide an important public service, one that frequently places officers in the line of personal danger, and in return they should expect to operate within an organisational system that fully supports those efforts. This includes the way in which the Police Service determines and administers its Health and Safety policies particularly those germane to the management of injury and illness.

There is also compelling financial justification. Over the past few years there has been substantial investment by the government in policing. During the next few years the Police Service will need to evidence that this commitment has resulted in demonstrable and sustainable improvements in performance. This performance extends to the dimension of sickness absence. The management of LTSA within the Police Service has been the source of a number of reports in recent years and all have concluded that it has become unacceptably high (Home Office, 2001; HMIC,
2002/03). Moreover, during this period the subject of ill health among police officers has attracted adverse media and other public comment. Operating the Police Service - a service very much in the public eye - comes at a huge cost to the taxpayer, and the community at large should expect that it optimise its performance despite the complexity of the challenges faced. Police staff and the public generally should expect that every support is given to those working within the police service to ensure that in the event of illness or injury its personnel are able to return to work in as timely a manner as possible.

The lack of UK based research into LTSA provides further empirical justification for undertaking this thesis. Relative to other countries such as Australia, United States, Canada, Sweden and the Netherlands where considerable effort has been invested in researching LTSA, there has been little research into LTSA in the UK labour market and more particularly into identifying and overcoming the barriers to RTW from LTSA (DWP, 2004).

Determining how to get people back to work from LTSA potentially has huge social, community, financial and moral benefits. Understanding this subject in greater depth can only advance this goal. Researching LTSA within the Police Service should accelerate this process. A diverse workforce with distinctive job functions, the Police Service affords greater opportunities for the research findings to be generalised from these organisational groups to a wider organisational community that includes not only other emergency services but also business organisations in general.

Currently in the UK, as part of more far reaching public service reforms, the government is expending considerable human and financial resources on developing a programme of radical change in the police service which ultimately aims to deliver better security and protection for all. A key part of this initiative aims to deliver a modern police service in which managers can make optimal use of their staff, with a reward system that meets the diverse needs of the workforce. One area that has been singled out as being in need of substantial change if the police service is to meet these aims is the management of LTSA. But despite the volumes that now document the scale of the problem (for example, PAC Report, 1998; ‘Lost Time’ HMIC, 1997; ‘Policing a New Century: A Blueprint For Reform’, Home Office, 2001) efforts to develop policies and practices to better manage long term sickness absence are being done against a background of substantial gaps in the research literature
regarding these issues. As a result, neither the relevance nor the significance of these knowledge gaps is understood.

1.3 THE RESEARCH PROPOSITION

RTW from LTSA is a complex problem that needs a complex solution. The RTW literature identifies over 100 factors associated with LTSA and RTW covering a multiple of domains from social to economic to medical to individual (Krause, Frank, Dasinger, Sullivan, and Sinclair, 2001a). Most studies have considered single domains or particular aspects of the problem such as work place factors or health care factors and have often been inconclusive (Baril, Clarke, Friesen, Stock, Cole, the Work – Ready Group, 2003). Moreover, the majority of RTW research effort has focused on objective determinants of the person, the work tasks or societal issues such as disability policies. The perspective of the work disabled has been largely overlooked and little is known about their viewpoint of what constitutes the barriers and enablers to RTW from LTSA and how their perceptions of their LTSA experience might impact RTW outcome (Shaw, Segal, Polatajko and Harburn, 2002). Within the RTW literature there is an emerging critique that suggests there is a need for an integrated approach to understanding the multiple risk factors associated with RTW from LTSA and that the perceptions of the long term sick of their work disability experience is essential for improving understanding of the variations in RTW behaviour and in order to better target interventions aimed at achieving successful RTW outcomes (Turner, Franklin and Turk, 2000; Franche and Krause, 2002; Shaw et al, 2002).

It is the proposition of this thesis that through the lens of the work disabled, the experience of LTSA is a developmental phenomenon that can be conceptualised systemically, as three identifiable, co existing domains; societal, organisational and individual, each populated with factors perceived by the long term sick to be associated with work disability and their effects, manifested in sickness absence duration and RTW outcome (Loisel, Durand, Berthelette, Vézina, Baril, Gagnon, Lanviere, and Tremblay, 2001a; Franche and Krause, 2002). It is suggested that there is a need to understand and integrate these factors and identify key RTW processes in order to guide the design of a wholistic and integrated approach to RTW interventions that increase the likelihood of the long term sick RTW (Shaw et al, 2002). This proposition accepts that that there will be exceptions to it, for example the
person with a terminal illness who will never RTW. For the most part however most people if provided with adequate interventions from the identified domains will RTW. With current levels of LTSA increasing within the UK labour market it is timely to undertake this research.

As previously stated the principle research question is the identification of the barriers and enablers to returning to work from long term sickness absence from the perspective of the long term sick and the processes involved in work disability and RTW. The objectives of the research are:

1. to clarify terminology, design and analysis with respect to long term sickness absence and return to work research,
2. to develop a theoretical work disability and RTW model integrating societal, organisational and individual domain characteristics, from the perspective of the long term sick
3. to establish the rates of long term sickness absence within a police workforce (for police officers and police staff - civilians)
4. to discover demographic and occupational characteristics associated with LTSA
5. to discern patterns of LTSA in the workforce as a whole (quantitative analysis)
6. to substantiate these patterns in a detailed analysis of a smaller sub group of LTSA respondents
7. to utilise the smaller group to conduct a detailed analysis of LTSA from the respondents' perspective on what helped and hindered their return to work (qualitative analysis)
8. to provide recommendations for improving RTW policies and practice deriving from the findings and theoretical development.

This thesis is positioned within the domain of psychology. While contributions on LTSA and RTW have come from many diverse disciplines including epidemiology, medicine, psychology, sociology, economics and public policy, the weight of evidence across studies suggests that psychosocial factors appear to have the strongest influence on RTW rates (Vowles, Gross and Sorrell, 2004). Moreover, to date the majority of research effort into the study of LTSA and RTW outcomes has focused on objective determinants of the person, the work place, or societal issues (Shaw et al, 2002). Little is known about the factors associated with RTW from LTSA from the perspective of the individual (Allebeck and Mastekaasa 2004). It is argued in this
thesis that it is the perceptions and behaviour of the long term sick that is key to successful return to work; these constructs place the inquiry firmly within a psychological perspective. It is further argued that overall population patterns within a workforce provide useful but insufficient insights into this problem. It is critical to further understanding that insights are gained from the viewpoint of the long term sick. Thus this thesis uses a mixed methods approach, collecting both qualitative and quantitative data.

1.4 CHAPTER RESUME

Chapter 2 defines and delineates LTSA and RTW and summarises the scale of the growing problem of LTSA in the UK labour market. Section 1 introduces the brief rationale for the delineation between short and long term sickness absence. Section 2 defines the terms LTSA, RTW and absence phase specificity for this thesis. Section 3 provides an overview of LTSA in the UK labour market, focusing on the number of episodes and the number of working days lost. Section 4 examines the trends in LTSA in the UK labour market. Section 5 is the conclusion. A more comprehensive set of statistics on LTSA may be found in Appendix 1.

Chapter 3 is the literature review and is divided into 4 main sections. Section 1 provides a brief introduction to the challenge of reviewing the RTW research literature. Section 2 introduces the conceptual framework of this thesis and is used to guide the literature review. Section 3 describes the existing findings from the occupational/workers compensation rehabilitation and RTW research literatures on the variables that influence the duration of LTSA and RTW outcomes. A summary of these findings is then given, which is followed by an analysis of the limitations of the reviewed literature.

Chapter 4 describes theoretical models and concepts that have been proposed in the literature to account for LTSA and RTW outcomes. In addition, various psychological processes that may play a role in LTSA and RTW outcomes such as cognitive appraisal are discussed. Following on, the psychological processes that this thesis considers to be particularly relevant to the experience of LTSA from the perspective of the work disabled are presented. The chapter concludes by developing the aims of the present research.
Chapter 5 clarifies the epistemological position of this thesis. It elaborates the rationale for adopting a mixed methods research design incorporating both qualitative and quantitative research methods to conduct this investigation into barriers and enablers to returning to work from long term sickness absence. This chapter also discusses the ethical considerations in conducting research with a sample of people on long term sickness absence.

Chapter 6 outlines the organisational context for investigating barriers and enablers to RTW from LTSA within the Anon Force. It outlines the typical police organisation, describing aspects of the culture, structure, and staffing. It goes on to discuss the specific organisational policy relevant to attendance management in the Anon Force.

Chapter 7 presents Study One, the quantitative study which aims to establish regularities and patterns in LTSA among the occupationally diverse Anon Force. In doing so, this study will substantiate the presence of any objectively determined individual domain barriers to RTW and predictors of RTW outcome and establish the phase specificity of any risk factors of long term sickness absence. The dataset of 6246 injured/ill respondents was derived from the personnel and absenteeism records of the Anon Force for the two-year period from 1 November, 2000 to 31 October, 2002. The group represents all personnel who had at least one episode of LTSA during the study period and was employed by the Anon Force for the whole of the study period. The dataset was subjected to a series of univariate, bivariate, multivariate analyses including logistic regression to determine the relative impacts of type of illness/injury, individual and job role factors on RTW outcomes and time lost.

Chapters 8 and 9 present Study Two, which utilises a qualitative methodology of in depth semi structured interviews with a sub sample of police officers and police staff from Study One. Drawing on the perceptions of the long term sick, this study seeks to: identify and explore the barriers and enablers to RTW from LTSA and the processes involved in work disability and RTW; reveal any insights that confirm findings from the quantitative study; and locate the factors within the different domains (individual, organisational and societal). Chapter 8 reports the study details and provides a brief analysis of the structural features of the data. Chapter 9 provides the detailed thematic analyses that emerged from the qualitative data.
Chapter 10 is the Discussion. This chapter discusses the collective findings of this thesis. Each of the identified domains and their associated factors are discussed for their significance to LTSA and RTW outcome in the context of the literature review and the emergent theory.

Chapter 11 is the Conclusions and Recommendations. It provides an overview of the principle proposition of this thesis, the resultant populated conceptual framework and some conclusions pertaining to the findings. Based on these, Section 3 outlines a set of innovative recommendations for RTW policies and practice for the management of long term work disability with the aims of ensuring the most expeditious recovery and RTW and the prevention of the development of chronic psychological disability symptoms. Section 4 discusses the strengths and limitations of the research. Section 5 provides suggestions for the direction of future research in the RTW field and Section 6 offers some final observations.

1.5 SUMMARY

The present research is important because apart from there being a lack of research into LTSA in the UK labour market and the major factors associated with RTW from LTSA, much of the empirical research that has been undertaken has produced mixed and at times ambiguous results. In addition, the RTW research literature remains methodologically and conceptually underdeveloped. Most of the research that has been undertaken has adopted a quantitative research design and focused on a single domain. The direct experiences of the long term sick have been significantly underutilised (Cheadle, Franklin, Wolfhagen, Savarino, Lui, Salley and Weaver, 1994; Krause et al, 2001a; Allebeck and Mastekaasa 2004). The strength of qualitative analyses is the depth and the particularly human aspects of LTSA that the long term sick can describe. The insights gained into the nature of LTSA can subsequently be used to verify the importance of a new barrier to RTW in a prospective epidemiological study.

Conceptually there is a need to develop a conceptual framework for the factors associated with RTW from LTSA to help unify this field. It is proposed that from the perspective of the long term sick, work disability and RTW can be seen systemically, as three co-existing domains; societal, organisational and individual, each populated with factors perceived by the long term sick to be associated with work disability and
their effects, manifested in sickness absence duration and RTW outcome (Loisel et al, 2001; Franche and Krause, 2002). There is a need to understand and integrate these factors and identify key RTW processes in order to guide the design of appropriate and timely interventions that increase the likelihood of the long term sick RTW (Shaw et al, 2002).

In summary, this thesis, with its mixed methods research design will elaborate and advance the RTW research literature methodologically, theoretically and practically. Introducing the qualitative method will go some way to supplementing the largely biomedical literature that currently exists and move knowledge forward in the phenomenological domain. The theoretical integration of individual, organisational, and societal domains is innovative. The knowledge gained is particularly germane to the development and implementation of public policy and practices in order that they are theoretically sound and evidence-based.
2.0 CHAPTER 2 LTSA AND RTW DELINEATED

This chapter defines and delineates LTSA and RTW and summarises the scale of the growing problem of LTSA in the UK labour market. Section 1 introduces and explains the concepts of short and long term sickness absence. Section 2 defines the terms LTSA, RTW and absence phase specificity for this thesis. Section 3 provides an overview of LTSA in the UK labour market, focusing on the number of episodes and the number of working days lost. Section 4 examines the trends in LTSA in the UK labour market. Section 5 is the conclusion. A more comprehensive set of statistics on LTSA in the UK labour market may be found in Appendix 1.

2.1 INTRODUCTION

Sickness absence is associated with various factors including biological, psychological, socio economic and workplace elements (North et al, 1993). In most of the literature on sickness absence, the outcome is either a period of short term sickness absence, or no distinction is made between short and long term sickness absence. Short term sickness absence (STSA) is typically defined as any episode lasting from one to seven consecutive calendar days (North et al, 1993; Smulders, 1980), whereas LTSA is defined variously as any absence lasting fourteen or more consecutive calendar days (Brage, Nygard and Tellnes, 1998), twenty eight or more consecutive calendar days (or 20 or more consecutive working days) (Knutsson and Goine, 1998), through to ninety or more consecutive calendar days (Westerlund, Ferrie, Hagberg, Jeding, Oxenstierna and Theorell, 2004).

There is reason to believe that the factors related to short and long term sickness absence are different (Knutsson and Goine, 1998; Blank and Diderichsen, 1995). The prevalence of LTSA is significantly higher, for example, in higher age groups while STSA is more common in younger age groups (Roelen, Koopmans, de Graaf, van Zandbergen and Groothoff, 2007; North et al, 1993). The relationship between age and LTSA is probably due to the positive correlation between age and prevalence of chronic diseases (Shaw and Polatajko, 2000). A high prevalence of STSA among young employees is thought to reflect a multitude of factors, where factors other than illness might affect absence rates (Steers and Rhodes, 1984). In particular, shift work, sick days allowance, absence control measures, wages, the physical work environment and 'black sickness absence', which refers to sick-listing without any
medical justification whatsoever, are among those most implicated (Harvey and Nicholson, 1999; Steers and Rhodes, 1984; Smulders, 1980). To date, relatively few studies have specifically addressed the problem of LTSA, although the need for more knowledge is emphasised by the political, organisational and scientific communities (Lund, Labriola, Christensen, Bultmann and Villadsen, 2006).

2.2 LTSA, RTW and ABSENCE PHASE SPECIFICITY DEFINED

Long term sickness absence or work disability as it has been frequently termed in the RTW research literature since the 1980’s (Habeck and Hunt, 1999), is usefully defined according to the Americans with Disabilities Act as “physical or mental impairment that substantially limits one or more major life activities” (sect. 12102, ADA, 1990; Schultz, 1953). This definition of disability is much broader than definitions based on a presumably objective set of medical criteria (Krause et al, 2001a). Work disability may be related to congenital disability or illness/injury, and can affect an individual’s ability to carry out their normal work duties. Typically, for people who become incapacitated during their working life, some form of medical treatment/rehabilitation is required in order to help them return to work, while those with congenital or early onset disabilities usually require assistance initially to enter the employment market. An extensive research literature on the vocational rehabilitation needs of people with congenital or early onset disabilities already exists (for example, Garcia, Laroche and Barrette, 2002; Lawthers, Pransky, Peterson and Himmelstein, 2003). Much has been learned about the issues and assistance that this population may require initially to enter the workforce and to ensure permanent integration into it. In particular, physical barriers, lack of accessible transportation, communication difficulties, stigmatisation, the lack of adaptability of work stations, and workload and high performance demands can limit the workplace integration of persons with congenital or early onset disabilities (Lawthers et al, 2003; Barrette, Garcia and Laroche, 2002; Denson, 2000; Kalinowski, Stuart, Armson and Lerman, 1996; Westbrook, Legge and Pennay, 1993).

Since the literature has informed knowledge about congenital disabilities at work, the present research is concerned with people who become incapacitated during their working life and are off work long term as a consequence.

For the purposes of this thesis, an episode of LTSA is defined as all certified sickness absence episodes lasting 20 or more consecutive working days, in other words 28
consecutive calendar days (after Knutsson and Goine, 1998). Duration of an episode of LTSA is defined cumulatively as the unbroken duration of all calendar days lost from work beginning with the date of injury (after Krause, Dasinger, Deegan, Brand and Rudolph, 1999). RTW outcome is defined categorically as: successful RTW, which refers to RTW with the pre injury employer but not necessarily in the pre injury job, within the relevant study time period, and; no RTW in any capacity within the relevant study time period. Absence phase specificity defines the duration of LTSA according to absence phases along a temporal timeline since the date of illness/injury (after Krause and Ragland, 1994). Absence or disability phase cut points were defined as: sub acute phase (continuous work disability/absence of 28 to 90 days), and chronic phase (continuous work disability/absence of 91+ days).

2.3 OVERALL PICTURE OF LONG TERM SICKNESS ABSENCE IN THE UK

Data on the overall scale and broad sectoral patterns of UK sickness absence has been drawn from the Labour Force Survey (LFS), which is representative of the whole of Great Britain but only includes sickness absence episodes that are perceived to be caused or made worse by work, the Confederation of British Industry (CBI) survey which measures all absences from work irrespective of cause¹, and the Cabinet Office which details sickness absence in the UK Civil Service.

2.3.1 Prevalence and Incidence

The LFS (SWI01/02) estimated that 2.3 million individuals in the UK reported suffering from a workplace illness that they believed was caused or made worse by their current or past work (HSE, 2003). The overall prevalence² rate for males was significantly higher than that for females (HSE, 2003). Incidence³ rates for males and females were not significantly different. Males aged 35-44 and females aged 45-54 carried the highest incidence rates and both were significantly higher than the overall gender specific rates (HSE, 2003).

Geographically, Wales had a significantly higher prevalence rate than Great Britain and England, while Scotland was significantly lower than the rate for Great Britain and England (HSE, 2003). Within England, the highest prevalence rates were Yorkshire

¹ The CBI 'cause of absence' categories include general sickness (physical and mental), personal problems, lack of commitment, poor workplace morale and impact of long hours.
² Prevalence includes long standing as well as new cases
³ Incidence refers to new cases
and the Humber, the South West and the West Midlands and the East had the lowest prevalence rate (HSE, 2003).

Socio-economically, of the eight socio-economic groupings used by the LFS (1 being the highest), those classified as socio-economic groups 2 (lower managerial and professional) and 5 (lower supervisory and technical) carried both the highest prevalence and incidence rates, and both were significantly higher than for all other categories. Socio-economic group 7 (routine and semi-routine occupations) carried the lowest prevalence and incidence rates, and both were significantly lower than for all other categories (HSE, 2003).

Industrially, absence rates in the private sector were significantly lower than those in the public sector (CBI, 2001, 2004; Stafford, 2000). Across industry, prevalence rates for work related illness were highest for agriculture, hunting, forestry and fishing, and public administration and defence (HSE, 2003). At the other end of the scale, hotels and restaurants, wholesale and retail trade and real estate sectors carried below average rates.

Occupationally, absence rates among manual employees were significantly higher than those of non-manual employees (CBI, 2001, 2004; Stafford, 2000). Across occupational groups, prevalence rates for work related illness were highest for protective service occupations (e.g. police officers, sergeants and below, fire officers, and prison officers), health and social welfare associate professionals (e.g. nurses), skilled construction and building trades, and teaching and research professionals (absence rates were 1.5 to 2 times the overall average) (HSE, 2003). Inversely proportional relationships between occupational level and sickness absence, and length of sickness absence episode and grade were observed in both CBI and Civil Service data (Cabinet Office, 2004).

Illness type was dominated by two groups, musculo-skeletal disorders and stress, depression or anxiety. Approximately seventy-five per cent of the total number of people suffering a work related illness in 2001/02 was suffering from one of these (HSE, 2003). Musculo-skeletal disorders (bone, joint or muscle problems) were by far the most common, affecting an estimated 1 012 000 people, while stress, depression or anxiety was the second most commonly reported illness, affecting an estimated 509
000 people. This was followed by respiratory problems (137,000 people) (HSE, 2003). The diseases for which male prevalence rates were significantly higher than rates for females were musculo-skeletal disorders, respiratory problems and cardiovascular conditions. For females, the incidence rate for stress, depression or anxiety was significantly higher than the male rate (HSE, 2003).

2.3.2 Working Days Lost

The number of working days lost to the 2.3 million people in the previous 12 months was an estimated 29.8 million, the majority of which was taken by a relatively small group. One third of sufferers took no time off work, over one quarter took at least 4 weeks off work, another ten per cent took more than 6 months off work, and one in forty people took at least nine months off work (HSE, 2003; Trades Union Congress, 2000). The average time taken in sick leave by people with a work related condition was 22.2 days for the 12 month period (HSE, 2003).

Males took more time off than females, however mean days lost per worker were not significantly different (HSE, 2003). For males the estimated average days lost per worker generally increased with age. No clear pattern emerged for females, although mean days lost in the youngest age band, 16-24, was significantly lower than all other age groups (HSE, 2003). In contrast, Civil Service data showed that female employees had a higher rate of sickness absence compared to male staff, characterised by both higher mean numbers of episodes and days lost per annum. Moreover, females were more likely to experience absences of greater than one month’s duration compared to males (Cabinet Office, 2004).

Industrially, the highest mean number of days lost per worker were in extractive and utility supply industries, public administration and defence and health and social work (HSE 2003). Occupationally, the mean time lost per worker was highest in protective service occupations, followed by health and social welfare associate professionals (HSE, 2003).

Working days lost to different illness types were concentrated in two categories, stress, depression or anxiety followed by musculo-skeletal disorders (HSE, 2003). Stress, depression or anxiety accounted for an estimated 12.8 million days (42% of

*Includes protective service occupations (e.g. police officers)*
total days lost) and musculo-skeletal disorders accounted 11.8 million days (39% of total days lost). The mean annual days lost per case for stress, depression or anxiety was 28.5 days, which was significantly higher than for all other work-related illness. The rate of mean days lost for females was significantly higher than the corresponding rate for males. For musculo-skeletal problems, the mean annual days lost per case was 19.4 days and there was no significant difference between the sexes (HSE, 2003).

2.4 TRENDS IN LONG TERM SICKNESS ABSENCE IN THE UK

2.4.1 Prevalence
There has been a decline in the estimated prevalence of self reported work related illness over the last ten years and the overall number of people reporting such illnesses is significantly fewer than in 1990 and 1995 (HSE, 2003; HSE, 2005).

2.4.2 Working Days Lost
While the prevalence of self reported work related illness has been falling steadily in the UK over the last decade, the associated estimated working days lost has been rising. Comparing figures from 2004/05 and 1995, there was an estimated 29.8 million working days lost through work related illness in 2004/05, while in 1995 there was an estimated 18 million working days lost. Allowing for increases in numbers employed, this still represents a significant increase in working days lost (HSE, 2005; HSE, 2003; Cabinet Office, 2000; 2001; 2002; 2003).

2.4.3 Types of Illness
There have been substantial changes in the prevalence of different sickness categories. Historically, musculo-skeletal disorders have always been the most commonly reported conditions and have accounted for the most time lost. SWI95 figures show that musculo-skeletal disorders accounted for nearly 60 per cent of all cases and 56 percent of total days lost while stress, depression or anxiety was responsible for 15 per cent of all cases and 25 per cent of total days lost (HSE, 2005). By 2005, musculo-skeletal disorders accounted for only 44 per cent of all reported cases of work related illness and 39 per cent of total days lost, while stress, depression or anxiety accounted for 33 per cent third of all cases and nearly 42 per
cent of total days lost. The estimated prevalence rate of stress and related conditions is currently around double the level it was in 1990 while the prevalence rate for musculo skeletal disorders is now lower than it was in 1990 (HSE, 2003; 2005).

2.4.4 Working Days Lost Per Episode of Sickness Absence

The length of sickness absence episodes has been increasing over the last ten years. The mean length of overall work related sickness absence episodes increased from 13.9 days in 1995 to 22.2 days in 2004/05 (HSE, 2005). For stress, depression or anxiety, the mean length per episode has increased from 16.16 days in 1995 to 28.5 working days in 2004/05, making it the fastest growing sickness absence category. For the same period, the mean length per episode for musculo-skeletal disorders increased from 13.08 days to 19.4 working days (HSE, 2005).

2.4.5 Incidence of Long Term Sickness Absence

The proportion of long term sickness absence episodes as a percentage of total episodes has increased from 3.9 per cent to 5.7 per cent over the last four years. Moreover the number of people taking one or more episodes of long term sickness absence has increased from 8.5 per cent to 10.6 per cent for the same period (Cabinet Office, 2003). This means that there has been an increase in the proportion of total working time lost that is attributable to long term sickness absence. In 1978/79, approximately 20 per cent of all sickness absence in Britain was considered long term (Wells, 1981), but by 2002, this figure was just under 70 per cent (Cabinet Office, 2003; CBI, 2003).

These changes are thought to be largely attributable to observed changes in absence duration: between 1995 and 2001/2002 the average days off per sickness absence episode increased by 9 working days while the average days off per episode for stress, depression or anxiety increased by 13 working days. Furthermore, the rise in the prevalence of stress, depression or anxiety over time has likely contributed: this category accounted for 14 per cent of all sickness absence episodes in 1990 and 34 per cent in 2001/2002 (HSE, 2003).

2.4.6 Summary of Trends in UK Sickness Absence

Firstly, musculo-skeletal disorders followed by stress, depression or anxiety have been by far the most commonly reported work related illnesses in all LFS surveys
since they began in 1990 (HSE 2003; CBI, 2003; Cabinet Office, 2003). Estimated prevalence rates for both disease groups increased significantly between 1990 and 1995. However, by 1998/99, while the rate for stress, depression or anxiety continued to rise significantly, the rate for musculo-skeletal problems fell significantly. In 2004/2005 musculo-skeletal disorders remained the most prevalent, albeit decreasingly, work related sickness absence category. However stress, depression or anxiety recorded a prevalence level that was more than twice what it had been a decade previously and it has the highest incidence of work related sickness absence episodes.

Secondly, the overall number of cases of work related illness was significantly lower in 2002 than a decade previously, yet the estimated time lost to work related illness increased significantly during that time, and levels have almost doubled in the last 6 years. This is due at least in part to significant increases in the duration of work related sickness absence episodes and the increase in absence episodes with stress, depression or anxiety diagnoses.

Thirdly, most of the LTSA among the UK working population is taken by a relatively small group of people. In 2003, LTSA episodes counted for approximately 5 per cent of the total number of absence episodes, and these were taken taken by 10 per cent of the people who took sickness absence in that year. These absences accounted for roughly 66 per cent of the total working days lost to sickness absence (Cabinet Office, 2004).

2.5 CONCLUSIONS

Long term sickness absence is a major health, social and employment problem that is growing at a concerning rate for the UK Government, employers, health care systems and individuals. Perhaps most worrying is the increasing amount of absence that is becoming long term and the changing UK illness profile which in terms of time lost, is now dominated by mental ill health and to a lesser extent musculoskeletal diagnoses. The scale of the problem is vast and its consequences can be profound.

Timely return to work is generally in the interests of both the ill/injured and their employers. When return is delayed, the ill/injured can lose more than their earnings; skills and work habits depreciate when people are off work a long time, leading to a
decline in future productivity and earnings. This wastes investments in education and training that have been made by both workers and their employers. A long spell off work can also induce employers to find replacements to maintain continuity of work. When a person looks for a new job, potential employers may view a long period off work as evidence that the job applicant is likely to be a less valuable employee.

At the same time, early return to work benefits employers because they typically pay for long spells off work either directly or indirectly. In addition, employers must pay substantial adjustment costs to maintain activities in which the ill/injured employee was employed. These include costs of additional hiring or of reorganising staff in the remaining workforce.

Returning the ill/injured to productive employment in a timely manner is a beneficial aim for all parties. Gaining answers to the research question: what are the barriers and enablers to returning to work from LTSA from the perspective of the long term sick and the processes involved in work disability and RTW will significantly contribute to our understanding of how individuals, organisations and society can better manage LTSA and achieve successful RTW outcomes. As a first step to answering the research question, a review of the occupational/workers' compensation rehabilitation and RTW research literatures will be undertaken in order to distil the practical and theoretical knowledge that has been accumulated to date on long term sickness absence and return to work outcomes. This is addressed in Chapters 3 and 4.
3.0 CHAPTER 3 A REVIEW OF THE LITERATURE

This chapter is divided into 4 main sections. Section 1 provides a brief introduction to, the challenge of reviewing the RTW research literature. Section 2 introduces the conceptual framework of this thesis and is used to guide the literature review. Section 3 describes the existing findings from the occupational/workers' compensation rehabilitation and RTW research literatures on the variables that influence the duration of long term sickness absence (LTSA) and return to work (RTW) outcomes. A summary of these findings is then given, which is followed by an analysis of the limitations of the reviewed literature.

3.1 INTRODUCTION

A systematic review of the RTW literature is complicated because of its long heritage and vast coverage. Initially referred to as vocational rehabilitation, RTW research has its origins in the United States of America (USA) dating back to the 1940’s and the USA remains the primary source of research in this field (a brief historical account of the international development is provided in Appendix 2).

Over the past twenty years research has proliferated in this field such that today, work disability is evidenced to be multifactorial in nature, with a combination of medical, psychosocial, vocational, organisational and socioeconomic factors contributing to prolonged work disability or delayed functional recovery (Lancourt and Kettelhut, 1992; Feuerstein, Menz, Zastowny and Barron. 1994). Moreover, determinants of RTW may vary according to jurisdictional differences in compensation, insurance and disability, and local community features such as unemployment levels, transport, housing and healthcare provision (Galizzi and Boden, 1996). Evidence is spread across the writings of many diverse disciplines including epidemiology, medicine, psychology, sociology, economics, public policy and unpublished reports from insurance companies, particularly those in re insurance, and government departments.

Potentially valid bibliographic search subjects include return to work, work disability, work disability and return to work, occupational rehabilitation, workers' compensation, work injury/illness and return to work, litigation and work disability, litigation and return to work, UK Disability Discrimination Act (1995), prediction of return to work, prediction of work disability, long term sickness absence, barriers to return to work,
modified duties, return to work outcome and a wide variety of medical diagnoses. The size of the challenge may be illustrated by an early search strategy for this thesis which input seven of these keywords and yielded over 10,000 citations.

A more refined search strategy using the words work, disability, compensation, return and rehabilitation yielded relevant journal articles for this review. Much of the research has been undertaken in the US, Canada, Australia, Scandinavia, and the Netherlands, with fewer studies having been conducted in the UK (DWP, 2004). This research literature will be reviewed for evidence of factors that have been found to influence the duration of LTSA and RTW outcomes. The discussion will be guided by a conceptual framework.

### 3.2 CONCEPTUAL FRAMEWORK

Work disability and RTW are not uniquely biomedical outcomes, but are processes influenced by a variety of social, psychological, and economic factors not necessarily specific to the underlying or precipitating injury or illness (Krause and Lund, 2004; Verbrugge and Jette, 1994). Over one hundred factors have been associated with work disability and RTW (Krause et al, 2001a). The research field on LTSA and RTW covers a wide spectrum of concepts from different scientific disciplines; as a consequence, many different approaches, explanatory models and different sickness absence and RTW measures are used (Allebeck and Mastekaasa, 2004). Similar terminology is used in the fields of occupational health, public health, work disability and rehabilitation research but the terminology is not standardised (Allebeck and Mastekaasa, 2004).

For this thesis, a conceptual framework of the work disability experience from the perspective of the long term sick was developed. This framework takes into account the dynamics of the work disability process and encompasses both LTSA and RTW outcome, viewing them as a developmental phenomenon (Loisel et al, 2001a; Franche and Krause, 2002; Pransky, Gatchel, Linton, and Loisel, 2005). It is argued that the work disability experience or LTSA is best conceptualised systemically, as three identifiable coexisting domains; individual, organisational and societal, each populated with factors perceived by the long term sick to be associated with work disability and their effects, manifested in work disability duration and RTW outcome. These domains represent the broad areas that can meaningfully be used to unify the
numerous independent factors that have been investigated within the reviewed research literature.

The conceptual framework is partly inspired by the ADA (1990) definition of disability which goes beyond the purely medical concept of disability. In this respect it is also inspired by the systemic view of rehabilitation which is founded on social systems theory and emphasises the systems which the work disabled inhabit and the influence that different systems may have on them (Stubbins, 1984; Cottone, 1987). The framework is also inspired by the construct of cognitive appraisal, an individual's interpretation and evaluation of an event (Lazarus and Folkman, 1984; Lazarus, 1991). It is also inspired by the concept that the experience of work disability or LTSA is a dynamic and time related process (Loisel et al., 2001a).

LTSA is a multidimensional problem that is reflected in the 3 domains: yet little is known about the primary and secondary reasons for prolonged work disability (Loisel et al, 2005, Janssen, van den Heuvel, Beurskens, Nijhuis, Schroer and van Eijk, 2003; Loisel et al, 2001a). Primary refers to those elements which have a direct effect on the long term sick while secondary refers to those elements which develop in response to the effects of a primary element and subsequently influence the long term sick (Loisel et al, 2005).

The present conceptualisation asserts that the work disability experience is defined by the long term sick via a process of appraisal of the individual, organisational and societal elements, the outcome of which is reflected in work disability duration and RTW outcome status at any given time. The framework therefore defines the work disability experience according to a 'cognitive appraisal model', which can be distinguished from the medical definition that views disability as a biological characteristic of the individual (Lazarus and Folkman, 1984). Cognitive appraisal is the "process of categorising an encounter, and its various facets, with respect to its significance for well-being" (Lazarus & Folkman, 1984, p.31). The framework depicts factors associated with work disability as perceptions, that is, the individual's interpretation of one or more events (Eden 1990). This means that identical impairments may result in different degrees of work disability according to the person's perception (Shaw et al, 2002). In one case, impairment may have no incapacitating effects at all, whereas in another case it may have severe consequences on the ability to perform work. Likewise, the influence of any domain
Barriers and Enablers to RTW from LTSA
Chapter 3 Literature Review

factor will be determined by the long term sick and their perception and appraisal of it will determine work disability duration and RTW outcome.

The conceptual framework is presented in Figure 3.1. The **societal** domain relates to the society in which workers function. The social security system, the health care system, and the economic conditions may all potentially influence LTSA and RTW outcomes. For example, an over stretched healthcare system that results in lengthy delays between injury and receiving medical diagnostics could increase the period of incapacity.

The **organisational** domain relates to the organisational context in which workers function. This includes the size of the organisation, company health care activities, people management policies and practices, management practices and workplace attitudes and labour/trade union relations.

The third domain relates to the **individual**. It includes personal factors which cover; demographic, psychological, social, medical, and the individual working environment which incorporates factors relating to; the physical and mental demands of the job, and an employee’s relations with co-workers.

The integrative approach adopted in this framework is critical to further understanding of the multiple factors associated with prolonged work disability and the RTW process (Turner et al, 2000). It is also essential for the design of RTW interventions to maximise the likelihood of them being appropriately matched and targeted to the long term sick.

The constituents within each domain are derived from the research literatures. This literature will now be reviewed, to demonstrate the populating of the constituent elements in the three domains of interest. Each of the elements will be examined for their relevance to duration of LTSA and RTW outcomes which are increasingly being used as measurements of outcome in the RTW research literature and as performance measures for health care workers, vocational rehabilitation services and insurers (Krause et al, 2001a). These measures are also indicators of the overall burden of LTSA on society.
3.3 FACTORS AFFECTING LTSA AND RTW OUTCOMES

3.3.1 Societal Domain Factors

Societal domain factors associated with RTW include workers compensation/ social benefits systems, legal representation, occupational health services, and labour market conditions. Each of these is discussed in turn with a summary table which provides details of each of the studies reviewed.

3.3.1.1 Workers Compensation / Social Benefits System

Workers' compensation is an insurance system that provides workers with income support and coverage for medical expenses resulting from a work-related injury. The
period of incapacity associated with the injury may be brief with full recovery, or it may continue indefinitely and preclude the individual from returning to any work (Crook, Moldofsky, and Shannon, 1998). In the UK, the Social Security system operates unilaterally and employees on LTSA are entitled to statutory sick pay (employers are reimbursed by the Government) and thereafter, Incapacity Benefits (a Social Security payment). Employers are also legally obliged to hold Employers Liability Insurance in the event that an employee sues for a lack of duty of care.

The costs associated with workers' compensation and social security claims are a common issue around the world (Crook et al., 1998; Henderson, Glozier and Elliot, 2006; Turner et al., 2000). An emerging trend is that a small proportion of work disabled account for a disproportionate amount of the costs, both in time lost and financially. For example, a study of workers’ compensation claims for a large company in the north east of the USA reported that approximately 60 per cent of claims cost US$1000 or less, but 6.8 per cent of claims had an average length of disability greater than one year and accounted for 60 per cent of the total workers’ compensation costs and 75 per cent of the total lost-time days (Hashemi, Webster, Clancy, and Courtney, 1998). These figures are similar to international trends observed in other studies of the American (Webster and Snook, 1994; Williams, Feuerstein, Durbin and Pezzullo, 1998), Australian (WorkCover Western Australia, 2000; Lord, 2001) and Canadian Workers’ Compensation Systems (Crook et al., 1998).

Concerns about the costs associated with workers compensation and social security and the possible disincentives to RTW that are created by the income workers derive from it is not new (Brown, 2006). The late 19th and early 20th centuries saw an increase in the number of claims for ‘nervous shock’ and other injuries following railway accidents in the UK and Europe, and speculation began to grow about the effect of income replacement on claims and recovery.

More recently, the potential for income replacement to act as a barrier to RTW has been investigated by the UK Government as part of its initiative to develop a framework for vocational rehabilitation (DWP, 2004). Stakeholders identified the benefit system as a disincentive to RTW in the following ways:
- the social security rules present a minefield of uncertainty for those considering RTW;
• the ‘Permitted Work’ rules (ability to earn around £70 a week for 6 months and receive non-income related benefits) are very useful, if not generous, in encouraging a return to part time work but are not effective in encouraging people to earn more and work longer if they are able;
• fear of losing benefits/return to work seen as a financial risk; and
• low pay (and status) from the sort of jobs people get after long illness compared with (better/adequate) income from income benefits, Housing Benefit, insurance pay outs etc. (DWP, 2004).

In the UK, statistics suggest there are 2.5 million people of working age with a disability or long term illness who receive Incapacity Benefit or Income Support. Of these 2.5 million, only 5 per cent leave benefit for work each year (DWP, 2004).

The RTW research literature provides further insights on the effects of wage replacement as a potential barrier to RTW. There is substantial controversy over the effect of compensation on the decisional balance regarding RTW, i.e. the pro’s and con’s of RTW. Table 3.1a shows that while some studies have found no effect of compensation on RTW outcomes (17, 18), the majority of studies have found a significant, positive association with duration of work disability (1-16). However, a number of these studies also show that irrespective of compensation status, most people do eventually RTW.

In one of these studies (1) despite initial disability status, most patients RTW and compensated patients were not significantly less likely to have RTW than their non-compensated peers after four years. Similarly, in another study (6) despite striking differences between compensation and non compensation patient groups in terms of duration off work pre operatively (122 vs 3 days) and post operatively (222 vs 30 days) for identical ligament reconstruction surgery and rehabilitation, at follow up an average 27 months later, all non compensation patients had RTW and all but two compensated patients had RTW. In another study (4) although the two groups differed significantly in length of time to RTW, the study did not control for the length of unemployment prior to baseline assessment, an important predictor to RTW.
### Table 3.1a Societal Domain Factors of RTW Outcomes

<table>
<thead>
<tr>
<th>Variable/Study</th>
<th>N</th>
<th>Study Type</th>
<th>Sample</th>
<th>Effect on Work Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beneficiary Workers Compensation / Social Security Benefits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Atlas et al, 2000</td>
<td>326</td>
<td>PS</td>
<td>US. Workers attending community practices, sciatica</td>
<td>Prolonged disability duration</td>
</tr>
<tr>
<td>2. Sander and Meyers, 1986</td>
<td>248</td>
<td>RS</td>
<td>US. Railroad workers, low back injury</td>
<td></td>
</tr>
<tr>
<td>3. Tomaras et al, 1997</td>
<td>200</td>
<td>RS</td>
<td>US. Hospital outpatients, cervical radiculopathy</td>
<td></td>
</tr>
<tr>
<td>4. Greenough and Fraser, 1989</td>
<td>300</td>
<td>RS</td>
<td>US. Hospital outpatients, back pain</td>
<td></td>
</tr>
<tr>
<td>6. Noyes and Barber-Westin, 1997</td>
<td>38</td>
<td>PS</td>
<td>US. Hospital outpatients, ligament reconstruction</td>
<td></td>
</tr>
<tr>
<td>7. Bednar et al, 1998</td>
<td>275</td>
<td>PS</td>
<td>US. Hospital outpatients, mixed work related injuries</td>
<td></td>
</tr>
<tr>
<td>8. Klekamp et al, 1998</td>
<td>82</td>
<td>RS</td>
<td>US. Hospital outpatients, lumbar disectomy</td>
<td></td>
</tr>
<tr>
<td>9. Carmona et al, 1998</td>
<td>59</td>
<td>RS</td>
<td>US. Hospital outpatients, carpel tunnel syndrome</td>
<td></td>
</tr>
<tr>
<td>10. Mackenzie et al, 1998</td>
<td>312</td>
<td>PS</td>
<td>US. Trauma centres, lower extremity fractures</td>
<td></td>
</tr>
<tr>
<td>12. Feuerstein et al, 1999</td>
<td>1051</td>
<td>PS, LR</td>
<td>US. Carpel tunnel syndrome</td>
<td></td>
</tr>
<tr>
<td>15. Nagle et al, 1996</td>
<td>640</td>
<td>PS</td>
<td>US. Hospital outpatients, carpel tunnel release</td>
<td></td>
</tr>
<tr>
<td><strong>Beneficiary Workers Compensation / Social Security Benefits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Hadler et al, 1995</td>
<td>1633</td>
<td>PS</td>
<td>US. Medical practices, back pain</td>
<td>No effect on disability duration</td>
</tr>
<tr>
<td>18. Palt et al, 1999</td>
<td>38</td>
<td>PS</td>
<td>US. Medical practice, cervical fusion</td>
<td></td>
</tr>
<tr>
<td><strong>Beneficiary Workers Compensation / Social Security Benefits</strong></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>1. Atlas et al, 2000</td>
<td>326</td>
<td>PS</td>
<td>US. Workers attending community practices, sciatica</td>
<td>Higher levels of self reported functional incapacity</td>
</tr>
<tr>
<td>2. Tomaras et al, 1997</td>
<td>200</td>
<td>RS</td>
<td>US. Hospital outpatients, cervical radiculopathy</td>
<td></td>
</tr>
<tr>
<td>4. Greenough and Fraser, 1989</td>
<td>300</td>
<td>RS</td>
<td>US. Hospital outpatients, back pain</td>
<td></td>
</tr>
<tr>
<td>19. Rainville et al, 1997</td>
<td>192</td>
<td>PS</td>
<td>US. Spine Care centre, low back pain</td>
<td></td>
</tr>
<tr>
<td><strong>Beneficiary Workers Compensation / Social Security Benefits</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>17. Hadler et al, 1995</td>
<td>1633</td>
<td>PS</td>
<td>US. Medical practices, back pain</td>
<td>No effect on levels of self reported functional incapacity</td>
</tr>
<tr>
<td>18. Palt et al, 1999</td>
<td>38</td>
<td>PS</td>
<td>US. Medical practice, cervical fusion</td>
<td></td>
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<tr>
<td><strong>Beneficiary Workers Compensation / Social Security Benefits</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7. Bednar et al, 1998</td>
<td>275</td>
<td>PS</td>
<td>US. Hospital outpatients, mixed work related injuries</td>
<td>Greater number of medical/rehabilitation treatments</td>
</tr>
<tr>
<td><strong>Level of income replacement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Engstrom and Erikson, 2002</td>
<td>280</td>
<td>RS</td>
<td>Sweden. Sick registered / unemployed, mixed injuries</td>
<td>Higher levels related to prolonged disability duration</td>
</tr>
<tr>
<td>22. Johnson and Ondrich, 1990</td>
<td>1040</td>
<td>RS</td>
<td>US. Workers compensation clients, mixed injuries</td>
<td></td>
</tr>
<tr>
<td>7. Bednar et al, 1998</td>
<td>275</td>
<td>PS</td>
<td>US. Hospital outpatients, mixed work related injuries</td>
<td></td>
</tr>
<tr>
<td>23. Liao et al, 2001</td>
<td>171</td>
<td>RS</td>
<td>US. Firefighters, mixed Injuries</td>
<td></td>
</tr>
<tr>
<td>24. Feuerstein et al, 1994</td>
<td>1147</td>
<td>PS, LR</td>
<td>US. Chronic back pain</td>
<td></td>
</tr>
<tr>
<td>25. Russor, 1991</td>
<td>2788</td>
<td>RS</td>
<td>US. Manufacturing companies, work related mixed injuries</td>
<td></td>
</tr>
<tr>
<td><strong>Level of income replacement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Galizzi and Boden, 1996</td>
<td>118,965</td>
<td>RS</td>
<td>US. Wisconsin compensation system, mixed injuries</td>
<td>Lower levels related to shortened disability duration</td>
</tr>
</tbody>
</table>
In terms of the influence that level of income replacement may have on duration of LTSA and RTW outcomes, international evidence suggests that the generosity of income replacement increases the duration of work absence. The Netherlands for example, which has relatively generous social security regulations, is among the countries with the highest incidence and duration of sickness absence (Geurts, Buunk, and Schaufeli, 1994; Prins, 1990). Prins (1990) compared frequency and duration of sickness absence in Belgium, Germany and the Netherlands and found that the Netherlands had a comparatively high rate of LTSA. Macro-social aspects, in particular, the social insurance system were implicated (Prins, 1990).

In the USA, while not having a comprehensive federal social security system it does have well developed vocational rehabilitation (VR) systems operating throughout many of its states, and there is good evidence to suggest that the level of benefits may have a bearing on RTW behaviour (7). In Australia a similar picture has evolved such that the level of benefit payments that workers receive while on LTSA has been identified as an inhibiting factor to RTW (Kenny, 1995a).

The majority of studies in Table 3.1a confirm this perspective (20-27, 7, 11) with all showing that higher levels of income replacement are associated with prolonged disability duration and a lower probability of RTW (26, 27). As the ratio between compensation (income replacement) benefits and original income increased, there was a corresponding increase in both the frequency and duration of LTSA (21, 22, 25). A breakeven income replacement rate for RTW was determined to be anything less than 75 per cent of pre injury wage; anything above this level was seen to create little incentive to return to work (Hester, Decelles and Gaddis, 1986).

While a majority of studies have reported negative relationships between income...
replacement, level of income replacement and RTW outcomes, some studies have found no such effects (17, 18). In one study (17), compensated workers reported higher levels of feeling unwell, but in both there were no significant differences in functional capacity or RTW rates among the compensation and non-compensation patients.

Other studies have investigated the relationship between compensation of workers and RTW outcomes by comparing RTW rates for self employed, self insured workers and employed workers (4, 32). Both studies found that self-employed compensation patients had similar outcomes to the employee, non-compensated patients. In one study (32), compensation patients were more frequently symptomatic (111 versus 33 days) and had a mean duration of work absence that was three times that of self insured patients. Multivariate analysis confirmed type of insurance coverage was the only predictive variable of post-operative outcome.

The conclusion in the majority of studies reviewed is that workers in receipt of income replacement have poorer outcomes compared with non-income replacement patients with similar injuries/illnesses as measured by functional capacity, duration of LTSA or RTW outcome. Despite methodological limitations, this implies that personal financial gain may be a key factor when explaining the poorer RTW results of patients receiving income replacement compared to those who are not and suggests higher income may encourage reduced work force participation.

3.3.1.2 Legal Representation/Litigation

Closely allied to the notion of worker's compensation is legal representation. Some people are injured or suffer other health problems in circumstances that permit them to make claims for compensation because the injury/illness suffered is attributable to the negligence of a third party. Such claims typically arise from road traffic accidents and the workplace. Literature on the impact of litigation on duration of LTSA and RTW outcomes has produced mixed results.

Some studies have produced evidence that suggests ongoing legal action can result in poorer outcomes and hinder a RTW (1-13). One of the prevailing themes in the litigation research has been the exaggeration, fabrication or prolongation of health problems or disability in pursuit of enhanced compensation. The process of being
legally represented requires that a worker repeat the history of their injuries/illness for medical documentation from one specialist to another, sometimes in a climate of skepticism or hostility (Kenny, 1995d). It has been suggested that this, together with the aggravation of lengthy delays in the completion of a case may further exacerbate symptoms (Parker, 1977). The time between filing and completing a claim can be up to five years, during which time the injured worker may feel obliged to maintain their reports of incapacity and pain in order to continue receiving income replacement and any lump sum settlement that they believe is ‘owing’ to them (Pearson et al., 1999). Support for this perspective comes from studies that have used populations where workers can sue for pain and suffering. These studies have suggested that it is not in the worker’s interest to RTW until a claim is finalised, since RTW can impact significantly on the quantum settlement (Duncan, 1996; Fordyce, 1995).

In one study (8) for example, legal representation was seen as undermining the relationship between worker and stakeholders such that trust was replaced by mistrust and endless ‘disputes’. The study concluded that in such adversarial situations, where rewards are linked quantifiably to degree of injury/illness, workers can become focused on financial gains and determine that ongoing income replacement and any lump sum pay out is more important than functional restoration and a RTW.

In another study (13), lawyer involvement was seen to have a strong positive relationship with RTW outcome; 73% of cases legally represented did not RTW. Moreover, a strong relationship between lawyer involvement and negative case outcomes, such as client refusal of services and requesting case closures, was demonstrated. Seventy six per cent of interrupted and/or prematurely closed cases had lawyer involvement whereas seventy three per cent of uninterrupted cases did not have lawyer involvement.

Psychological aspects of litigation have also been investigated. In one study (17), the outcomes of a six week behavioural treatment programme for patients with chronic back pain found that patients without pending litigation obtained greater reductions on Hypochondriasis and Hysteria scales (Minnesota Multiphasic Personality Inventory, Hathaway and McKinley, 1967) and greater improvements on two mobility outcomes than patients with litigation pending. Interestingly, the litigation pending group also showed significant improvements on the mobility outcomes.
Table 3.1b Societal Domain Factors of RTW Outcomes

<table>
<thead>
<tr>
<th>Variable/Study</th>
<th>N</th>
<th>Study Type</th>
<th>Sample</th>
<th>Effect on Work Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Litigation Pending</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Katz et al, 2005</td>
<td>181</td>
<td>PS</td>
<td>US. Private medical practices, carpel tunnel syndrome</td>
<td>Prolonged disability duration</td>
</tr>
<tr>
<td>2. Blackwell et al, 2003</td>
<td>502</td>
<td>RS</td>
<td>US. Montana VR Services, mixed injuries</td>
<td></td>
</tr>
<tr>
<td>3. Klekamp et al, 1998</td>
<td>82</td>
<td>RS</td>
<td>US. Hospital outpatients, lumbar discectomy</td>
<td></td>
</tr>
<tr>
<td>5. Gallagher et al, 1995</td>
<td>169</td>
<td>PS</td>
<td>US. Social Security applicants, back pain</td>
<td></td>
</tr>
<tr>
<td>6. Wright et al, 1999</td>
<td>1198</td>
<td>PS</td>
<td>US. Rehabilitation Unit, chronically disabled</td>
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</tr>
<tr>
<td>9. Feuerstein et al, 1994</td>
<td>1147</td>
<td>PS, LR</td>
<td>US. Chronic back pain</td>
<td></td>
</tr>
<tr>
<td>10. Greenough and Fraser, 1989</td>
<td>300</td>
<td>RS</td>
<td>US. Hospital outpatients, back pain</td>
<td></td>
</tr>
<tr>
<td>11. Fredrickson et al, 1988</td>
<td>168</td>
<td>PS</td>
<td>Netherlands. Rehabilitation unit, chronic low back pain</td>
<td></td>
</tr>
<tr>
<td>12. Abram et al, 1981</td>
<td>337</td>
<td>PS</td>
<td>US. Hospital outpatients, chronic pain</td>
<td></td>
</tr>
<tr>
<td>13. Dichriff, 1993</td>
<td>172</td>
<td>RS</td>
<td>US. Rehabilitation unit, mixed injuries</td>
<td></td>
</tr>
<tr>
<td><strong>Litigation Pending</strong></td>
<td></td>
<td></td>
<td></td>
<td>No effect on disability duration</td>
</tr>
<tr>
<td>15. Braun et al, 1999</td>
<td>225</td>
<td>PS</td>
<td>US. Hand Centre, Carpel Tunnel Release</td>
<td>Elevated scores on Hypochondriasis and Hysteria scales of MMPI and higher functional incapacity</td>
</tr>
<tr>
<td>16. Dworkin et al, 1985</td>
<td>454</td>
<td>PS</td>
<td>US. Rehabilitation setting, chronic pain</td>
<td></td>
</tr>
<tr>
<td><strong>Litigation Pending</strong></td>
<td></td>
<td></td>
<td></td>
<td>No effect on functional capacity</td>
</tr>
<tr>
<td>17. Trief and Stein, 1985</td>
<td>81</td>
<td>PS</td>
<td>US. Rehabilitation setting, chronic back pain</td>
<td></td>
</tr>
<tr>
<td>18. Carron et al, 1985</td>
<td>315</td>
<td>PS</td>
<td>Joint US &amp; NZ. Outpatient setting, low back pain</td>
<td></td>
</tr>
<tr>
<td><strong>Litigation Pending</strong></td>
<td></td>
<td></td>
<td></td>
<td>No effect on employment status</td>
</tr>
<tr>
<td>20. Swanson et al, 1978</td>
<td>13</td>
<td>PS</td>
<td>US. Pain management programme, chronic pain</td>
<td></td>
</tr>
<tr>
<td><strong>Litigation Settlement</strong></td>
<td></td>
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</tr>
<tr>
<td>10. Greenough and Fraser, 1989</td>
<td>300</td>
<td>RS</td>
<td>US. Hospital outpatients, back pain</td>
<td></td>
</tr>
</tbody>
</table>

The disparity between levels of functional capacity and levels of Hypochondriasis and Hysteria was interpreted as evidence of the psychological motivators that can be associated with litigation, namely the use of physical symptoms for financial gain, in so far as higher levels of pain were reported but were not substantiated by the physical findings. This conclusion was however only tentative.

Others have suggested that litigation can contribute to prolonged disability, further deterioration of a patient's condition, and increased distress (18). These affective states may contribute to poor clinical response, including increased pain complaints and poor motivation to RTW (Leavitt, 1990). To counter this it has been suggested that the priority presently given to litigating compensation claims might be better spent on restorative initiatives aimed at rapid RTW (21). Calls have been made for
alternative methods (outside the courts) to be explored in order that patients may proceed successfully with rehabilitation and RTW (21; Kenny, 1998).

In contrast to studies that have found pending litigation to be a barrier to RTW, other studies have found no such relationship. Studies that have considered the relationship between pending litigation and outcome in chronic pain programmes reported no differences in treatment response between litigated and non litigated cases (19, 20). In one study (19) the recovery and RTW outcomes of 225 patients who underwent carpal tunnel release were considered on the basis of a single variable, legal representation. While one third was legally represented, no significant difference was found between the represented and unrepresented workers for functional recovery or RTW outcomes. Similarly, another study (16) examined the relationship between litigation and treatment and RTW outcomes in 454 chronic pain patients. Litigation was not shown to be a significant predictor of long term outcome.

Just as many studies which have found no relationship between litigation and treatment and RTW outcomes have called for a redirection of attention away from the deleterious effects of the 'compensation neurosis' stereotype (14, 16, 21), so too have many reported significant relationships between litigation and treatment and RTW outcomes have cautioned about how their results should be interpreted (4, 7). One study (7) for example analysed the labour market experience and RTW patterns of all those who suffered a lost-time injury in the US state of Wisconsin during 1989-1990. Across the two years, the data revealed that on average, workers who were legally represented took twice as long to RTW as those who were not represented. The authors noted however that from their data, it could not be concluded unequivocally that litigation caused or promoted longer episodes of LTSA. This is because litigation tends to occur more often in cases where injuries are more serious, and by definition such cases are likely to require longer time off work. It is also difficult to interpret the influence of legal representation upon symptoms and work disability because it may follow rather than precede deterioration of a patient's condition (4).

Pending litigation has been reported to be a barrier to RTW, yet the literature remains mixed in demonstrating its effect on treatment and RTW outcomes. Moreover, while the promise of a financial windfall on settlement of a claim may discourage workers from RTW, there is some evidence to suggest that this course of action increases the risk of pain becoming chronic and of unemployment continuing after settlement (10,
21). One study found that settlement of claims did not result in the reduction of morbidity even after five years (10). The relationship between compensation, litigation and RTW outcomes is far from straightforward. The findings and conclusions of the published literature regarding the effect of litigation on LTSA remain contradictory and equivocal.

3.3.1.3 Occupational Health Services

Putative determinants of RTW include characteristics of the occupational health services, the branch of medicine that is concerned with the effects of work on health and the effects of health on work. Availability and type of occupational health interventions, including different treatment regimes, medical case management, doctor–stakeholder communications, timing of occupational health interventions, and the role of general practitioners and specialist doctors and the relationship between them, have all been the focus of RTW research. This section will review studies that have examined these factors. However two points are worth noting. Firstly, the site or stakeholder of the intervention (such as, hospital outpatients or workplace) varies across studies. For example, disability management can form part of an external occupational health approach; or, it can form part of an employer’s RTW programme for workers. To minimise repetition across different sections of this review, the relevant research for each variable is considered under the predominant site. Secondly, various occupational health interventions are discussed, however it is beyond the scope of the present research to review all the different medical treatments for all the illness/injuries associated with LTSA. The emphasis is on musculoskeletal and chronic pain interventions because of their prominence in the RTW research literature.

Availability of Occupational Rehabilitation Interventions

The availability of occupational rehabilitation services is a key issue to managing work disability and reducing LTSA (BSRM, 2000). An Industry Commission Report on work disability in Australia (1994) indicated that occupational rehabilitation, including goal oriented case management, timely receipt of appropriate medical interventions, and ergonomic advice and adjustments has generally proven to be cost effective and efficient in accelerating RTW. Kenny (1994) for example, found in an Australian study of 3041 workers that those who had received rehabilitation services RTW an average 3.33 weeks sooner than those workers who did not, controlling for the nature of the
injury.

In another study, the RTW outcomes of patients on income replacement who had rehabilitation following back surgery and had previously failed to respond to less intensive treatment were investigated. Rehabilitation included quantitatively directed exercise and psychotherapeutic interventions. Results showed a RTW rate of greater than 85% for patients who had all previously failed to respond to less intensive treatment (Mayer, McMahon, Gatchel, Sparks, Wright and Pegues, 1998).

In the UK, access to occupational rehabilitation services has become an issue. Within the National Health Service (NHS), a cornerstone of which was formed to deliver rehabilitation interventions to enable people for work, secondary medical treatments have been reducing for many years and waiting periods to access primary interventions have become significantly longer. This trend has occurred despite the importance of occupational rehabilitation being repeatedly emphasised in Government reports over the years and a clear acknowledgement that a paucity of these rehabilitation services would reduce an individual’s capacity to return to work (Beveridge, 1942; Tomlinsen, 1943; Piercy, 1956; Tunbridge, 1972; Mair, 1972). Within the last five years, efforts to contain rising NHS costs have resulted in further rationing of services including the withdrawal of special facilities for vocational rehabilitation. Scarce rehabilitation resources has meant a shift in focus to one of early hospital discharge, which has resulted in patients receiving treatment and therapy only up to a point that enables them to be released home safely.

This state of affairs was summed up in a review study of the NHS that concluded “although the UK has a good record when it comes to saving lives, its record once accident victims are out of the acute phase of injury lag behind those of many other western countries. Someone left paraplegic as a result of injury, for example, had a 50 per cent chance of returning to work in Scandinavia, a 30 per cent chance in the US and a 15 per cent chance in the UK” (International Underwriters Association of London, 1999).

NHS figures show the degree of the problem. In July 2006 there were one and a half million patients in England waiting for NHS treatment (Department of Health, 2006). In one region, waiting times ranged from four to eight months to see a consultant orthopaedic surgeon, three to four months for an MRI or CT scan (magnetic
reasonance imaging or cat scan) and a further four months to see a physiotherapist. Across the UK, only twenty five percent of orthopaedic patients were seen in less than five months from initial request (Department of Health, 2006).

Lack of immediate diagnosis and long delays in receiving treatment can result in prolonged periods of sickness absence, which in turn can jeopardise any return to work (table 3.1c - 26; 57; 60). It can also mean the development of chronic symptoms, which is now a major health issue among those awaiting treatment (Waddell and Burton, 2001). This is particularly the case for musculoskeletal disorders which are the commonest reasons for being long term ill and needing Incapacity Benefit (Department of Health, 1999). Within the NHS, there is an overarching lack of emphasis on the need to RTW rather than relieve symptoms (Rosen, 1994). Indeed, it has been suggested that many people on such waiting lists do not need to be there if the RCGP clinical guidelines for chronic pain management for disorders such as musculoskeletal were followed (Waddell and Burton, 2001; Royal College of General Practitioners, 1999).

Two studies investigated the state of the NHS from the perspective of work disability. In the first, which was government sponsored and aimed at developing a framework for vocational rehabilitation; long NHS waiting lists for treatment, delays in referrals (e.g. to specialists) and slow communication between different stakeholders; lack of occupational rehabilitation expertise, employee support, and health and safety expertise and; inadequate services for job retention compared with those for people who are unemployed were all identified by health and allied professionals as significant barriers to RTW (DWP, 2004). In the second study, which sampled people with incapacities in the UK, the majority perceived NHS resources to be remote, inadequate, and fragmented. Many commented on their frustrations and difficulties, and indeed job loss that related to waits throughout the NHS (Marks, McLellan, Langton-Hewer, and Ward, 2000).

In a detailed review of the occupational rehabilitation services available in the UK for people who become work disabled, the British Society of Rehabilitation Medicine concluded that the services were “woefully inadequate in the scope, content and standards which might reasonably be considered appropriate for the 21st century” (BSRM, 2000, p.87). Likewise, the Trade Union Congress (TUC, 2000) described the NHS as “starved of resources to deal effectively with any but the most serious of
rehabilitation needs, and isolated from occupational health both at the point of injury and at the point of return to work, existing provision is patchy (geographical and in terms of quality) and often ineffective*. It described the record of occupational rehabilitation in the UK as ‘lamentable’ (TUC, 2000, p.5).

A lack of occupational rehabilitation services has been found to increase the time injured workers remain off work (Kenny, 1995c). In the UK, the NHS as it is currently focused has major deficiencies in its occupational health services provision. Excessive waiting times for assessment and primary diagnostic interventions, and wait times for therapy have all been identified as contributing to prolonged sickness absence. The BSRM (2000) concluded that waiting times for NHS services were unacceptable; services were inflexible; and there was a lack of understanding about the impact of disease and disability on work. This remains a persistent problem and a barrier to successful RTW outcomes.

*Type of Occupational Rehabilitation Intervention
A number of interventions have been evaluated in relation to their effect on functional capacity, pain and RTW outcomes of injured/ill workers. Table 3.1c summarises a number of these studies. Considering the different types of occupational rehabilitation interventions, several recent randomized controlled trials suggest that exercise and education programmes are ineffective in changing longer term outcomes such as the duration of LTSA, pain and functional status.

Back education is an intervention that comprises providing traditional biomedical information and advice based on spinal anatomy, biomechanics and an injury. On its own it has been shown to be a relatively weak intervention (1-3). Recent evidence suggests that the lack of effect is probably due to the type of information that has been presented. Studies that have employed an approach to back education that emphasises cognitive-behavioural or neurophysiology aspects designed to overcome fear avoidance beliefs and promote self responsibility and self care have been shown to affect positive shifts in beliefs and reduce disability (4-7). One study examined the efficacy of an educational psychosocial pamphlet on absenteeism (6). The pamphlet was designed to shift beliefs by giving simple messages: "Back pain is not usually a serious problem. Continued back pain is not inevitable. Most people can take care of it themselves." (p. 2739).
Table 3.1c Societal Domain Factors of RTW Outcomes

<table>
<thead>
<tr>
<th>Variable/Study</th>
<th>N</th>
<th>Study Type</th>
<th>Sample</th>
<th>Effect on Work Disability</th>
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<tr>
<td><strong>Type of Rehabilitation Intervention</strong></td>
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<tr>
<td>Back Education - Biomechanical</td>
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<tr>
<td>2. Cherkin et al, 1996 *</td>
<td>293</td>
<td>RCT</td>
<td>US. Back pain</td>
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<tr>
<td>3. Roland and Dixon, 1989 *</td>
<td>243</td>
<td>RCT</td>
<td>US. Back pain</td>
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</table>

| Back Education - Psychosocial |    |            |        | Reduced fear avoidance beliefs®, disability duration® |
| 5. Burton et al, 1999 ° | 162 | RCT        | UK. Back pain, Medical Practice |                           |

| Exercise |    |            |        | No effect on pain*, surgical need*, absenteeism° |
| 9. Malinvaara et al, 1995 ** | 186 | RCT        | Finland. Low back pain, occupational health centre |                           |
| 10. Faas et al, 1999 ° | 162 | RCT        | UK. Low back pain |                           |

| Back Education and Exercise |    |            |        | No effect on functional capacity*, disability duration® |
| 11. Di Fabio, 1995 ** | 2373 | MA         | US. Low back pain |                           |
| 13. Berwick et al, 1989 ° | 222 | RCT        | US. Low back pain |                           |

| Back Education and Exercise |    |            |        | Improved functional capacity |

| Multidisciplinary |    |            |        | Improved functional capacity*, reduced disability duration® |
| 17. Cutter et al, 1994 ° | 37 st | MA         | US. Chronic pain |                           |
| 18. Hazard et al, 1989 ** | 90 | PS         | US. Low back pain |                           |
| 22. Feuerstein et al, 1993 ° ° | 34 | RCT        | US. Upper extremity disorders |                           |
| 25. Feuerstein et al, 1994 ° ° | 1147 | PS, LR     | US. Chronic back pain |                           |
| 27. Mayer et al, 1998 | 448 | PS         | US. Spinal disorders |                           |
| 30. Shrey and Bangs, 1991 ° | 112 | PS         | US. Social Security Disability recipients, mixed injuries |                           |
| 31. Feuerstein et al, 1999 ° | 1051 | PS LR      | US. Carpel tunnel syndrome |                           |
| 32. Karjalainen et al, 2001 ° ° | 2 | RCT LR     | Finland. Low back pain |                           |
| 33. Mitai et al, 2000 ° | 60 | RCT        | US. Coronary heart disease |                           |
| 34. Feuerstein et al, 2000 ° | 53 | RCT        | US. Upper extremity disorders |                           |

| Multidisciplinary |    |            |        | No effect on disability duration |
| 36. Mellin et al, 1993 | 194 | PS         | Finland. Low back pain, inpatients rehabilitation unit |                           |
| 37. Estlander et al, 1991 | 88 | PS         | Finland. Low back pain, rehabilitation unit |                           |

LR literature review, RCT Randomised Controlled Trials, PS Prospective Study, RS Retrospective Study, MA Meta Analysis
The pamphlet produced a large and positive shift in beliefs about the inevitability of back pain and an individual's ability to control their pain. These changes in beliefs led to a 60 per cent reduction in extended sickness due to back pain. It was most effective in workers with no previous history of low-back pain.

Exercise on its own has also been shown to be a relatively ineffective intervention (8-10). Frequently contrasted with bed rest as a competing treatment, recent evidence suggests that exercise or bed rest are no more effective than continuing with daily living activities in reducing pain, the need for surgery or sickness absence (8-10). Much of the traditional management of back pain, which emphasises interventions such as bed rest, are now being shown to promote chronicity (Jayson, 1996). Deyo and colleagues (1986) found that low back pain patients who were restricted to two days bed rest as opposed to those who were recommended seven days, took forty five per cent less time off work. Maintaining physical activity and minimising the period off work is now seen as critical for avoiding longer periods of disability (Waddell and Burton, 2001).

Joint back education and exercise interventions have produced more promising results. These interventions usually involve information-giving where patients are taught about anatomy and function of the back, mechanical strain and posture, and physical activity programmes (1). Such combination programmes can produce short term improvement in pain (12) although most of the evidence suggests this intervention yields no benefit beyond that found for control interventions (11-13). The exception to this is a study that combined exercise with a neurophysiology education component on patients moderately disabled with low back pain (14). A treatment effect of symptomatic and functional change was maintained at one year follow-up supporting the efficacy of this combined exercise-education intervention.

Multidisciplinary interventions have shown the most promise in achieving positive rehabilitation and RTW outcomes (16-35). The basic premise of this approach is to manage the medical, occupational and psychological factors contributing to work disability. Through integrating bio-medical, psychological and social elements, efforts are focused on stabilising the medical condition, enhancing functional capacity, increasing awareness of safe work behaviours, identifying and reducing ergonomic risk factors, and improving abilities to cope with pain in order to facilitate a safe RTW (25, 30). Some combination of medical management, physical conditioning, pain and
stress management, ergonomic consultation and education regarding safety and health are typically included.

A number of studies have demonstrated the efficacy of the multi modal rather than a single modal treatment approach in reducing functional incapacity and disability duration (16-35; Selander, Marnetoft, Bergroth and Ekholm, 2002). One study trialled a back pain intervention programme in a coal mine that included workforce education, acute on site back care by first aid officers, early injury reporting, and education to change workplace psychosocial attitudes associated with work disability (19). The rehabilitation process included guidelines for managers on how they should personally attend to workers RTW. The workers were made to feel an important part of the team. Because of the nature of the workplace, no light duties were typically available. Results showed that the mean duration of LTSA was 10 days and no worker was off work longer than 60 days during a 6 year period. Significant reductions in the number of claims were observed and the costs per claim compared to another similar mine were significantly lower. The authors concluded that the multimodal nature of the rehabilitation approach contributed to the findings.

In another study that integrated physiotherapy, relaxation therapy and education using a cognitive behavioural framework, findings at six and twelve months showed a significant and positive effect on the worker's ability to cope with chronic pain (28). Workers showed significantly greater improvements in perceived pain, significantly fewer days off work and used fewer healthcare resources compared to the randomised control group.

A further study aimed to develop and test a model of sub acute pain management in order to prevent prolonged work disability. Workers were randomised into four groups: usual care; clinical intervention; occupational intervention and; full intervention (combination of the last two) (24). The full intervention group RTW two and a half times faster than the usual care group. The largest specific effect by far – a reduction of fifty per cent in time lost from regular work in the first year follow up – was from the occupational intervention, a participatory ergonomic evaluation.

In contrast to successful multimodal interventions, an investigation into the efficacy of an inpatient multimodal treatment programme with chronic low back pain found no significant treatment effect on functional capacity or disability duration (36).
another study, a comprehensive four week multimodal treatment programme was trialled on patients with low back pain (37). At three week and twelve month follow up, the percentage of patients who had RTW remained unchanged. The authors suggested that multimodal interventions need to incorporate more work oriented treatment.

Overall, the majority of evidence suggests that combining several treatment modalities in order that various aspects of work disability can be dealt with simultaneously is the most promising approach to achieving reduced functional incapacity and work disability. Reviews in this area confirm that the multidisciplinary rehabilitation approach is associated with a RTW rate of approximately 71 per cent in contrast to 44 per cent in the usual care or comparison groups (Feuerstein et al, 1994). Just as there is growing consensus on the complexity of long term work disability, especially concerning the psychological facets of chronic pain, there is mounting evidence that multi-disciplinary treatment programmes that target these different factors and are directed at RTW are associated with significantly higher RTW rates than single modalities, including usual care.

**Medical Case Management** aims to facilitate the injured/ill workers medical recovery as well as assist them in an expeditious RTW. Case management is designed to coordinate information and service delivery from the various stakeholders involved in the injured worker's case. Case managers are typically treating health physicians or rehabilitation nurses. There is general consensus but limited scientific evidence that case management may reduce LTSA (Waddell and Burton, 2001).

A ten year study investigated the back care programme of a public utility company which comprised medical case management using quality based standardised diagnostic and treatment protocols. The programme was credited with having reduced absenteeism from back pain by some 6000 days; reducing the average time lost by 40 per cent and the number of surgeries performed by 67 per cent. The programme offered prompt access to physiotherapy, education on manual handling issues and self help and remedial exercises on site (39).

In another study, workers were randomly assigned to a group actively rehabilitated by an occupational physician or to a control group for usual care (38). Patients who received quality case management rehabilitation from occupational physicians, which
included encouragement of activity, continuity of care, adequate therapy, and attendance to psychosocial issues and organisational barriers, RTW significantly sooner than those who did not.

Table 3.1c cont. Societal Domain Factors of RTW Outcomes

<table>
<thead>
<tr>
<th>Variable/Study</th>
<th>N</th>
<th>Study Type</th>
<th>Sample Description</th>
<th>Effect on Work Disability</th>
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<tr>
<td><strong>Type of Rehabilitation Intervention</strong></td>
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</tr>
<tr>
<td>Medical Case management</td>
<td>Reduced disability duration</td>
<td>Medical</td>
<td>Study Type</td>
<td>Sample</td>
</tr>
<tr>
<td>38. Van der Weide et al, 1999</td>
<td>59</td>
<td>RCT</td>
<td>Neth. Workers attending occ. physicians, low back pain</td>
<td>Reduced disability duration</td>
</tr>
<tr>
<td>39. Wiesel et al, 1984, 1994</td>
<td>5300</td>
<td>PS</td>
<td>Neth. Workers attending work occ. health, low back pain</td>
<td>Reduced disability duration</td>
</tr>
<tr>
<td>40. Indahl et al, 1995</td>
<td>975</td>
<td>RCT</td>
<td>Norway. Low back pain</td>
<td>Reduced disability duration</td>
</tr>
<tr>
<td>41. Feuerstein et al, 2003</td>
<td>205</td>
<td>RCT</td>
<td>US. Upper extremity disorders</td>
<td>Reduced disability duration</td>
</tr>
<tr>
<td>Medical Case management</td>
<td>No effect</td>
<td>Medical</td>
<td>Study Type</td>
<td>Sample</td>
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A further study however showed no effect of case management as an intervention for reducing LTSA (24). In a study designed to test a pain management model where one of the four intervention packages was case management by a specialist, results indicated that the case management contributed little additional benefit to the ergonomic intervention.

Doctor-stakeholder communication has been found to impact upon the RTW outcomes of work disabled (Remenyi, 1992). One important communication dyad is that of doctor–doctor. Communication between occupational health physicians (OHP’s) and other doctors, particularly general practitioners (GP’s), has been shown to be important, especially with respect to therapeutic cooperation, such that different disciplines collaborate to ensure the best medical and occupational outcome for the patient (de Bono, 1997).

GP’s and OHP’s tend to give advice to work disabled on different aspects of their health problems. Moreover, most GP’s do not have specialist training in occupational medicine so frequently lack the necessary knowledge to manage the occupational aspects of work disability (Merrill, Pransky, Hathaway, and Scott, 1990; Yassi, Hassard, Kopoelow, 1990; 47). A common reason for extended time off work is that treating physicians have too little information about the demands of the job to make an appropriate decision as to when and how the worker could RTW (Merrill et al, 1990). For these reasons several studies have recommended more cooperation and
collaboration between GP’s and OHP’s (42; 43; Waddell and Burton, 2001).

Table 3.1c cont. Societal Domain Factors of RTW Outcomes

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<th>Variable/Study</th>
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<th>Study Type</th>
<th>Sample</th>
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<td><strong>Type of Rehabilitation Intervention</strong></td>
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<tr>
<td>Doctor (GP) – Doctor (Occ Health Physicians) Communication</td>
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<tr>
<td>42. Buijs et al, 1999</td>
<td>465</td>
<td>PS</td>
<td>Netherlands. GP's and OHP's</td>
<td>Barrier to RTW</td>
</tr>
<tr>
<td>43. Parker, 1996</td>
<td>483</td>
<td>PS</td>
<td>UK. GP's and OHP's</td>
<td>Higher RTW rates</td>
</tr>
<tr>
<td>44. Russell et al, 2005</td>
<td>10</td>
<td>PS</td>
<td>Canada. GP's</td>
<td></td>
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<tr>
<td>45. Anema et al, 2002</td>
<td>300</td>
<td>PS</td>
<td>Netherlands. OHP's</td>
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<td>Doctor (GP) – Doctor (Occ Health Physicians) Communication</td>
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<td>46. Mortelmans et al, 2006</td>
<td>91</td>
<td>RCT</td>
<td>Belgium. Mixed, social insurance recipients</td>
<td>Barrier to RTW</td>
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<td><strong>Doctor-Employer Communication</strong></td>
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<tr>
<td>47. Pransky et al, 2002</td>
<td>181</td>
<td>PS</td>
<td>US. GP's</td>
<td>No effect</td>
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<tr>
<td>44. Russell et al, 2005</td>
<td>10</td>
<td>PS</td>
<td>Canada. GP's</td>
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<tr>
<td><strong>Doctor-Patient Communication about job</strong></td>
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<tr>
<td>48. Dasinger et al, 2001</td>
<td>325</td>
<td>RS</td>
<td>US. Low back injury</td>
<td>Higher RTW rates</td>
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<tr>
<td><strong>Doctor Recommendation to Patient to RTW</strong></td>
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<tr>
<td>48. Dasinger et al, 2001</td>
<td>325</td>
<td>RS</td>
<td>US. Low back injury</td>
<td>Higher RTW rates</td>
</tr>
<tr>
<td>49. Dennis et al, 1988</td>
<td>201</td>
<td>RCT</td>
<td>US. Myocardial Infarction</td>
<td>No effect</td>
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<tr>
<td>50. Hall et al, 1994</td>
<td>1438</td>
<td>PS</td>
<td>US. Back pain</td>
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</table>

Recent surveys in both the UK and the Netherlands indicate however that cooperation between GP’s and OHP’s in the management of work disability is poor and characterised by a history of non action (Buijs, 1984; 42; 43). At its worst, it has been observed to be adversarial, with suspicions of conflicting interests: on the one hand between patient care and advocacy, and on the other employer interests and fitness certification (44; 45). This represents a significant barrier to rehabilitation and successful RTW (Beaumont, 2003).

Evidence of poor communication and cooperation between GP’s and OHP’s and the barrier this poses to successful RTW outcomes is growing internationally. In one study, the OHP’s of patients were questioned about their rehabilitation practices and experiences (45). According to OHP’s, the attitude of the GP’s regarding RTW was an active barrier to RTW in a quarter of cases and a third of GP’s were perceived to have a passive attitude with regard to RTW. In only 19 per cent of cases was there any communication between the GP’s and OHP’s and in the majority of these, the reason for the communication was to exchange information of a factual nature rather
than any broader cooperative goal, such as harmonisation of the case management, which occurred much less frequently.

Other studies have reported similar findings (42-44). In one study, the relationship between GP's and OHP's was investigated within the context of managing work disability and found to be significantly lacking in cooperation (42). From the OHP's perspective, poor cooperation was evidenced by the low level of communications initiated by GP's to them, information exchange that was almost exclusively clinical rather than broader rehabilitation, a perceived lack of interest in work resumption for their patients, and cautiousness in sharing patient information. From the GP's perspective, poor cooperation stemmed from a lack of clarity from OHP's about what they could and could not do for the patient, a lack of information about vocational accommodations, and a lack of clarity about why OHP's required certain information (42).

In another study (43), the attitudes of GP's towards OHP's and their services were investigated. With respect to work disability, there was evidence of wariness on the part of GP's in so far as OHP's were perceived to 'meddle' in primary care, which GP's considered to be their sole domain. Communication between the two disciplines was perceived to be irregular and inadequate. GP's were seen to lack understanding of the role, responsibilities and priorities of OHP's.

Taken together the evidence regarding doctor–doctor communication indicates that there is often a lack of regular communication between both parties which is in part attributable to misunderstandings by GP's about the role and responsibilities of OHP's (42; 43; 45). Frequently, only limited information is exchanged between the medical parties and the content tends to be factual and clinical rather than relating to the overall vocational management of the individual (42; 45). This last point is supported by the findings of an audit on the communication between one OHP and GP's carried out in the UK (de Bono, 1997). There was weariness on the part of GP's about sharing information which in part may stem from the perceived conflict of interest that can exist between these two disciplines.

Pransky (47) reported that more effective communication between primary care physicians (GP's) and OHP's could increase physicians' awareness of available alternative workplace accommodations which could potentially reduce the duration of
sickness absence. While there is very limited scientific evidence to demonstrate the
effect on work disability management of increasing information sharing between
stakeholders, one study (46) investigated this by intervening positively in the
information sharing between GP's and OHP's. Physicians in the treatment group
were required to use a protocol that dictated greater information exchange between
GP's and OHP's. Results showed that patients in the intervention group had
significantly higher RTW rates than those in the control group. The information
exchange model was seen as offering potential for improving communication between
medical stakeholders involved in work disability management and thus a potential
remedy for this barrier to RTW.

Doctor - Employer communication has also been found to be vitally important in the
management of work disability (47). Much of the illness and injury sustained by
working people is managed by GP's. This is especially the case in countries such as
the UK and US, where occupational specialists represent a tiny proportion of the
medical workforce and the vast majority of employees are treated by GP's and
primary care physicians (Merrill et al, 1990; McDonald, 2002). As well as clinical
management, GP's have a key role in assessing and advising patients about the work
implications of illness, recommending appropriate time to be away from work,
certifying work fitness, and assisting patients in returning to work and maintaining
employment.

In order to better understand the processes that GP's use when dealing with work
disability issues and the challenges that they face, Pransky (47) surveyed GP's about
their experiences with work disability patients. Results indicated that when faced with
finding out about job demands, the availability of alternative duties, or details of any
occupational support, three quarters of GP's relied exclusively on information from the
patient and only fifteen per cent said they would have any contact with the employer.
Yet patients are often unaware of available accommodations or alternative duties
(McDonald, 2002). To communicate work restrictions to the employer, two thirds
responded that they simply write 'light duties' on the work certificate. This
communication issue was speculated to be due to a lack of OHP training or more
likely a strong identification as patient advocates. Pransky (47) suggested that the
doctors' reluctance to contact employers was likely contributing to sub optimal RTW
outcomes and concluded that better communication between these two stakeholders
was essential for optimising disability outcomes.
A similar picture of reluctance on the part of doctors to communicate directly with employers has been reported elsewhere (44; Guzman, Yassi, Cooper and Khokhar, 2002; Merrill et al, 1990). For example, Russell (44) explored the doctor-employer communication histories of GP’s to gain insights into their experiences of managing patients with work disabilities. The prevailing sentiment amongst GP’s with respect to communicating directly with employers was one of wariness, and for most there was no communication with a patient’s workplace other than through the standard certification forms. Reasons GP’s gave for this lack of initiating any communication included the patient not asking for it, protecting their clinical independence, and not seeing it as their job.

Taken together the limited research in this area suggests that physician’ practices regarding communication with employers may contribute to the problem of ongoing work disability. At the heart of this could lay apparent conflicts with their advocacy role, confidentiality and the doctor patient relationship. In addition, a lack of knowledge about occupational health practices may be contributing to this apparent barrier to RTW.

**Doctor – Patient** communication has been found to another important intervention in the management of work disability. When considering work disability, primary care physicians face challenges and frustrations with issues of assessing residual function, role conflict and differences in patient versus physician values. Too often, it has been suggested, doctors give the wrong messages, both explicit and implied, to their patients, recommending some form of occupational restraint, often under persuasion, for poorly justified medical reasons (Hiscock and Ritchie, 2001). One recent survey showed that 40 per cent of economically inactive work disabled people who had left work had been advised to do so by a health professional (Meager, Bates, Dench, Honey and Williams, 1998). Loumidis and colleagues (2001) suggested that having advice from a doctor not to work can be a powerful disincentive to try to RTW (Loumidis, Stafford, Youngs, Green, Arthur, Legard, Lessof, Lewis, Walker, Corden, Thornton, and Sainsbury, 2001).

Through their communications with patients, doctors can foster realistic or unrealistic expectations in an employee regarding the course, nature, and speed of recovery and their ability to RTW (Franche and Krause, 2002). One line of inquiry has been to assess the effect that doctor proactive communication with patients about the
workplace has on duration of LTSA (48). Although doctor proactive communication was found to be associated with a greater likelihood of RTW in short absences, this effect disappeared for longer term absences.

Another line of inquiry has been to assess the effect that direct doctor advice to RTW has on RTW rates. It has been reported that many GP’s feel they have little influence on their patients’ perceptions of themselves as work disabled and their readiness to RTW (Hiscock and Ritchie, 2001; 47). Other evidence however suggests that doctor recommendations do have a significant influence over RTW outcomes (Walter, 1988; 48-50). In one study doctors recommended to patients with low back injuries their readiness to RTW (48). The positive recommendation was associated with a 42 per cent increase in RTW rates among long term work disabled after adjusting for possible confounders. In another study, in patients who suffered an uncomplicated myocardial infarction, receiving a specific recommendation by a doctor to RTW resulted in earlier RTW, lower perception of disability, increased productivity at 6 month post cardiac event, as opposed to a group who did not receive this intervention (49). Overall, the evidence from this research suggests that direct recommendations from a doctor to RTW can have an impact on RTW rates, leading to shorter periods of work loss and fewer recurrences, although the scientific evidence is limited.

Timing of Occupational Rehabilitation Interventions
The timing of occupational rehabilitation interventions has received growing interest in the RTW research literature, in particular whether early intervention is more effective than intervention provided at a later stage. A study by Gross (1991) revealed that the timeliness of interventions is an important consideration in the occupational rehabilitation of injured/ill workers. When workers were referred for rehabilitation 0-3 months post injury 47% returned to work. When they were referred within 4-6 months 33% returned to work; within 7-9 months 28% returned to work; and within 10-12 months 25% returned to work. Finally, when workers were referred for rehabilitation after one year post-injury, only 18% successfully returned to work.

Other studies similarly indicate that receiving early occupational rehabilitation interventions, i.e. medical, psychological, and occupational activities aimed at re-establishing working capacity and prerequisites for RTW is more likely to lead to an earlier RTW compared to late interventions (19; 26; 51-57). In one study (26), early active intervention including a medical assessment, a relatively simple physiotherapy
intervention, and an educational component, resulted in 57 per cent of individuals RTW within 10 days compared with 36 per cent of the control group. The risk of developing symptoms of chronic pain disability was 8 times lower for individuals who received early intervention, with only 2 per cent remaining on LTSA at a 7 month follow-up compared with 15 per cent in the control group.

<table>
<thead>
<tr>
<th>Variable/Study</th>
<th>N</th>
<th>Study Type</th>
<th>Sample</th>
<th>Effect on Work Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Rehabilitation Intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timing of Intervention - early</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51. Zigenfus et al, 2000 **</td>
<td>3867</td>
<td>RCT</td>
<td>Low back musculoskeletal disorders</td>
<td>Improved functional capacity*, reduced work disability duration*</td>
</tr>
<tr>
<td>52. Infante-Rivard &amp; Lortie, 1996 *</td>
<td>305</td>
<td>PS</td>
<td>Back pain</td>
<td></td>
</tr>
<tr>
<td>53. Marnetoft &amp; Selander, 2002 * 2 only</td>
<td>612</td>
<td>RS</td>
<td>Sweden. Long term sick, social insurance offices, mixed</td>
<td></td>
</tr>
<tr>
<td>54. Gardner, 1991 *</td>
<td>1173</td>
<td>RS</td>
<td>US. Florida workers compensation rehabilitation cases</td>
<td></td>
</tr>
<tr>
<td>55. Blackwell et al, 2003 *</td>
<td>502</td>
<td>RS</td>
<td>US. Montana workers compensation rehabilitation cases</td>
<td></td>
</tr>
<tr>
<td>57. McIntosh et al, 2000*</td>
<td>1752</td>
<td>PS</td>
<td>Canada. Low back pain, Ontario compensation cases</td>
<td></td>
</tr>
<tr>
<td>Early Intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58. Hazard et al, 1997</td>
<td>298</td>
<td>RCT</td>
<td>US. Low back injury</td>
<td>No effect on work disability duration</td>
</tr>
<tr>
<td>Early Intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59. Sinclair et al, 1997</td>
<td>1699</td>
<td>PS</td>
<td>Canada. Soft tissue musculoskeletal</td>
<td>Increased work disability duration</td>
</tr>
<tr>
<td>Delayed Intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45. Anema et al, 2002</td>
<td>300</td>
<td>PS</td>
<td>Netherlands. Low back pain</td>
<td>Prolonged work disability duration</td>
</tr>
<tr>
<td>60. Wright, 1997</td>
<td>190</td>
<td>RS</td>
<td>UK. Mixed, predominately musculoskeletal</td>
<td></td>
</tr>
</tbody>
</table>

In another study (55), the relationship between time from injury to referral for occupational rehabilitation intervention was examined with respect to RTW outcomes. Injured workers who were referred within six months of the injury were significantly more likely to return to work. Delay in the time from injury to receiving interventions was concluded to be a substantial barrier to RTW. Similarly, in another study that was designed to evaluate the effectiveness of early intervention on workers with low back pain, results indicated that patients in the early intervention group had significantly less time away from work compared to those in the delayed intervention groups (51).

Other investigations have shown similar results. In one study (56), hindrances to successful RTW were explored among long term sick-listed workers. Results showed that a delay before the start of occupational rehabilitation interventions was a significant factor in the RTW outcome. For every month without active interventions,
the chance of success decreased by 4 per cent. Comparable findings were reported in another Swedish study (53) but only for women, and more so for younger than older women. The authors suggested that these findings may reflect the changing profile of LTSA. Traditionally, men have always been over represented among the long term sick. Today in Sweden more women than men are on LTSA. Moreover, previously the typical person on LTSA has been aged 60 or more, yet today ill health is becoming increasingly common among younger people. Also, in terms of diagnosis, there is a strong shift from musculoskeletal problems to mental ill health.

Delays in receiving medical rehabilitation interventions have been singled out by some as being particularly problematic in achieving successful RTW (45; 57; 60; Gard and Soderberg, 2004). In one study, social insurance officers, who are responsible for co-ordinating the rehabilitation efforts of stakeholders in Sweden, aimed to describe their experiences of the RTW rehabilitation process in order that potential enhancements could be suggested to improve it and RTW outcomes. Of the identified areas, overly long waiting times for appointments to see medical personnel and to have medical investigations undertaken and delays in injured workers being contacted by appropriate stakeholders seen as potential barriers to RTW. Early contact with injured workers was seen as being critical so that early identification of appropriate interventions could be planned for (Gard and Soderberg, 2004).

An equivalent finding was reported in another study in which delays in the provision of necessary medical interventions were found to negatively influence treatment outcomes for injured workers and significantly predict increased time on LTSA (57). Two further studies (45; 60) concluded that the waiting time before medical rehabilitation interventions, particularly delays in receiving outpatient appointments, physiotherapy, diagnostic tests, and admission to hospital had prolonged the period of work absence.

Burton and colleagues (2003) reviewed the literature pertaining to the risks associated with long term work disability in people suffering relatively common ailments (musculoskeletal, mental health problems and cardio-respiratory). They concluded that for any intervention to be useful, it was of paramount importance that it be received early, prior to the onset of any chronic stage symptoms which they defined as 3 to 6 months (Burton, Waddell, Bartys, and Main, 2003). Others have similarly confirmed the importance of early intervention, prior to the chronic disability phase,
between three to four months post illness/injury onset (Gatchel, Mayer and Edcington, 2006; Gatchel, Polatin and Kinney, 1995).

Others have questioned the efficacy of early rehabilitation interventions (Frank, Sinclair, Hogg-Johnson, Shannon; Bombardier, Beaton and Cole, 1998). In one study, back injured patients were grouped according to their risk scores for suffering significant work disability at the time of injury. Early identified high risk scorers were assigned to either an intervention or a control group (58). Early intervention had no significant impact on RTW or self assessed pain.

In another study, the effectiveness of early intervention on work disability due to soft tissue musculoskeletal problems was investigated (59). Functional status, health related quality of life, and pain measures all improved significantly over time for both the experimental group and the control group, who received usual care. There were no significant differences in rate of improvement. In fact, workers who attended treatment clinics, i.e. the experimental group, were off work one week longer on average than patients receiving usual care. Health care costs were significantly higher for the experimental group.

Given the widely contrasting results regarding the effectiveness of early intervention and the notorious unresponsiveness to treatment of cases of more than three months (Teasell, 1996) some investigators have suggested that interventions initiated both too early and too late may be equally adverse (56; Frank et al, 1998). The apparent paradox between receiving early intervention such as medical treatments, and showing no significant benefits with respect to RTW outcomes or duration of LTSA relative to receiving usual or delayed interventions has been attributed by some to iatrogenesis (Frank et al, 1998; Bruckman and Harris, 1998; 45). Iatrogenesis refers to something that is caused by the treatment intervention itself. In the case of back problems, the most prevalent diagnostic category in work disability and the most widely researched in this area, most adults (60 to 80 per cent) experience a back problem at some time and the vast majority of people are back at work within two weeks and most would do well to continue their ordinary daily living activities and receive no treatment (Waddell and Burton, 2001; Frank, Brooker, DeMaio, Kerr, Maetzel, Shannon, Sullivan, Norman, and Wells, 1996; Waddell, Feder and Lewis, 1997).
According to the iatrogenesis principle, some of these patients are at risk for delayed functional recovery and increased sick role behaviour and as a result, extended work disability, as a consequence of unnecessary and excessive treatment interventions that are inappropriate for the likely prognosis and thus potentially iatrogenic (Frank et al, 1998; Bruckman and Harris, 1998). Critics of early intervention have suggested that this 'sheep dip' approach, whereby everybody is prescribed the same treatment interventions, can interfere with the diagnosis, in this case low back pain, running its natural course. Patients with otherwise good prognoses are seen too early for too long such that no additional benefits over usual care result and protracted disability can ensue (Waddell and Burton, 2001; Frank et al, 1998).

Current conceptions of chronicity suggest that timely and appropriate care at the acute stage of the problem should prevent the development of chronic problems (Waddell and Burton, 2001). On the other hand, rehabilitation interventions that are introduced too early have been shown at times to be counterproductive for achieving successful RTW. On balance, the evidence suggests that early intervention promotes earlier RTW, however a qualification to this generality is necessary. The definition of 'early' varies from study to study, with the research literature offering little consensus about what constitutes early. Gardner (1991) recommended that rehabilitation interventions commence no later than 6 months post injury and that an initial rehabilitation consultation should be held after 30 days of lost work time for back injuries, and after 60 days for other injuries; Day (1992) took this idea even further and stated that rehabilitation interventions should be initiated as soon as a medical diagnosis is established; Giles and Sgro (1989) concluded that return to work rates were higher if the referral occurred within 12 weeks and rehabilitation started within six months; Davidson (1994) found that rehabilitation interventions commenced within 80 days of injury onset were related to significantly higher RTW rates; Infante-Rivard and Lortie (52) found that a waiting time for rehabilitation interventions of not more than 30 days post injury was associated with higher RTW rates; Blackwell (55) reported that patients referred for rehabilitation interventions within six months post injury were significantly more likely to RTW; and Frank et al (1998) concluded that rehabilitation interventions should be commenced within the 4 to 12 week period post injury.

Optimal timing for interventions is likely to vary according to the type of rehabilitation intervention and the prognosis (Frank et al, 1998). However, there is broad agreement but limited scientific evidence that the introduction of rehabilitation
interventions should not be postponed until such time as the worker is physically able to resume work. If it is delayed to this point, the psychosocial circumstances may have deteriorated to a state that could impede or even preclude a RTW (Gardner, 1991; Linton, Althoff, Melin, Lundin, Bodin, Magi, Lidstrom, and Lihagen, 1994). What appears to be most important early on is to provide rehabilitation interventions that are closely related to the workplace or at least tied explicitly to the specific goal of returning to work (Margoshes, 1998; 56; Waddell and Burton, 2001; Frank et al, 1998; Gardner, 1991). Workplace organisational interventions that reflect a corporate culture that embodies high commitment to improving health and safety, optimum case management with clear goals, and encouragement and support for early RTW, even in alternative or modified duties, are most likely to ensure that sustainable full time employment will ensue in the most timely manner (Frank et al, 1996; Battie, 1992; Hunt and Habeck, 1993; Tate, 1987).

The general consensus that early intervention (within 3 months of onset) is more effective than later (more than 3 months post onset) is supported by a majority of studies reviewed here although this opinion is questioned in others. On balance it seems that occupational rehabilitation interventions are most effective when delivered at the earliest possible time consistent with current occupational health judgement, (National Institute of Disability Management and Research, 2000). Delays in starting rehabilitation interventions have been found to reduce their effectiveness and delay RTW. In a study of three on-site rehabilitation programmes (a paper mill, a steel mill and a container manufacturing plant) Strautins and Hall (1989) found that 90 per cent of workers referred within a week of injury RTW while only 66 per cent of those referred after a month did so. Overall the authors concluded that the shorter the time between injury and referral, the greater the likelihood of the injured worker RTW and the less time that was taken to return.

The Role of General Practitioners and Treating Doctors
GP's/treating doctors participation in the rehabilitation process, in cooperation with other health professionals and RTW stakeholders including the worker and their employer, is critical for successful RTW (47). As well as initial clinical management, GP's/treating doctors have a central role in assessing and advising patients about the work implications of illness, recommending appropriate time to be away from work, certifying work fitness, and assisting patients in returning to work and maintaining employment (Waddell and Burton, 2001; Edlund and Dahlgren, 2002). As custodians
of the medical certification process they begin, maintain and terminate periods of sickness absence from work. Yet their effectiveness in managing work disability has been questioned by other stakeholders (44; Kenny, 1996a; Anema, van der Giezen, Buljs, and van Mechelen, 2002).

Several ineffective medical practises that may delay functional recovery and a RTW have been described including unproductive treatment interventions (9; 10); prolonged waiting periods for medical and other rehabilitation interventions (57); fragmented and poorly coordinated medical care of work disabled (Christian, 1998; Rudolph, 1998); a lack of knowledge regarding current occupational medicine practices (Christian, 1998; 47; Merrill et al, 1990); out-moded knowledge of contemporary work environments (47; 44); and an unwillingness to implement current established best practice in occupational medicine (Schonstein and Kenny, 2000; Guzman et al, 2002). In one study that investigated treating doctors’ perspectives on soft tissue injuries and RTW, two thirds of respondents stated that they did not advise their patients to ‘try to continue normal activities’ despite knowledge of the overwhelming supporting evidence for this treatment protocol (Guzman et al, 2002).

GP’s/treating doctors have also been criticised for: issuing lengthy medical certificates that can cover periods of up to three months absence at a time (Kenny, 1996a); issuing medical certificates that lack any diagnostic content that could be useful in the RTW process (Kenny, 1996a; Schonstein and Kenny, 2000); a lack of patient plans with clear treatment goals for rehabilitation (Hunt and Habeck, 1993); providing vague and obscure advice on restrictive factors for RTW, making it difficult for employers to integrate restrictions into RTW plans (47; Kenny, ‘1996a; Schonstein and Kenny, 2000); over reliance on patients’ subjective reports of their disability and a failure to positively reinforce the need to RTW as soon as possible even if it is in a limited capacity (47; Kenny, 1995a,d; 44); and over treating and erring on the side of caution to avoid loss of custom (Shrey, 1995).

In contrast, GP’s/treating doctor’s have described their role of managing work disabled patients as challenging and frustrating as they deal with issues of confidentiality, disability certification, advocacy, and role conflicts and differences in patient versus physician values as their endeavour to balance the various stakeholders’ needs (44; 47). A ubiquitous issue facing doctors is how to manage the wait period for interventions. It is widely acknowledged that the longer a worker
remains off work, the less successful any form of rehabilitation intervention becomes and the greater the probability of protracted LTSA (Burton et al, 2003). Despite this, considerable sickness absence continues while waiting for referrals or investigations to take place, a period during which there may be no actual bar to work, merely the perception that such referrals or investigations must first be completed (Waddell and Burton, 2001). Many workers, assisted by some doctors adopt the attitude that treatments such as physiotherapy or counselling should be successfully completed before work resumption can be contemplated. In reality a RTW with such support in place would likely result in a more rapid and full recovery (Hall, McIntosh, Melles, Holowawachuk and Wai, 1994).

Other common dilemmas that GP's/treating doctor's face stem from the conflicting demands of patient care and loyalty versus disability management and ongoing disability certification (Zinn and Furutani, 1996; Mayhew and Nordlund, 1988). Kenny (1996a) found that an ever-present concern of treating doctors was the "economic and psychological pressure" they felt to comply with the requests or demands of their work disabled patients. "These injured workers are also patients you would see for every other medical problem.... The pressure is that if you have a disagreement with the worker/patient you will lose them as a patient. There is economic pressure to come to a favourable decision for that patient." (Kenny, 1996a, p. 10). Similar findings have been reported by others (44; 47).

GP's/treating doctors have also shown reluctance to address rehabilitation/RTW issues because of concerns about confidentiality (42; 44; Merrill et al, 1990), lack of time (Merrill et al, 1990; Edlund and Dahlgren, 2002), not seeing it as part of their role (44; Guzman et al, 2002), and a lack of trust of other stakeholders including OHP's and employers (42 - 43; Russell and Roach, 2002).

Another major challenge facing GP's/treating doctors is professional self regulation (Kenny, 1995d). On the one hand they are responsible for fulfilling the role of treating doctor to their work disabled patients, on the other they are in charge of determining how much treatment should be provided before a RTW is possible. Balancing the medical needs and health interests of the patient during their recovery with the financial gains available from this has been described as a conflict of interest, making treating doctors the unofficial, poorly equipped, gatekeepers of the RTW process (Kenny, 1995d; Liberty International Canada, 1995). This has been highlighted as a
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concern in the RTW research literature and there is growing evidence to suggest that there are elements of poor self regulation among some medical professionals and that this may be contributing to slower rates of recovery (PEPWH, 2000).

In the US, Shrey (1995) observed that “medical costs account for more than half the total cost of workers’ compensation. The medical profession is highly motivated by profits, and this self interest often conflicts with RTW goals associated with disability management. Workers with disabilities are often subjected to prolonged treatment, unnecessary medical services, and questionable surgical interventions” (p. 44).

In another extensive review of medical practices and costs associated with work disability, over treatment and over charging for income supported work disabilities were found to be commonplace (Liberty International Canada, 1995). The average cost for back disorders was almost six times greater and the average treatment duration ten times longer for those on income replacement compared to those covered privately; for a sprain or strain, the average cost was twice as great and the average treatment duration seven times longer compared to those covered privately; for soft tissue and musculoskeletal injuries that were work related, the duration of the recovery period was significantly longer than in non-work related cases; and while current evidence based best practice for soft tissue injuries was prescribed to individuals who led active lifestyles and with significant success, the same treatment protocol was not applied extensively to similar soft tissue injuries in injured workers, whereas bed rest frequently was (Liberty International Canada, 1995).

In summary, GP’s/treating doctors have a significant role to play in the rehabilitation of injured/ill workers to ensure they achieve maximum functional recovery and RTW as quickly as possible. Yet their effectiveness in managing work disability has been called into question by other stakeholders, and growing evidence suggests that some of their interventions and advices can act as barriers to RTW (44; Kenny, 1996a; Anema et al, 2002). This has been shown to be most evident when GP’s/treating doctors: fail to manage cases actively; refuse to work co-operatively with specialist doctors, employers and other stakeholders; withhold functional abilities information when requested by the employer and consented to by the worker; fail to accurately represent the clinical situation to the employer; and fail to follow current established best practice in occupational medicine.
3.3.1.4 Labour Market Conditions

The early literature on the relationship between the economic cycle and industrial accidents dates back to the 1930's. Kossoris (1938) examined the relationship between employment and workplace injuries in 29 manufacturing sectors in the US between 1929 and 1935. Kossoris (1938) found a pro-cyclical relationship between injuries and employment levels. Since then a positive relationship between the level of economic activity and sickness absence has been well documented. Estimation results indicate that a negative relationship exists between employee injury rates and the claimant unemployment rate. Employee injury rates are therefore estimated to follow a pro-cyclical pattern (Davies and Elias, 2000).

This trend has continued over the years and a negative correlation between unemployment and sickness absence on the macro level remains the case (Arai and Skogman-Thoursie, 2005; Backman, 1998). It is argued that unemployment rates affect an individual's propensity to report sick. At the risk of being laid off from work, those with a high propensity of sickness absence are likely to be the ones first to lose their jobs, and thus their propensity to register sick will diminish in order to reduce this risk (Arai, Skogman-Thoursie, 2005; Backman, 1998).

While the relationship between unemployment and sickness absence has largely been shown to be negative, some evidence contradicts this. For example, Gardner (1991) found that the strength of local labour market demand did not significantly influence the ease of finding employment after LTSA in a large scale data base from Florida (Gardner, 1991). However, significant differences were found in the RTW rates across different industries.

One of the significant outcomes of economic cycling is the variable affect it can have on different industry sectors, which in turn can adversely affect injured workers' opportunities for RTW. Krute and Treital (1981) found that poor labour market conditions were directly associated with an increase in disability benefits applications. Many injured workers are employed in occupations in sectors, such a manual labouring in the building sector, which undergo substantial change as a result of economic conditions. In harsh times this results in fewer available jobs and additional requirements for skills training. Often industrially injured workers have relatively weak labour market qualifications due to their limited education. Furthermore, their work
experience is often in occupations with high unemployment rates, such as manufacturing. Thus, the loss of a job due to an injury can result in a higher probability of remaining on LTSA for the ill/injured worker (Tate, 1992). Slowdowns in business activity appear to be accompanied by increases LTSA rates (Knutsson and Goine, 1998).

3.3.2 Organisational Domain Factors

In this section, literature is reviewed on organisational domain factors and their relevance to LTSA and RTW outcomes.

3.3.2.1 Size of Employer

Size of employer has produced contradictory findings. A number of studies have reported that workers from larger employers took significantly shorter episodes of LTSA compared to those from smaller firms (Voaklander, Beaulne and Lessard, 1995; Cheadle, Franklin, Wolfhagen, Savarino, Liu, Salley and Weaver 1994; Habeck and Leahy, 1991). On the other hand, some studies have shown that workers from larger employers took significantly longer episodes of LTSA compared to those from smaller firms (Dasinger, Krause, Deegan, Brand, and Rudolph, 2000; Krause, Dasinger, Deegan, Rudolph, and Brand 2001b). Still others have found no effect (Galizzi and Boden, 1996; Hunt and Habeck, 1993).

3.3.2.2 Integrated Company Health Care Activities

Integrating company health care plans with rehabilitation initiatives have been shown to be both cost effective and successful in reducing the amount of time workers have off on LTSA (Hunt and Habeck, 1993). The scheme operates in the US where considerable health care is organised at the company level and company funded health care plans are a valuable employee entitlement. This situation arose largely because of the relatively poor state (both in terms of coverage and of cost) of health care arrangements in the US when compared to countries like Australia and Canada. A by-product of this has been the concentration of activity at the company level providing the opportunity for creative and effective integration of company health care plans with work disability rehabilitation.

A linked feature of this company based activity has been the greater potential for different relationships with service providers such as medical practitioners and
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rehabilitation providers. The development of such relationships has not only proven to be cost effective but have provided for a greater accountability by service providers for the nature and the quality of services provided. As well they have facilitated timely access to rehabilitation services compared to the delays which have become endemic in the traditional health care system. This highly focused approach of integrating health and rehabilitation arrangements has been credited as being a major contributor to reducing workers’ compensation costs at a large company in Canada by an estimated $20 million over a three year period (Liberty International Canada, 1995).

3.3.2.3 In house Disability Management Policies and Interventions

Employer based work disability management policies and interventions have been shown to play a significant role in reducing prolonged worker disability. (1990) observed that the normal workplace should be seen as the ‘therapeutic environment of choice’ both in terms of rehabilitation (e.g. job accommodation, worksite modification, and transitional work) and prevention activities (teaching work safe practices). Within this environment the principle of work disability management could be practiced. Shrey (1990) defined work disability management as: "An active process of minimising the impact of injury, disability, or disease on a worker’s capacity to perform his or her job successfully" (p.93).

According to Habeck and Leahy (1991) the central elements of disability management include:

- "Top management commitment and supportive policies
- Education and involvement of employees at all levels, including union participation from the outset
- Active use of safety and prevention to avoid disability occurrence
- Early intervention and ongoing monitoring for health risks and disability cases
- Systematic procedures for effective use of health care and rehabilitation services
- An organised RTW programme with supportive policies and modified duty options” (p212).

Management has been found to have a particularly relevant role to play in RTW outcomes (McLellan, Pransky and Shaw, 2001). Baril and colleagues (2003) found that there was an increased likelihood of successful RTW when senior management valued and supported RTW programmes (Baril, Clarke, Friesen, Stock, Cole and the Work-Ready Group, 2003). Likewise, Shoemaker, Robin, and Robin (1992)
researched the relationship between the success of disability management policy and organisational factors and found that corporate executive beliefs predicted the programme's success most strongly. The values of senior management appear to be highly influential in that they have a large part to play in 'setting the tone' of the corporate culture. Mindful of this, Kearns (1997) emphasised the need for senior management to be involved and kept informed of best practice in vocational rehabilitation and publicly set policy that endorses this ideology.

In a subsequent review of the literature, Tate (1992) also found evidence that employer-sponsored disability management programmes were effective in assisting injured workers return or remain on the job. Significant factors included the appropriate development and administration of disability management, a clear statement of disability-related policies, an interdisciplinary team approach, and the provision of job modifications.

Further evidence in support of the importance of disability management policy and practices is provided in a study by Rousmaniere (1989) who conducted a study of 24 hospitals in northeast US and found that the incidence and severity of reported injuries were similar in all hospitals. However, there was dramatic variability in the total lost working days and mean lost workdays across the 24 hospitals. The single most important cause of variation in disability impact and subsequent amount of LTSA was the organisation's internal system for managing injured/ill workers and the post-injury response.

Lewin and Schecter (1991) found that employers with a higher degree of employee participation and involvement, greater use of conflict resolution and grievance mechanisms, and disability management in the form of early and supportive assistance to employees with chronic illness and injuries were more likely to experience lower rates of disability. The authors concluded that positive human resource policies and practices make a difference in disability experience and health care cost and, inversely, that an employer's rate of disability can be a powerful indicator of the company's culture (Lewin and Schecter, 1991). Similar themes were found in the study by Shannon, Walters, Lewchuk, Richardson, Moran, Haines, and Verma, (1996), in which lower rates of lost work time were associated with demonstrated concern for employees by management, greater involvement of employees in decision making, plus internally focused efforts to resolve risks and work
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disruption.

Habeck, Hunt and Van Tol (1998) conducted a study to further investigate the impact of workplace policies and practices on the incidence and outcomes of work disability. Two hundred and twenty employers in Michigan participated. Findings demonstrated that better performance on disability outcome measures, which included length of sickness absence periods and total lost workdays, was statistically associated with higher degrees of achievement on specific company policy and practice dimensions. The dimensions that were found to have a substantial impact on lost workday cases and total lost workdays were safety diligence, safety training, and proactive, RTW programmes. The authors concluded that the findings provided further support that disability at work can be advantageously managed for employer and employee alike, when disability management is immersed into the everyday running of the company. Senior management were actively involved in the process.

Elsewhere, the commitment from management, including the allocation of funds to occupational health and safety projects has been shown to be a significant variable in RTW outcomes (Ferguson and Talbot, 1992; Habeck, 1993; Shrey, 1993). Employers that have corporate employee welfare policies in place which include disability management policies and practices that incorporate rehabilitation/RTW have been shown to be effective in accelerating a worker’s RTW (Tate, 1992).

Despite the weight of evidence indicating that employers gain substantially from having disability management policies in place, there is good evidence to indicate that internationally, this is far from common practice. In a study by Kenny (1996c), ninety three employers in N.S.W., Australia were surveyed to assess their workplace practices pertaining to occupational health and safety procedures and occupational rehabilitation. Employers in Australia are legally obliged to establish a workplace rehabilitation programme and appoint either a full or part time rehabilitation coordinator/case manager if they employ more than 20 people. Results showed that over half the employers (between 21-200 employees) did not have written occupational health and safety policies and less than a third had workplace based rehabilitation. A small majority of employers (58.9%) reported that there had been no change in the amount of time lost from work as a result of implementing occupational health and safety and rehabilitation policies in their workplaces while a quarter reported decreases in time lost.
These results should be tempered with the knowledge that the majority of employers in this study were small (fewer than 20 employees) and therefore were not legally required to employ a rehabilitation specialist. Of the employers who had a rehabilitation co-ordinator (32 per cent), only a fifth were full time. Eighty per cent of the part time coordinators spent less than twenty five per cent of their work time on rehabilitation issues, as they had other ‘full time’ jobs as foremen, personnel officers or secretaries. This suggests that there may be some inherent inadequacies in the rehabilitation programmes surveyed which may have effected the ability to reduce sickness absence (Kenny, 1996c).

In an exploratory study of work disability management practices among employers in the UK, Cunningham and James (2000) found that of the seventy seven employers who participated, a small majority had written RTW employment retention policies in place. With respect to making contact with workers who went on sickness absence, sixty five per cent of employers made contact with the worker within ten days. However, in just over one quarter of employers there was either no documented timeframe within which workers should be contacted or periods ranged from 11 to 30 days. Employers were asked to qualify the contents of their RTW policies. Less than a fifth used rehabilitation specialists to assist the work disabled RTW.

Having policies and programmes in place is a first step to assisting those on LTSA to RTW, however, there is evidence that at the individual level there can be a lack of adherence which can result in quite negative outcomes. Kenny (1995d) examined in depth the experiences of 12 long term injured workers in order to clarify some of the process variables which impact upon RTW outcomes from LTSA. Results indicated that the process of occupational and medical rehabilitation, as it occurred for these 12 workers, was characterised by a lack of adherence to policy and programme. Rehabilitation interventions were randomly offered and in some cases led to over treating while in others under treating, communication between stakeholders was poor which resulted in confusion and eventual breakdowns, all of which left significant human and financial wastage.

An analysis of the individual cases confirmed that although there were well documented policies and procedures in place for the management of work disability, the procedures were not followed systematically by some employers, being in the main ignored. None of the injured workers received written notification about their
rights and responsibilities; only two received offers of help to complete accident forms; only two were offered rehabilitation; only two were provided with appropriate information; and six were offered suitable alternative duties when required. While the results of this study need to be interpreted cautiously because of the small sample size and because only the perspectives of injured workers were reported, the results nonetheless demonstrate the fragility of a process when it is not followed. The whole RTW process was compromised for these workers from the outset. All of the workers experienced a lack of support and an alienation from the work place which was very difficult to overcome (Kenny, 1995d).

Gard and Soderberg, (2004) in their research of rehabilitation practices in Sweden concluded that having observed work rehabilitation processes, employers needed to be much more active in the rehabilitation arena. Employers’ competence, economic resources and motivation were perceived to be highly necessary for successful RTW. They also emphasised that employers needed to be much more active in difficult work disability cases (Gard and Soderberg, 2004).

Overall, the empirical studies offer support for the disability management hypothesis that workers who become ill or injured can be successfully managed to the benefit of the employee and employer when the disability management principles are adopted as an explicit and co-ordinated part of the organisation’s overall goals.

3.3.2.4 Management Practices and Workplace Attitudes

The Employer-Employee relationship is central and therefore critical to the RTW outcome. Indeed some studies have found the employer-employee relationship to be more important than the received medical care and rehabilitation services of the work disabled when RTW (Johnson and Baldwin, 1993). Management practices and workplace attitudes of employers and management towards the work disabled have been found to have a significant relationship with RTW outcomes (Robinson, Rondinelli, Scheer, and Weinstein, 1997; Ekberg, 1995). An employer’s commitment and support for the RTW process has been found to be particularly important because of the employer’s capacity to influence both physical and attitudinal conditions that are likely to promote RTW (Holmgren and Ivanoff, 2004; Krause et al, 2001b; Kenny, 1995d).
An Australian SRCC sponsored research project into the impact of workplace factors on RTW rates reported that co-operation and support from management, especially the supervisor, emerged as one of the significant determinants of a successful RTW. The findings also highlighted the importance of workplace relationships on the employee's progress once having returned to work, and the importance of providing suitable duties and developing a well coordinated return to work plan with the employee (SRCC, 2001).

Feuerstein and Thebarge, (1991) found that those who remained off work on prolonged sickness absence viewed their work environment as being lower in supervisor support compared to those who RTW. Similarly, Holmgren and Ivanoff, (2004) found in their study of obstacles to RTW among females on LTSA with a primary diagnosis of MIH (burnout, psychological distress or exhaustion), that perceived lack of understanding from the employer and lack of social support from both supervisors and workmates were key. What was found to be of great value was continuous contact with their supervisor and colleagues. Workers attributed their increased self esteem and faith in their own competence to having someone representing the employer listen and provide them with support. Moreover, the employers' encouragement and sympathy for the workplace alterations suggested by participants helped facilitate a RTW.

Baril and colleagues (2003) in their study about successful RTW strategies and barriers/facilitators to RTW reported that the active participation of the injured worker's supervisor was particularly important. Conversely, the variability among supervisors willing to co-operate with modified work measures, with many torn between their production responsibilities and the demands of the modified work programme, acted as a barrier. In this situation, supervisors experienced their role in the management of injured workers as a burden. Furthermore, some supervisors held the view that a worker should be 100 per cent able before RTW which posed a major obstacle to the RTW process.

In another study that investigated barriers to RTW among people with chronic work disability, supervisor support was found to be poor, with a third of subjects reporting that they had received inadequate support in their efforts to RTW (Linton and Bradley, 1992). Likewise, Katz and colleagues (2005) found that at six months, respondents who reported lower levels of supervisor support had prolonged work absence while
those who reported more supportive organisational policies and practices had lower rates of work absence. At twelve months, respondents who reported more supportive work environments again had lower rates of work absence (Katz, Amick III, Keller, Fossel, Ossman, Soucie and Losina, 2005).

Lack of support at work and the concomitant breakdown of communication between respondents and their employers has been consistently linked to lower RTW rates and protracted LTSA among those with chronic work disability (Shaw, Feuerstein, Miller and Wood, 2003; Kenny, 1995d). Kenny (1995a) explored the relationship between injured workers and their employers to clarify factors that each perceived made an impact on the process and outcomes of occupational injury. Inadequate dissemination of information and poor communication was identified as a major barrier to successful RTW. Eighty five per cent of workers interviewed reported some problems in the communication among different stakeholders. Employees were more susceptible to being omitted from the communications between other stakeholders such as the employer, which had the effect of some workers being left feeling that they were last to be informed of things. Overall, there were inadequate communication pathways with no systematic avenue of information provision. Similarly, in a study that sought to identify factors that predicted RTW among long term work disabled, employer-employee communication was found to be a key variable. The RTW rates were significantly higher among employers who provided more help and information to their long term injured and ill compared to those who did not (Kenny, 1998).

Janssen and colleagues (2003) also investigated workplace predictors of RTW by studying a sample of people on LTSA in the Netherlands who had been sick listed for six to eight weeks. The authors reported that high supervisor support was the most significant predictor of RTW. In another recent study from the Netherlands, better communication between supervisors and employees was again found to be associated with higher RTW rates, but only for those without MIH. No such association was established for those with MIH (Nieuwenhuijsen, Verbeek, de Boer, Blonk, van Dijk, 2006).

From the workers' perspective, their willingness to participate in the RTW process has been closely linked to the degree to which their opinions and experiences are sought and valued by the employer. A worker's inclusion in the decision-making process
around RTW has been shown to be vital, especially to making appropriate work place modifications (Habeck and Leahy, 1991; Shannon, Mayr and Haines, 1997; Baril et al, 2003; Holmgren and Ivanoff, 2004). Furthermore, when the modified work assignment is seen as poorly planned, or the work is deemed 'useless', the injured worker has been found to be more likely to resist the RTW proposal (Baril et al, 2003). There is also evidence to suggest that the element of mistrust may be associated with RTW outcome. Francom (1992) suggested that following illness/injury, communication with personnel can be alienating to the work disabled, resulting in the development of mistrust which can impair the recovery process and return to work motivation. Kenny (1995d) reported that the RTW process readily became adversarial in situations where consultation was inadequate and workers perceived the process to be uncaring, disbelieving and unsystematic. As a result, relations frequently soured between the work disabled and employer which adversely affected the RTW outcome. In addition, co-worker lack of trust and disbelief about the 'genuineness' of an injury has been identified as a barrier to RTW (Baril et al., 2003; Kenny, 1995a).

The work disabled need to feel reassured that the work environment is not a hostile one, characterised by blame or cynicism but is supportive and concerned. There is evidence that suggests the negative impact of this on RTW outcomes is significant. Roberts-Yates (2003) in her study of worker's perceptions of impediments experienced in the RTW process reported that workers felt the constant need to justify the genuineness of their injury to doubting employers, friends and colleagues. A significant number of workers reported that the nature of their relationships with the employer and co workers changed as a result of this and left many feeling isolated.

In a study that explored the impact of factors on RTW outcomes, sixty per cent of workers reported that they had experienced some degree of discrimination from one or more stakeholder. This took the form of being shunned by colleagues (fifteen per cent), being placed under surveillance and most significantly being treated poorly by their employer. Eighty five per cent of workers had not been directly contacted by their employers, fifty per cent were not offered acceptable transitional work if needed, twenty six per cent were taunted that their injury was not genuine, twenty five per cent were told that they would be terminated if they did not return to full duties and twenty five per cent were told they were exaggerating their injury (Kenny, 1995a). The validity of these worker perceptions, i.e., that employers tended to view them negatively, was confirmed in a follow-up series of interviews with their employers. Eighty per cent of
employers interviewed expressed frankly negative perceptions of workers who were injured.

A supportive style of supervision from supervisors and managers, including psychosocial support, has been shown to be particularly important to securing higher rates of RTW among work disabled (Krause et al, 2001b). Managing work disability requires more than access to resources and services. It requires a strong corporate commitment, a skilled and qualified management team, and proactive policies and procedures (Bruyere and Shrey, 1991). In a study by James, Cunningham and Dibben (2002) thirty organisations were interviewed about their strategies to facilitate workers RTW, particularly from LTSA. Many of these organisations had escalating problems with sickness absence. Among their findings the authors reported that about two thirds of those interviewed commented on the inadequate manner in which line managers carried out their absence management responsibilities. In a third of organisations, clear RTW guidelines did not exist, and in those where such guidelines did exist, they were often poorly adhered to by managers. The authors concluded that the problems with line managers fulfilling their absence management responsibilities were broadly in line with other studies (e.g. Storey, 1992). Hence, there was a reluctance to get too involved in the management of serious cases, a tendency to place the absence management task well down their list of priorities, and a lack of awareness of policies and procedures and other resources that could have assisted them in performing this function.

Social relations with the employer and management appear to be important factors in LTSA and RTW outcomes. Notions of trust and respect seem to be especially important. A positive attitude and supportive communication from supervisors have been shown to promote successful RTW while a workplace environment that is characterised by distrust and a lack of workplace support has been found to be detrimental to the RTW goal (Krause et al, 2001b; Strunin and Boden, 2000; Selander et al, 2002; Feuerstein and Thebarge, 1991; Linton and Bradley, 1992; Butler, Johnson and Baldwin, 1995; Niedhammer, Bugel, Goldberg, Leclerc and Gueguen, 1998; North, Syme, Feeney, Shipley and Marmot, 1996). Bigos and colleagues (1991) for example, showed how a simple phone call from the employer to a worker on sickness absence could significantly decrease the period of absence.

Management need to use best knowledge and skills not only in the early stages, but
throughout the process of rehabilitation/RTW to ensure the best possible outcome. The role of manager does not stop when a worker becomes ill/injured but rather is intensified (Cornally, 1986).

3.3.2.5 Returning to the Pre Injury Employer

Workers who have jobs to return to and/or are still considered employees are more likely to RTW than workers who do not (Voaklander et al, 1995; Marnetoft et al, 2001). A key variable to being able to remain in the labour force is a worker's ability to return to the pre injury/illness employer (Galizzi and Boden, 1996). Evidence suggests that once the attachment to the employer is severed, one's likelihood of finding paid employment decreases substantially and if the attachment to the labour force is broken, the individual is likely to settle into the social security system. Complications may then ensue which can act as powerful barriers to the individual's RTW (Gleason, Carpenter, Krute and Galvin, 1986).

A two year study in Wisconsin found that while most workers with more than one year of tenure returned to their pre injury employer, for those who did not, the duration off work lengthened by a factor of two or three (Galizzi and Boden, 1996). Changing employers was shown to have a dramatic effect on duration of LTSA for all but the shortest tenure workers (six months).

RTW is positively influenced by the opportunity to be re employed in the same job and the availability of a transitional work programme (light duties) (Burton and Wilkinson, 1988; Deacon and Congdon, 1984; Williams, 1991). Gardner (1991) found that the willingness and ability of the pre injury employer to rehire an injured worker was strongly related to RTW outcomes (Gardner, 1991). Further, when the pre injury employer discussed RTW with the injured worker early on, that worker was found to be much more likely to RTW, than when this did not happen.

3.3.2.6 Workplace Adaptations and Light / Recuperative Duties

Workplace adaptation and light duties promote safe and timely RTW among impaired workers on LTSA (Shrey and Breslin, 1992), which in turn maintains them in the worker role which decreases the chance of chronic disability developing and increases the likelihood of a successful return to full duties (Armstrong and Lyth, 1999). An early RTW enables workers to focus on RTW as a goal, to improve and
maintain work fitness, to maintain work skills and workplace relationships, and to counter feelings of loss and uncertainty (Kenny, 1995a).

Light job activities are matched to the physical restrictions of the ill/injured worker and are gradually increased until such time as the worker’s capacity is fully restored and again capable of returning to their normal duties (Crook et al., 1998; Dichraff, 1993; Dolney, 1992; Knowles et al., 2000). The duties are necessary to prevent an aggravation of the illness/injury and provide a safe work environment, while maintaining the injured worker in the workplace (Dolney, 1992). Workplace adaptations may include changes in the physical or cognitive demands of the job, shorter work hours, greater frequency of rest breaks and changes to the work process or workstation design (Crook et al., 1998).

Terms such as modified, alternative, or restricted work duties are used interchangeably in the literature. Several reviews suggest positive effects of modified work (Weir and Nielson, 2001). Krause, Dasinger and Neuhauser (1998) reviewed twenty nine empirical studies of modified work. Of those, thirteen studies of higher methodological quality were identified and used to evaluate the impact of a diverse range of modified work on the RTW experiences of workers who had been on LTSA. The authors concluded that provision of modified work was critical to RTW, and its absence was a major barrier to achieving a successful RTW outcome. They found that not only did the provision of modified work reduce the number of work days lost by half, but workers who were offered such programmes were twice as likely to RTW as those who were not. The available evidence also suggested that modified work was cost effective.

Matheson and Brophy (1997) looked at the effects of a modified early RTW after occupational back injury and found that there was a significant increase in the subsequent chances of successful return to normal duties. Similarly, Crook and colleagues (1998) found that subjects who were offered modified work were twice as likely to RTW.

Evidence suggests that light or modified work may be most effective when the worker can return to a job that incorporates at least some of their normal duties. The rationale being that when employees are transferred to duties that are completely different, there is often no link back to their previous work. This can mean no link to
anything familiar including duties, colleagues and environment. Moreover, reasonable adjustments to work tasks have been shown to enable those with disabilities to return to work (Thurgood, 1999). The most efficient and effective way to achieve a return to normal duties appears to incorporate consideration of the work requirements of individuals as well as their health and social needs. This means, where possible, allowing individuals to RTW doing as much as possible of their normal job, and gradually resuming additional tasks as they are able (Thurgood, 1997).

Ekberg (1995) emphasised the importance of returning to a good work environment, noting physical, psychological and organisational aspects. Each is said to represent a potential barrier to RTW and thus all must be addressed. Suitable duties should be individualised, goal-directed, time limited, meaningful and approved by the treating doctor. The work environment should be assessed for risk factors and may require ergonomic assessment. Ekberg (1995) suggested that workplace rehabilitation interventions that did not address changes to those conditions that contributed to the development of the illness/injury were unlikely to produce positive health outcomes.

Further support for the efficacy of workplace adaptations comes from a Canadian study which examined the effects of various forms of work accommodations on the likelihood of workers successfully RTW from LTSA and, after returning, having no further periods of related absence (Butler, Johnson and Baldwin, 1995). Using survey data from 1850 workers who had returned on either a temporary or permanent basis, the researchers found that after controlling for demographic factors, as well as impact of injury, those who had received accommodations such as reduced working hours and the provision of modified equipment and light workloads were both significantly more likely to return permanently and significantly less likely to experience further periods of absence stemming from their impairment (Butler et al, 1995).

A comparative study examining the experiences of workers in six countries who had been off work for more than three months with lower back pain also points to the potential value of workplace adaptations. It found that there was a high propensity for Dutch workers to RTW with their original employer and that this was, to some degree, related to the fact that they were more likely to receive work adaptations including reduced working hours, changes to job design/processes and therapeutic work resumption interventions (Cuelenaere, Veerman, Prins and van der Giezen, 1999).
Despite the positive effects of workplace adaptations and light recuperative duties, a number of barriers have been shown to exist with regard to their successful implementation. RTW efforts have been shown to be hampered by; lack of compliance by management and workers to RTW specifications (Urlings, Nijboer and Dul, 1990; Loisel, Gosselin, Durand, Lemaire, Poitras and Abenhaim, 2001b); lack of light recuperative duties (Frank et al, 1998; Goertz, 1990); poorly planned recuperative work assignments or the work is seen as ‘useless’, resulting in workers resisting the RTW (Baril et al, 2003); lack of social support from employees and colleagues (van Duijn, Miedema, Elders and Burdorf, 2004); negative RTW attitudes of the work disabled (van Duijn et al, 2004); and the lack of opportunities to accommodate the number of workers with temporarily restricted capacities, while maintaining the essential operations of their work units (Habeck and Hunt, 1999; van Duijn et al, 2004)

Furthermore, when the workplace characteristics, i.e. the physical characteristics and ergonomic factors, need improvement and are ignored the work disabled have been shown to be less likely to RTW (Faucett and Remple, 1994; North, Syme, Feeney, Head, Shipley and Marmot, 1993). in a recent study of incapacitated workers, results indicated that a quarter were unable to return to their place of work because of a lack of work adaptations (Meager et al, 1998).

Workplace adaptations and light recuperative duties with the same employer appear to be positive interventions that can help facilitate the RTW of the work disabled more quickly, successfully and cost effectively than if no such interventions are used (Crook et al, 1998; Mootz, Franklin and Stoner, 1999; Gardner, 1991). Several barriers to successfully implementing these RTW interventions have been observed. Employers who want to draw on the benefits of these interventions need to be proactive in their management of the work disabled in a manner that takes account of these barriers. This appears to offer a significant opportunity to reduce LTSA and positively assist the work disabled RTW.

3.3.2.7 Effectiveness and Quality of Claims Management

The effectiveness of claims is an essential component of rehabilitation. Delays in the processing of claims and discontinuities in claims administration have been shown to adversely affect RTW progress and impact the relationship between employers and
the work disabled (Wood, Morrison and MacDonald, 1995; PEPWH, 2000).

In the UK, because there is no federally administered premium based system, such as that found in Australia, records are not managed in the main (there are exceptions such as, self employed workers with income protection) by a third party. Most administration pertaining to illness and injury is managed internally by employers. There is an absence of research literature in the UK on how effective employers carry out these tasks and whether they do act as a barrier to RTW. However, it seems reasonable to suggest that just as workers in Australia perceive poor management of their claims to be a barrier to RTW, so could workers in the UK find it frustrating if personnel departments mismanaged their sickness absence cases. Whether this mismanagement is related to forgetting to send out paper work, being late with forms and the like, it could conceivably escalate to a point where a worker on LTSA became disaffected and less inclined to RTW. This area needs considerable empirical research before anything conclusive is known.

3.3.2.8 Labour Relations/Trade Unions

While there is little empirical research in this area Bruyere and Shrey (1991) stress the importance of having union co-operation at the outset of RTW negotiations otherwise it can be more difficult to gain agreement on identified modifications to work routines. They emphasise the importance of union representatives being included in any work related rehabilitation issue in order to achieve agreements that all stakeholders can co-operate with.

One dimension of this appears to be the inclusion of unions in the multidisciplinary team. Achieving joint union-management support for on-site interventions has been credited with being a significant contributing factor in the RTW efforts of companies (Bruyere and Shrey, 1991). For example, Tate (1987) reported that the success of the rehabilitation efforts at General Motors Corporation was strongly associated with the co-operative relationship that had been forged with the United Auto Workers Union.

Trends in work disability management suggest that both employers and injured workers benefit when the relationship is strengthened (e.g. when management takes an active role in protecting the employability of the worker and the worker responds
affirmatively to the employer's intentions). Unfortunately, the union and management in many employers are relatively uninvolved with injured workers. Moreover poor relationships between workers and managers can also have a negative impact on the resolution of any RTW initiative (Cohen, Parrinello, and Kelliher, 1990). Failure to achieve joint union-management support for RTW initiatives can also be costly. According to Cohen and colleagues, the poor union relations at Long Island Railroad meant that each individual RTW initiative had to be discussed and negotiated separately (e.g. resolving medical disputes, placement on restrictive duties). This resulted in a mean case resolution time of 90 days.

Researchers have suggested that in order to increase the success of any rehabilitation/RTW programme, it must pay close attention to union-management partnerships by involving the union from the outset of the rehabilitation process. Similar reviews of best practice internationally, including Canada and the US, show that strong labour-management partnerships are a key feature to successful RTW (Bruyere and Shrey, 1991).

Unfortunately, unions are often characterised as posing obstacles to rehabilitation efforts through, for example, the demands they negotiate into collective bargaining agreements. Evidence also suggests however, that this same process that is used to derive these agreements may facilitate rehabilitation and RTW efforts. For example, O'Connor (1988) reported that with the unions' cooperation, a number of Michigan hospitals had their seniority rules successfully waived, which resulted in greater options for injured workers to RTW (Bruyere and Shrey, 1991).

The evidence suggests that both employers and unions recognise the importance of protecting the employability of the worker (McLean, 2003). It is this common ground that has stimulated the development of collaborative union-management efforts to prevent costly work disruptions and to retain employees whose work performance has been compromised by injury or illness (Bruyere and Shrey, 1991).

3.3.2.9 Summary

The empirical literature reviewed here has highlighted a number of workplace factors that have been linked to LTSA and RTW outcomes. The evidence as to what constitutes successful work disability management would suggest that key elements
include: a work disability management strategy that is based in house in the workplace; integrated company health care; supportive and participative management polices and practices of RTW; job availability with the pre injury/illness employer; workplace adaptations and light recuperative duties; and collaborative management-union relations.

Integrated Company Health Care activities have proven to be a promising RTW intervention although much more research is needed to demonstrate the benefits. Work disability management policies appear to be an important factor in assisting workers on LTSA RTW. Employers who do not have these policies in place have been found to have higher rates of LTSA and lower RTW rates. Moreover, employers who have implemented a comprehensive Disability Management-RTW programme comprising core elements and practices as outlined by Habeck and Leahy (1991) have been found to be more likely to have fewer barriers that can impact RTW, shorter episodes of LTSA and higher RTW rates (Habeck et al, 1998)

3.3.3 Individual Domain Factors

It has been well observed, as will be demonstrated, that the amount of time off work following an injury or illness cannot be fully predicted from knowledge of the type and extent of the injury or condition. Consequently, regaining health does not necessarily result in return to work. For at least some workers, there will be a disproportionate disability and a delayed recovery compared to what, on average, would be expected from the assessed impairment (Burton et al, 2003; Rael, Stansfeld, Shipley, Head, Feeney and Marmot, 1995). A substantial body of empirical research has identified a wide range of individual characteristics and job role features that are related to prolonged work disability (for example, Reiso, Nygard, Jorgensen, Holanger, Soldal and Bruusgaard, 2003; Kenny, 1994; Tate, 1992; Wood et al, 1995; Hester, Decelles and Keepper, 1989; Cheadle, et al 1994; Selander et al, 2002). The literature on individual domain factors is now reviewed.

3.3.3.1 Demographics

Sex

Sex has been included as a variable of interest in a significant proportion of RTW research studies and the findings are mixed. Knutsson and Goine, (1998) looked at the prevalence of LTSA in common male and female occupations and determined that
while women had a higher prevalence of LTSA than men, the figures were not comparable as they represented different occupations. They found that in the only occupation which included both men and women (shop assistants), males had a higher rate of sickness absence.

Hester, Decelles and Gaddis (1986) found that women were more likely to RTW from LTSA than men. Others have reported similar findings (for example, Cairns, Mooney and Craine 1984; Jang, Li, Hwang and Chang, 1998). Gardner (1991) reported that women, not married, were more likely to RTW than men who were living with their spouses. However, women with young children at home were less likely to RTW. In contrast, several studies have found that men are significantly more likely to RTW compared to women (for example, Crook et al, 1998; Cheadle et al, 1994; Marnetoft, Selander, Bergroth and Ekholm, 2001). Others however have found no significant association between sex and RTW outcomes (Krause et al, 2001b; Dasinger et al, 2000; Gatchel, Polatin and Kinney, 1995). Rusch and colleagues (2003) found no such relationship in their population of 92 workers with upper body injuries (Rusch, Dzwierzynski, Sanger, Pruit and Siewert, 2003). Likewise, Blackwell and colleagues (2003) found no such relationship in their investigation of factors associated with RTW outcomes amongst 502 work disabled.

Regarding duration of sickness absence episodes, research findings are equally mixed. Galizzi and Boden, (1996) reported that women RTW more quickly than their male counterparts. Similarly, Hlatky and colleagues (1998) reported that episodes of LTSA were shorter for females compared to males. In contrast, others have found that being female is associated with significantly longer episodes of LTSA (for example, Cheadle et al, 1994; Kemmlert and Lundholm, 1994; Crook et al, 1998). Still others have found no effect for sex on duration of LTSA (for example, Rossignol, Suissa and Abenhaim, 1992; Dasinger, et al 2000; Krause et al, 2001b)

On balance the studies reviewed here give a mixed message about any relationship between sex and duration of LTSA and RTW outcomes. Some studies show that females represent a disproportionately high percentage of those on LTSA while others do not; some studies indicate that men more often RTW, while others do not; and some have shown females take shorter episodes of LTSA. Thus the picture remains unclear (Selander et al, 2002). These differences highlight the need for further research regarding the impact of sex on LTSA and RTW outcomes.
In a historical review of RTW predictors, Shaw and Polatajko (2000) reported that age is the strongest predictor of work disability. Age has been found to have a strong impact on RTW outcomes when other factors like type of injury, pre-injury earnings, education, and tenure on the job are accounted for. Where age has made a difference, its effects have been as expected; age is positively related to LTSA, and RTW rates are generally considered to be slower among older workers (Gluck and Oleinick, 1998; McIntosh, Frank, Hogg-Johnson and Bombardier, 2000; Goine, Knutsson, Marklund, and Karlsson, 2004; McLean, 2003; Knutsson and Goine, 1998; Cheadle et al, 1994; Gardner, 1991). This is probably due to the positive correlation between age and prevalence of chronic diseases. The number of medical visits following illness/injury increases incrementally as workers age (Wright, Mayer and Gatchel, 1999). When older employees become unwell, they are more likely than younger employees to have a serious medical condition that could affect fitness for work. Eventually, LTSA can lead to a permanent incapacity for work. Workers who are 51 years or older have been found to be least likely to attempt a return to work, with a twenty per cent decrease in the RTW outcomes for every ten years increase in age (Crook et al., 1998).

An extensive study in the USA confirmed that, compared to workers between 25 and 54 years old with similar employment histories (including job tenure) and personal characteristics, workers older than this took significantly longer to RTW. Looking specifically at injuries lasting greater than 20 working days, workers under 25 returned eight per cent faster than the 25 to 54 year olds, while workers 60 years and older averaged seven per cent longer off work (Galizzi and Boden, 1996). Translated, for an injury that would have taken 90 days for a 40 year old worker to RTW, a 22 year old worker with otherwise similar characteristics would have RTW a week sooner; and a 60 year old worker would have returned about a week later.

Fenn and Vlachonikolis (1986) looked at the relationship between age and RTW outcomes and reasoned that two key variables were in play. Firstly, they reported that age slows the speed of RTW partly because of the increased difficulty that older people encounter in physically recovering from illness of injury. Secondly, they observed that because older workers are of retirement age, the injury or illness can provide a push into retirement rather than a RTW (Fenn, 1981; Fenn and Vlachonikolis, 1986). Older workers, especially those who are nearing retirement may
opt to exit the system amid concerns about securing future employment whereas younger workers may be more likely to RTW as soon as possible, fearing loss of skills and experience the longer they remain away from work (Morrison, Wood and MacDonald, 1995).

Blackwell and colleagues (2003) examined which variables would improve the prediction of RTW status for injured workers on LTSA. Among the most significant predictors of RTW status was age. Injured workers who were less than 50 years of age were much more likely to return to work. Similarly, in a study of injured workers in Australia, older workers were found to have significantly more time off than younger workers (Kenny, 1994). Knutsson and Goine, (1998) looked at the prevalence of LTSA in common male and female occupations and determined that there was an increasing trend of LTSA rates with age.

This relationship between age and LTSA is not however universal. Pransky and colleagues (2005) specifically investigated the relationship between younger and older workers and outcomes of work related disability (Pransky, Benjamin, Savageau, Currivan, and Fletcher, 2005). Their findings indicated that despite more severe injuries in older workers, in multivariate models age was unrelated or inversely related to RTW outcome. These findings were attributed to longer workplace attachment. In another prospective study that examined the relationship between a number of individual domain factors and RTW outcomes, the researchers found that at 3 and 12 month follow ups age was unrelated to outcome (Feuerstein, Huang, Hauffler and Miller, 2000).

Recent UK government census data supports this inconsistent picture. Government estimates suggest that of the 2.7 million recipients of incapacity benefit, 1.8 million should be capable of some form of employment if steered firmly into undertaking it. There are 159,000 people under 25 on the incapacity list (a 60 per cent rise since 1997) (DWP, 2006). Of the total, almost six in ten have been claiming for more than two years.

While age can easily be understood as a factor that can predict the chances of job return, as a person ages, the overall health of an individual begins to decline, the potential of age to explain RTW behaviour after illness or injury when an individual is young and considered healthy is not so readily understood. While many have
reported that age is the strongest individual factor predicting RTW outcomes, the picture lacks clarity especially with regards to youth and prolonged work disability and requires further research.

**Education**

Education has been linked to RTW outcomes. Several studies have found that the work disabled who RTW have had significantly more education than those who take longer or remain on LTSA (Fishbain, Cutler, Rosomoff, Khalil, and Steele Rosomoff, 1997; Gaddis, 1986; Tate, Munrowd, Kasim, Adams, and Habeck, 1986; Ray 1986; Kenny, 1998). In addition, studies in the US and Australia have found that work disabled are more likely to RTW if they have at least minimal English speaking ability (Gardner, 1991; Wood et al, 1995).

Galizzi and Boden, (1996) reported that workers whose education and skill levels were low had significantly longer durations off work. Similarly, Martin and Morgan (1975), in their extensive survey conducted in 1972/73 on behalf of the UK Department of Health and Social Security, compared groups of people who had been on LTSA for 1, 3, 6, and 12 months respectively to identify factors associated with increasing length of absence and the prospects of RTW. The authors found that those on longer term sick were more likely that the shorter term sick to be have been in an unskilled job before going off work and to have no training or qualifications. The authors also compared those who remained on LTSA after a given period of time with those who had RTW and found the groups differed significantly in their education. Those who had returned to work were significantly more trained and qualified.

Blackwell and colleagues (2003) sought to identify which variables would improve the prediction of RTW status for long term work disabled. Education was found to be among the most significant predictors of RTW status. Injured workers who had more education pre injury were significantly more likely to return to work. Similarly, Straaton, Malsak, Wrigley and Fine (1995) found that low education level was related to poor RTW rates. While Shrey and Bangs (1991) reported that number of years education was positively related to successful RTW among a sample of people in the US on social security income replacement payments.

One explanation for lower education being a barrier to RTW is it places limits on the choices and possibilities that such people have. Less educated, less trained workers
have fewer opportunities to move within and between organisations.

**Pre-Illness/Injury Health History**

A person's health history has been linked to RTW outcomes from LTSA. Premorbid factors (i.e. measured before the illness/injury event) that have been implicated include psychiatric disturbance, below average self-rated health, low levels of physical activity, and current or previous smoking (MacFarlane, Thomas, Croft, Papageorgiou, Jayson and Silman, 1999; Thomas, Silman, Croft, Papageorgiou, Jayson and MacFarlane, 1999).

The Whitehall II study found that there was a strong relationship between LTSA and reported levels of general health (North et al, 1993). Men and women who reported average or worse health in the previous twelve months had sixty per cent higher rates of short spells and more than twice the rates of long spells compared with those who reported good health. No clear relation between alcohol abuse and LTSA was found for men or women, although men who were frequent consumers (more than once a day) of alcohol had elevated levels of LTSA. In contrast, Lustman, Velozo, Eubanks, Montag, and Cole, (1991) found that the presence of clinical depression and either a history of alcohol abuse or current alcohol abuse were significantly associated with the failure to achieve RTW goals.

Regarding the relevance of prior psychiatric disturbance to RTW outcomes the findings are mixed. Clinical assessments of workers who have unexpectedly failed to RTW have identified an immature and dependent personality structure together with elevated scores on Hysteria and Hypochondrias (MMPI-2, MMCI-2) (Kenny, 1996b). Similar profiles were reported in samples of injured workers with low back pain who demonstrated poor RTW rates (Gallagher, Rauh, Haugh, Milhous, Callas, Langeller, McCiAllen and Frymoyer, 1989; Barnes, Smith, Gatchel and Mayer, 1989). One study found that respondents with a pre-morbid pessimism were less likely to RTW (Barnes et al, 1989). Similarly, Polatin and colleagues (1993) found a significant relationship between chronic low back pain and a positive history of depression and anxiety although the authors did not comment on demographic details including work status (Polatin, Kinney, Gatchel, Lillo and Mayer, 1993). In another study however, the prevalence of a history of major psychopathology such as depression was shown not to discriminate between respondents who had returned to work versus those who had not (Gatchel, Polatin and Mayer, 1995). More recently, this same group of
researchers sought to clarify the ‘chicken and egg’ question of which occurs first, psychiatric disturbance or the illness/injury culminating in LTSA (Dersh, Mayer, Theodore, Polatin and Gatchel, 2007). They reported that the percentage of work disabled with pre-existing MIH was lower than the general population and concluded that a history of psychiatric disturbance is not a risk factor for developing chronic work disability disorder.

Although the MMPI-2, MMCI-2 scales measure relatively stable personality characteristics, the conclusions drawn about the relationship between individual characteristics and RTW outcomes need to be balanced with findings from the unemployment literature that indicate unemployed groups show more symptoms of anxiety and depression than employed individuals and that unemployment may cause mental health problems through the effects of financial strain, marital difficulty, and reduced affiliation in personal and social networks. Reemployment has been shown to frequently produce a complete reversal of the psychological distress associated with job loss (Kessler, Turner and House, 1987; Price, 1992).

In a study by Kessler, Turner and House (1987), the mental health impact of involuntary job loss was investigated in a sample of currently unemployed, previously unemployed and steadily employed persons. The investigators showed that unemployed people demonstrated more symptoms of anxiety and depression than did the employed individuals. To strengthen the evidence that unemployment was causing mental health problems rather than the reverse Kessler and his colleagues identified a sub-sample of unemployed people who had lost their jobs unexpectedly as a result of a mass layoff. The authors reasoned that these people were unlikely to have become unemployed because of mental health problems. The results for this sub-sample were found to be identical to those of the larger study suggesting that job loss did create the mental health problems.

Other health characteristics have been implicated in RTW outcomes. Workers who perceived their experienced health to be better were more likely to RTW (Ostrow, Parente, Ottenbacher and Bonder, 1989; Feurestein and Thebarge, 1991; Jensen, Turner and Romanio, 1991), while workers with less health locus of control or an external locus of control were less likely to RTW (Ostrow, Parente, Ottenbacher and Bonder, 1989; Gallagher et al, 1989).
A person’s likelihood of successful RTW from LTSA has also been linked to earlier sick leave. RTW rates were found to be worse when there had been multiple previous episodes of absence (Berquist-Ullman and Larsson, 1977; Troup, Martin and Lloyd, 1981; Lancourt and Kettelhut, 1992); and when the absence periods were lengthy (Troup, Martin and Lloyd, 1981). Goine and colleagues (2004) compared three different outcomes (short term, long term and very long term sick leave) in two paper mill plants that had been given financial support for rehabilitation activities. Spanning two periods, 1989-1993 and 1994-1998, they found that employees who took a great deal of sick leave (many days) in period one had an elevated risk for all three outcomes during the second period (Goine, Knutsson, Marklund, and Karlsson, 2004).

**Pre-Illness/Injury Employment History**

A very strong relationship between pre injury employment continuity and the speed of RTW has been found. Galizzi and Boden, (1996) reported that workers with a continuous employment history took significantly less time to RTW from an episode of LTSA compared to those who had had a period of unemployment in the year prior to injury. These authors estimated that other things being equal, if two workers had an injury that led the continuously employed worker to RTW in 90 days, the intermittently employed worker would remain off work an additional 30 days, in other words, it took thirty four per cent longer to RTW.

One suggestion to account for this finding has been that intermittent employment may reflect limited training or skills and may also be a sign of the labour market forces in these workers’ industries. For example, disproportionate numbers of workers with intermittent employment have been found to be employed in industries that are subject to seasonal variations, such as meat processing plants, or broader economic fluctuations as in the construction industry (Galizzi and Boden, 1996). It has also been suggested that workers with intermittent employment may exhibit less attachment to employment compared to non work activities. This lower attachment displays itself before the injury as periods of unemployment and may lead to longer periods of LTSA after the injury regardless of rehabilitation/RTW efforts by employers. These non work activities could be young workers with few responsibilities or with plans to continue schooling, people with family responsibilities that conflict with work, older workers considering retirement, or workers in low income, unpleasant jobs. For them, an injury may tip the balance from continuing to work to remaining off work (Galizzi and Boden, 1996).
The impact on RTW of pre injury employment continuity confirms the importance of the individual's labour market history in determining the duration of time off work (Galizzi and Boden, 1996). This is similar to a finding of Dean and Schmidt (1994) based on the employment experience of injured workers in Florida. They found that those with continuous employment had significantly less time off work post injury compared to those with intermittent employment histories.

**Job Tenure**

Job tenure has been linked to RTW outcomes from LTSA. The evidence suggests that workers who have been recently hired take significantly longer to RTW after illness/injury. Galizzi and Boden (1996) examined otherwise similar injured workers who were off work at least 30 consecutive days. Compared to people with less than 6 months' tenure, those with at least one year's tenure took an average of thirty two per cent less time to RTW. For a ninety day injury, this translates into a saving of roughly thirty days. The researchers found that even among workers with six to twelve month's tenure, they returned twenty six per cent more quickly than the very short tenured employees. Workers with job tenure under six months took significantly longer to RTW (Galizzi and Boden, 1996).

This trend is similar to that found in a large unionised auto manufacturing employer in Michigan. The results of the study showed that injured workers who successfully RTW had significantly more years of employment with the employer than those who took longer or did not RTW (mean of 15 years) (Tate et al, 1986). Likewise, in a study Infante-Rivard and Lortie, (1996) employees with more than 24 months of employment in the job were much more likely to RTW.

Loyalty has been proposed as a factor that may explain the differences that people with different lengths of tenure demonstrate in their RTW behaviour. For the short tenure employees, it has been argued that they may not feel responsible to return quickly, as they have not been in the job sufficiently long enough to develop loyalty. Another plausible explanation is that relative to longer tenured workers, short tenure employees are less attached to the labour market, as noted previously, valuing non work activities more than work (leisure, family, hobbies, schooling etc.) and so when they are injured or become ill they may be less motivated to RTW quickly (Galizzi and Boden, 1996).
3.3.3.2 Psychological

There is strong evidence that psychological aspects play a significant role in RTW outcomes. Burton and colleague's (2003) detailed review of the literature pertaining to the risks associated with long term incapacity in people suffering relatively common ailments (musculoskeletal, mental health problems and cardio-respiratory) emphasised just how significant psychosocial characteristics are as predictors for long term incapacity. The collective findings from their review suggest that psychosocial changes become entrenched by six months and that injured/ill workers become ever more distanced from the labour market, making the obstacles to coming off income support and RTW greater, and the probability of any intervention being useful, less likely. The authors concluded that anyone remaining off work beyond six months was a high risk for very long term incapacity. Psychological aspects will now be explored in greater detail.

Perceptions of Illness/Injury and Self Predictions of Recovery and RTW

There is a growing body of work that suggests a person's perceptions of their disability and environment is likely to vary across individuals (i.e. phenomenologically unique), and these perceptions differentially influence the decisions that an individual makes about RTW following an episode of LTSA (Feuerstein and Thebarge, 1991). A relationship between perception of disability and actual function has been observed in patients with chronic pain (Dolce, 1987). More recently, a review of sixteen high quality studies (Mondloch, Cole and Frank, 2001) examining the impact of expectations about recovery and RTW outcome found that recovery expectations were predictive of RTW rates at 6 weeks (Petrie, Weinman, Sharpe and Buckley, 1996), 6 months (Maeland and Havik, 1987) and one year post cardiac incident (Diederiks, van der Sluijs, Weeda and Schobre (1983). Return to work expectations measured in the 6 month study was found to be the strongest predictor of RTW outcome, independent of disease severity, age, job role or sex.

Shaw and colleagues (2002) sought to explore the relevance of individual perceptions of personal and environmental issues on RTW outcomes among the work disabled. Respondents had to have been off work at least 6 months at the time of being interviewed. The authors found that two distinct yet related constructs emerged from participant's work disability experiences, the personal meaning of disability and return to work relevancy. Participant's beliefs and perceptions of how their impairments
impacted upon their short and long term abilities to engage in activities and the personal relevance of returning to work contributed to the variation in RTW outcomes. To demonstrate this, the authors compared the experiences of participants with known predictors of RTW, severity of injury and physical characteristics of work. Currently, the medical perspective would treat severity of injury, measured by the degree of impairment, as a biological barrier to RTW. However the individual’s perception of the impact of their impairment upon ability and function to work differed substantially. Accordingly, the authors concluded that the determination of work disability cannot rest with biological determinants alone.

A number of other studies have found evidence that associates a person’s self assessment of their ability and likelihood of RTW with RTW outcome and prolonged work disability; in all cases an individuals’ prediction of continued disability predicted prolonged LTSA (Tan, Cheatle, Mackin, Moberg and Esterhai, 1997; Hogelund, 2000; Hogg-Johnson and Cole, 2003; Fishbain et al, 1997; Frymoyer and Cats-Baril, 1987). Reiso and colleagues (2003) sought to identify predictors for RTW from LTSA among patients with back disorders. The authors reported that participants who assessed themselves as having low work ability and predicted that they were unlikely to RTW had significantly longer episodes of LTSA than those who did not. Likewise, Sandstrom and Esbjornsson, (1986) found that the expectation that an injured worker held about an eventual RTW was a significant predictor of actual RTW following a rehabilitation programme. Similarly, Berglind and Gerner (2002) found that wanting to RTW was connected to a person’s assessment of their own possibilities, which in turn was linked to their perceived level of ability.

It is reasoned that individuals’ perceptions of work disability and expectations about when and whether to RTW may in part explain why a particular illness or injury does not always lead to a fixed time off work. Injury and injury impact are different (James, 1989). Thus, a serious injury may occur without an impact (after physical recovery), and a minor injury may result in a catastrophic impact for the injured worker. Even in the event of a clear physical incident such as a myocardial infarction, significant differences have been reported in the time it takes patients to RTW and between recovery in the medical clinical sense, and therefore the moment of a possible resumption of work, and the actual RTW (Shrey and Mital, 2000). Termined the ‘medical paradox’, the discrepancy in time between returning to a ‘well state’ and returning to work has been shown to be influenced by non medical factors, including
perception of disability (Feuerstein and Thebarge, 1991).

Workers react differently to their illness/injury and make different decisions under different circumstances (Smulders, 1980). Kenny (1994), investigated the determinants of time lost, measuring only one impact, i.e. the time lost following workplace injury/illness. However, even with this simple unitary impact measure, there was a disjunction between injury and impact to a degree which was not predicted. The injury itself did not account for most of the variance, rather non medical worker variables did.

The research findings reviewed here suggest that individual perceptions of work disability and their self predictions about RTW are significant individual domain factors to RTW. This underscores the importance of patient expectations to RTW on RTW outcome.

**Motivation to Return to Work**

The relationship between being motivated to RTW from LTSA and RTW outcomes has received considerable empirical attention. Research has been conducted in various disciplines and countries, including back pain management (Jensen and Bodin, 1998; Polatin, Cox, Gatchell and Mayer, 1997), chronic pain disorders (Feuerstein and Thebarge, 1991), mental health (schizophrenia) (Reker and Eikelman, 1997), renal transplantation (Markell, Di Benedetto, Maursky, Sumrani, Hong, Distant, Miles, Sommer and Friedman, 1997), and carpal tunnel syndrome (Feuerstein, Burrell, Miller, Lincoln, Huang and Berger, 1999), all of which reported similar conclusions, i.e. that given comparable levels of ongoing disability/incapacity, the strongest prognostic indicator of which patients will RTW is their intention to do so, combined with suitable work availability (Fishbain et al, 1997). Motivated subjects more often RTW (Sheikh and Mattingly 1984) as do subjects who strongly believe in a return to work (Sandstrom and Esbjornson, 1986; Eklund, 1992; Hildebrandt, Pfingsten, Saur and Jansen, 1997).

Kenny (1995b) reported on a series of in depth interviews with work disabled in order to try and explicate the factors which differentiated between those who RTW and those who had not. One of the major themes that became apparent related to worker characteristics. Workers who RTW, in general, were described as demonstrating 'a tenacity, a capacity for self advocacy, autonomy, motivation and self efficacy which
was often missing in workers with similar injuries who did not RTW’ (p. 37).

Baril and colleagues (2003) found that the beliefs and attitudes that work disabled held about their injury, recovery and work were significant in RTW outcome. Some simply did not want to work while in pain, while for others, RTW and being active was perceived as therapeutic. Still others were fearful of further injury or embarrassed by their condition, not wanting to RTW until they were fully capable of resuming their regular jobs. Worker motivation was described as crucial in RTW outcome as it affected their collaboration in the RTW process. However, different stakeholders had diverse views on what influenced worker motivation and RTW outcomes. HR and occupational health professionals were of the view that the individually held attitudes of work disabled influenced their motivation to RTW or not, and for the latter group, explained their resistance to modified work (‘They don’t want to work’). Conversely, health and safety managers, the work disabled and union representatives attributed worker motivation primarily to the organisational factors of workplace culture and whether the employer was perceived to be genuinely interested in worker well being (Baril et al, 2003).

Gard and Soderberg, (2004) in their study of the work rehabilitation process in Sweden determined that for successful work rehabilitation, a focus on goals and psychosocial factors were important. In particular, they found that clear RTW goals held by both the work disabled and their employer and a positive attitude towards the job on the part of the work disabled were two essential components for an effective RTW process (Gard and Soderberg, 2004). Similarly, Cornally, (1996) reported that the most important ingredient to any RTW programme was motivation, and without it, no progress can be made.

The evidence reviewed here suggests that the attitudes and goals of the work disabled, the employer and the other key stakeholders must be compatible. If the goals are not mutual then failure is more likely.

Psychological Symptomology
The presence of non organic psychological symptomology, in particular anxiety and depression, has been found to be associated with longer episodes of LTSA and poorer RTW outcomes (Shrey and Mital, 2000; Thomas, Silman, Croft, Papageorgiou, Jayson and Macfarlane, 1999; Kaiser, Mattsson, Marklund and Wimo, 2001). This
relationship has most commonly been investigated within the context of chronic pain or chronic illness disability where co morbid incidence rates as high as 87 per cent have been reported (Lindsay and Wyckoff, 1981). Chronic illness behaviour has been described as a discrepancy in view between the patient and the doctor of the seriousness of the condition such that the patient develops behavioural symptoms that are said to signify psychological distress that is disproportionate to the organic disorder, in particular back pain (Waddell, 1980). Secondary non organic symptomology, especially somatization, depression and psychological distress, to a clinically resolved primary physical diagnosis, typically musculoskeletal, have been consistently and strongly associated with chronic pain disability (Feuerstein et al, 1994; Burton et al, 2003).

In one study, patients with low back pain who exhibited non organic symptoms had a median of 58 days off work per episode of pain compared to 15 days for those with no non organic symptoms (Gaines and Hegmann, 1999). In another study that investigated RTW outcomes after treatment for a musculoskeletal disorder of the upper extremity, psychosocial classification of the worker was the primary factor in prolonged disability (Bonzani, Millender, Keelan, and Mangieri, 1997). Meanwhile, in a further study, work disabled who were most psychologically distressed were nearly five times less likely to RTW than the least distressed (Crook et al., 1998).

The importance of psychological symptomology in RTW outcomes was reinforced recently in a study by Vowles and colleagues (2004). They evaluated the relation of a broad range of physical, demographic and psychosocial factors to post treatment intervention RTW status in a sample of work disabled experiencing long term pain. The authors reported that a general measure of depressive symptomology and psychological distress was the most significant factor predicting post treatment work status (Vowles, Gross, and Sorrell, 2004). Psychosocial factors were more strongly related to RTW outcome than were physical capacity variables which replicates the findings of several other researchers (for example, Vowles and Gross, 2003; McCracken, Gross, and Eccleston, 2002; Hildebrandt et al, 1997; Fishbain, Rosomoff, Goldberg, Cutler, Moty, Khalil, and Rosomoff, 1993)

To determine the extent to which psychopathology could be used as a predictor of RTW outcomes among chronic pain patients, Gatchel, Polatin and Kinney (1995) evaluated 324 pain patients. They found differences among those individuals who
RTW within twenty six weeks and those who remained off work with respect to personality disorder and scale 3 of the MMPI-2 (hysteria). Others (e.g. Linder, Poston, Haddock, Foreyt and Ericsson, 2000; Gatchel, Polatin, Mayer and Garcy, 1994) however have not found baseline personality traits and psychopathology to be useful predictors of disability status in pain patients.

Ericsson and colleagues (2002) evaluated the usefulness of baseline personality traits and the presence of psychopathology in predicting RTW outcomes among people on LTSA (Ericsson, Poston, Linder, Taylor, Haddock and Foreyt, 2002). The authors found that age and a baseline diagnosis of depression significantly predicted subsequent disability status, while baseline personality traits and the diagnosis of personality disorder were not useful predictors of disability status. The researchers concluded that depression may play a role in prolonging disability and hence act as barrier to successful RTW outcomes.

Chronic pain disability is primarily defined by psychological symptomology and is a significant barrier to RTW, with a high financial cost associated with it in terms of lost occupational productivity and disability payments (Gatchel and Mayer, 2000). Despite the many studies that refer to the impact of psychological symptomology on recovery and RTW following illness/injury, appropriate treatment in this area has been shown to be lacking. For example, William, Feuerstein, Durbin, and Pezzullo, (1998) reported that less than one per cent of long-term (greater than six months) cases accessed any mental health services. When depression was diagnosed, therapeutic action was only pursued in less than half the cases and medical practitioners often prescribed psychotropic medications (anti-anxiety preparations) instead of appropriate antidepressant medications or other therapeutic interventions (Cohen, Nicholas and Blanch, 2000). Lack of attention to this psychosocial marker in work disabled may negatively influence recovery rates and RTW outcomes. Medical practitioners involved in occupational medicine need to use an evidence-based approach to their medical treatment and should consider the influence of psychological disturbances when using a specific treatment method (Fraser, 1996).

In sum, the presence of psychological symptomology can act as a significant barrier to RTW especially following functional restoration.
Compensation Neurosis and Return to Work

Compensation neurosis is defined as a combination of emotional and physical symptoms that develop after a compensable or litigious illness/injury, characterised by subjective reports of continued disability beyond the expected period of recovery, and disparity between pain reports and physical injury. General symptoms include headaches, exertional or postural dizziness, irritability, poor concentration, sleep disturbances, motor weakness and sensory loss and the individual's firm belief that the overt disability is unrelated to their reported unfitness for work (Judd and Burrows, 1986). Compensation neurosis is not listed in the Diagnostic and Statistical Manual of the American Psychiatric Association (American Psychiatric Association, 1994) as a disease in its own right.

Compensation neurosis has been associated with increased time off work. Researchers have reported that an individual's psychological reaction (compensation neurosis) to their injury and the effect of secondary gains (reinforcement) which ensue, can be as disabling as the original injury (Burgel, 1986; Fitzler, 1983; Hanson-Mayer, 1984; Headley, 1989). Contrary to popular belief, evidence suggests that many compensated workers do not make a full recovery once a claim has been settled (Guest and Drummond, 1992). Instead, many patients with compensation neurosis have been found to be either: fearful of re-injury; lacking in self esteem; estranged from their workplace and community; or perceive the likelihood of themselves RTW as low (Parascandola, 1993). These psychosocial factors have been shown to have a greater influence on the length of disability than the severity of illness/injury, type of treatment, competence of the treating doctor, age and employment history (Parascandola, 1993).

Much of the research into the concept of compensation neurosis and secondary gain has focused on trying to explain the anomalies between compensable and non compensable injury groups. Issues of payment caps (or absence of them) have also been addressed. There is little published evidence regarding the impact of specific legislation and systems on the duration of the claims and RTW outcomes, although notably the study by Bednar, Baesher-Griffith and Osterman (1998) clearly shows the negative effect of unrestricted compensation on RTW outcomes and duration of claims when compared to other locations that provide limits on the duration and nature of compensation payments for work related injuries.
Locus of Control and Return to Work

While there have been numerous studies on the efficacy of various treatments for workers on LTSA with ailments such as low back pain, the associated RTW rates vary considerably, from a high of eighty seven per cent (Kohles, Barnes, Gatchel and Mayer 1990) to a low of twenty three per cent (Oland and Tveitan, 1991). Turk and Rudy (1991) observed the wide variability in the RTW rates of workers with the same diagnosis, and argued that psychological rather than biomedical factors most influence the degree of disability displayed by persons with chronic pain conditions such as those associated with sprains and strains of the back. In particular, Turk and Rudy (1991) suggested that patients’ perceived control over their lives was a key psychosocial variable which explained RTW outcomes following work related injuries involving persistent pain.

The construct of locus of control (Rotter, 1954: 1966) is about perceived control and has been studied for its degree of association with many health related behaviours. For example, Crisson and Kneefe (1988) found that locus of control was related to the ability to tolerate pain; and Abbot and Berry (1991) found that following myocardial infarction, individuals were significantly more likely to RTW if they had an ‘internal’ locus of control. Results from studies such as these suggest that locus of control might be a major psychological variable influencing RTW outcome.

Locus of control has been an influential concept in social psychology where it has been treated as an enduring individual characteristic (Rotter, 1966). It differentiates between people who believe that they themselves are primarily responsible for what happens to them (said to have an internal locus of control) and those who believe that major events or achievements in their lives are largely determined by other people or forces beyond themselves (said to have an external locus of control). This distinction between internal and external locus of control thus characterises people in terms of their beliefs, and these beliefs are assumed to be stable over time and across situations. While the empirical evidence does not sufficiently support these assumptions, locus of control is sufficiently stable to be taken as a element of the person that affects rehabilitation and the outcome of rehabilitation.

In order to test the relationship between locus of control and RTW outcomes Murphy and colleagues (1995) studied a group of back injured workers. The authors reported that RTW outcomes were most accurately predicted for those who had RTW (85 per
cent correctly classified) (Murphy, Young and Kim-Mai Vo, 1995). The results suggested that an individual with a high internal locus of control is more likely to RTW following injury. The findings are important for the view that a person’s perceived control has an effect on their behavioural achievement.

A variant of locus of control is the health locus of control, a theoretical construct which has been widely used in health research. It refers to a person’s belief in his own control over illness. A common finding is that the outcome is more positive in people who strongly believe in their internal control over illness (Wallston and Wallston, 1981). For example, Gallagher and colleagues (1989) found that subjects with less health locus of control were less likely to RTW. Similarly, Wiegmann and Berven (1998) reported that those with a strong belief in internal control improved their physical functioning more than others. An injured worker’s level of motivation and belief in the RTW positively correlated to RTW outcome. Not all studies have, however, confirmed these findings.

Length, Absence Phases and Return to Work

Time is a critical factor in determining RTW outcomes. It is well established that the longer an injured worker is away from work, the less likely they will be to RTW (e.g. Reiso et al, 2003; Cunningham and James, 2000; Martin and Morgan, 1975; Shrey and Mital, 2000; Robinson et al., 1997; Hildebrandt et al, 1997). Taking lower back pain as an example, after six months off work, there is about a fifty per cent chance of a RTW, which falls to twenty five per cent at one year and ten percent at two years. Few individuals return to any form of work after one to two years absence, irrespective of further treatment (Robinson et al., 1997).

While time away from work is known to be a major obstacle to RTW, just how much time away varies across studies. Janssen and colleagues (2003) reported that the first four months of sick leave were important because after that period the chances of RTW significantly decrease. Others have suggested that the critical window of opportunity for return to work is within the first few weeks of becoming ill/injured (Galizzi and Boden, 1996). After twelve weeks the prevalence of physical disability and mental health increases considerably and problems become more difficult to resolve.

Galizzi and Boden, (1996) reported that the estimated impact of time off work on
future employment indicated that returning to work during the first six months after
injury was particularly important. Moreover, the longer workers took to RTW, the
more likely they were to have future spells of unemployment. Hence, the longer
workers are off work on LTSA, the more unlikely is both their RTW and their remaining
in continual employment.

Prolonged absence from work has been found to have adverse effects on health
(Thomas et al, 2004; Bartley, 1994), particularly mental health (Jackson and Warr,
1984; Burton et al 2003), with those who have been unemployed for more than twelve
weeks suffering between four to ten times the prevalence of depression, anxiety and
somatic illness (Claussen, Bjorndal and Hjort, 1993). Murphy and Athanasou, (1999)
reviewed 16 recent longitudinal studies for evidence relevant to the view that one’s
working status can impact upon mental health. The authors concluded that there was
a reliable deterioration in mental health associated with an absence from work.
Similarly, Walter, (1988) examined the RTW behaviour of patients following coronary
artery bypass surgery, and found that after two months away from work, patients
began to show psychosomatic problems that reflected a discrepancy between their
subjective complaints and objective clinical findings.

The ability of individuals to cope with the psychological effects of prolonged absence
varies considerably, and significant numbers of long term sick move on to sickness
and disability benefits. Within this group, barriers to RTW can develop quickly. For
example: deterioration in physical and mental health; adaptation to life on benefits;
perception that financial gain for RTW rather than remaining on disability benefits is
unacceptably small; and satisfaction with the lifestyle outside of work which allows
pursuits of other interests (Thomas et al, 2004; DWP, 2006). Whatever the reason,
the longer the absence continues; the less likely is a RTW.

Of late, there has been increasing attention placed on the time dependency of RTW
factors, with the suggestion that they should be viewed from a developmental
perspective, acting at different points along the disability timeline after the initial onset
of illness/injury (Burton et al, 2003; Krause et al, 2001a/b). Within this view the
disability timeline is broken into three broad phases and while individual studies may
choose different cut points between phases there is broad agreement of acute (up to
30 days) sub acute (30 to 90 days) and chronic disability phases (more than 90 days)
(Krause and Ragland, 1994). Research using these phases has been able to
demonstrate that a failure to stratify analyses according to work disability phases can lead to the masking of the effects of specific risk factors (Oleinick, Gluck and Guire, 1996; LeBoeuf-Yde, Lauritsen and Lauritsen 1997).

The concept of phase specificity has demonstrated its usefulness in identifying previously unobserved predictors and the time specificity of others (Frymoyer, Rosen, Clements, and Pope, 1985; Oleinick et al, 1996; Frank et al, 1998; Krause et al, 2001b). This has important implications for the timing of interventions to ensure the most expeditious RTW possible is achieved and the risk of chronicity is reduced.

3.3.3.3 Social

Social Support

The nature and quality of social support available to individuals determines health and general well being, with positive social support being associated with reduced risk of poor health (Albrecht and Adelman, 1987; Shinn, Lehmann and Wong, 1984; House, Umberson, and Landis, 1988). Similarly, social support has been found to be an important factor in for the successful reintegration of the work disabled to work (Ganster, Fusilier and Mayes, 1986; Shadbolt, 1988). Kenny (1996b) found that the majority of work disabled who made a timely return to work after LTSA reported that they had had support of family and friends. Similarly, in another study, work disabled who received negative support from a relative or close friend were found to have a significantly lower RTW rate compared to those who received positive support from a relative or close friend (North et al, 1993). Likewise, Medin, Bendtsen and Ekberg, (2003) observed that in a population of female workers who remained on LTSA, none felt they had any social support from significant others.

Unfortunately, the primary focus of injury management and interventions is often restricted to the principle medical condition. Typically, little effort is made to break down the barriers which tend to build up in the work and home domains and, thus, influence how injured workers reconstruct their work and life.

Roberts-Yates (2003) in her study of individual worker's perceptions of impediments experienced in the RTW process reported that social support was perceived by many workers to be an 'imaginary landscape'. Many respondents alleged that they had never been given adequate preparation for their return to the workplace and wanted
support, compassion and communication to be active elements of their rehabilitation. Workers commented that they lost communication with everyone, took out their frustrations on the children, turned into a pessimist because of the injury, which in turn left them feeling that their whole lives had collapsed. Many of these injured workers reported feeling vulnerable, alone and disconnected even in ordinary social interactions. They described themselves as having little control whilst feelings of uncertainty engulfed them and their personal privacy and family life were invaded. It is difficult to gauge how typical this population is as the author did not elaborate on the amount of time lost, only that the duration of sickness absence ranged from several months to several years (Roberts-Yates, 2003).

In another study, Ostlund, Cedersund, Hensing and Alexanderson (2004) explored the private lives of a population of men and women on LTSA in Sweden and discovered very different stories about the social support they received. A common picture was that the women, even though on LTSA were still expected to do most of the domestic tasks while many of the men did nothing or only when asked. Both men and women emphasised the importance of receiving support from the family, particularly from one's spouse. Yet many of the women felt unsupported; still carrying the burden of the home. Women described a wide range of experiences, from being content with the situation at home and feeling supported, to being isolated or left alone. In contrast, none of the men complained about their spouses contributions or about not receiving enough socio-emotional support.

**Family Circumstances**

Stability at home appears to be an important variable in determining RTW outcomes from LTSA. Work disabled with stable living arrangements have been found to be more likely than others to RTW after interventions (Lancourt and Kettelhut, 1992). In addition, married people have been shown to have higher RTW rates and shorter episodes of LTSA compared to single people (Hennessey and Muller, 1995; Baldwin, Johnson, and Butler, 1996; Cheadle et al, 1994).

House and colleagues (1986) proposed that social support operates very differently for married and single work disabled. The marital relationship provides a strong support system that has protective effects on mental health. Being married, particularly for men, was associated with increased social integration and the availability of informal social support. For the single, however, social integration is a
critical protective factor. There is evidence to suggest that being out of work and single with a lack of strong social supportive social networks can make individuals particularly at risk for mental health problems (House, Williams and Kessler, 1986).

The evidence, albeit small, suggests that single males may be the most vulnerable population when on LTSA (Baldwin et al, 1996). Kaiser and colleagues (2001) found that single men on LTSA had a significantly higher incidence of psychosocial problems than those in relationships. What is apparent is that studies show that: married people are more likely to RTW; and people with social support and social networks are more likely to RTW. What is important here may be more to do with isolation vs. social interaction.

In contrast to these findings other research has reported that marital status had no effect on RTW rates and duration of LTSA (Marklund, 1995; Hess, Ripley, McKinley and Tewksbury, 2000; Hogg-Johnson and Cole, 1998).

Socio-economic Status
Socio-economic status is known to influence sickness absence (Taylor, 1983; Searle, 1989). Socio-economic status, which is related to occupation, has been shown to be inversely related to health. In general, lower socio-economic status correlates with poor health whereas higher socio-economic status tends to be associated with better health. In terms of work disability, lower income has been found to be significantly related to lower RTW rates and longer episodes of LTSA (Volinn, van Koevering and Loeser, 1991; Reid, Haugh, Hazard and Tripathi, 1997; Tate, 1992).

The Whitehall II study, involving 10,308 UK civil servants ages 35-55 found a strong inverse relationship between socio-economic level (employment grade) and sickness absence (North et al, 1993). Among men and women, the lower the salary the higher was the rate of LTSA. Moreover, men and women who reported greater financial difficulties had nearly 40 per cent higher rate of LTSA.

However not all studies have implicated socio-economic status in RTW outcomes. Goine and colleagues (2004) compared three different outcomes (short term, long term and very long term sick leave) in two paper mill plants that had been given financial support for rehabilitation activities. Spanning two periods, 1989-1993 and 1994-1998, they found that income did not help to predict any of the three outcomes.
3.3.3.4 Medical

Illness/injury

Surprisingly little attention has been paid to the role that injury/illness plays in LTSA, a situation that was usefully highlighted by Allegro and Veerman (1998) who observed that 'the classical organisational-psychological approaches to sickness absence, emphasising concepts such as motivation and satisfaction, fail short in explaining sickness absence fully' (p.129). Most studies have focused on a specific type of injury, typically some form of musculoskeletal condition, and therefore have not been able to isolate the impact of this factor on RTW rates and duration of LTSA. Of the little evidence that is available, it would suggest that ill/injury is a significant factor in RTW outcomes and duration (Krause et al, 2001b).

Kenny (1994) in a study of lost time from workplace injuries of 3041 workers found that the injury/illness variable was a significant predictor of RTW outcomes. The nature of the injury accounted for twenty eight per cent of the variance in the amount of time lost. Interestingly the author had hypothesised that injury variables would account for most of the variance in amount of time lost. However worker characteristics accounted for the majority of the variance, contributing 34 per cent to the total variance pool, with variables including age (older workers), pay (workers receiving lower rates of pay), and no formal referral to and treatment by accredited rehabilitation providers.

Other researchers have similarly reported that the illness/injury (along dimensions such as its severity) is a significant factor in long term sickness absence (Reiso et al, 2003; Whitston and Edwards, 1990; Shrey and Mital, 2000; James, Cunningham, and Dibben, 2002; Cheadle et al, 1994); with those assessing themselves to have less severe illness or injury more often returning to work and in less time (Feuerstein and Thebarge, 1991; Tate, 1992; Ash and Goldstein, 1995; Jang et al, 1998; Sheikh and Mattingly, 1984).

In terms of the type of illness/injury being an obstacle to RTW as age increases, Knutsson and Goine, (1998) looked at the prevalence of LTSA in common male and female occupations. They identified that musculo-skeletal symptoms were the dominating diagnostic group in all age groups. The prevalence of musculo-skeletal disorders increased from age group 16-34 to 35-44 years, but levelled out in higher
age groups. Cardiovascular diseases were more common in higher age groups, while psychiatric diseases were more prevalent in younger age groups. These diagnostic categories stratified by age confirmed different types of barriers to RTW.

The evidence suggests that illness/injury can have a significant influence on RTW outcomes although psychosocial factors appear to have the strongest influence.

3.3.3.5 Individual Working Environment

Job Factors - Physical

Job factors can act as barriers to recovery and RTW from LTSA (Main and Burton, 2000). Physical demands in particular have been shown to predict the length of LTSA and RTW rates (for example, Hazard, Haugh, Reid, Preble, and MacDonald, 1996; Butterfield, Spencer, Redmond, Feldstein and Perrin, 1998; Lund et al, 2006; Hagen, Tambs and Bjerkedal, 2006). A US cohort study of 433 workers' compensation claimants found that duration of LTSA was significantly positively related to the physical demands of the job (Dasinger, et al, 2000). Similarly, in another study which considered which job characteristics may constitute a barrier to RTW, physical job demands were found to be significant with high physical demands accounting for 20 per cent lower RTW rates (Krause et al, 2001b).

On the other hand other studies have found no such effect (for example, Infante-Rivard and Lortie, 1996). Crook and colleagues (1998) investigated determinants of ongoing disability among work disabled and found that physical job demands had no effect. In another study, Gluck and Oleinick (1998) reported from their analysis of 24,094 cases of injured workers with musculoskeletal diagnoses that while the rate of injury was highest for males in blue collar occupations, injured workers in blue-collar occupations returned to work significantly earlier than white-collar workers.

Job Factors - Psychological

More difficult to determine are those job factors that may act as barriers to RTW because of their psychological demands. Few investigations have considered psychological job factors within the RTW research literature but available evidence suggests that perceived high job strain or job stress can be a significant barrier to RTW (Theorell, Harms-Ringdahl, Ahlberg-Hulten and Westin, 1991). Feuerstein and colleagues (2000) prospectively examined the extent to which a set of medical,
occupational psychosocial and individual psychosocial variables would predict clinical outcome and lost time. Poorer outcome at 3 months was predicted by symptom severity, job stress and catastrophising pain coping style. However at 12 months, job stress was no longer a significant predictor while catastrophising pain coping style was. Meanwhile Krause and colleagues (2001b) reported that high psychological job demands accounted for 26 per cent lower RTW rates among the work disabled.

In another study, although workers with acute low back pain were more likely to view their work tasks as physically demanding, many sought health care services because of psychosocial work variables that were perceived to be more overwhelming than the physical demands of the job (Hadler, Carey and Garrett, 1995).

Further insights into the effects of psychological job factors can be drawn from the sickness absence research literature. Within this literature considerable attention has been given to the effect different job roles have on psychological well being. One profession that has attracted particular interest is law enforcement which is well recognised as hazardous, involving personal dangers (Alkus and Padesky, 1983). Police work has been classified as being among the top five most stressful occupations in the world, being extremely demanding both physically and psychologically (Dantzer, 1987). As a consequence, it has been argued that police are more likely than others to be vulnerable to a variety of stress related conditions such as neuroses, coronary heart disease, gastro-intestinal malfunctions and duodenal ulcers (Lobel and Dunkel-Schetter, 1990; Alkus and Padesky, 1983). Furthermore, it has been suggested that this profession experiences a high incidence of sickness absence and medical retirement as further outcomes of severe chronic stress (Brown and Campbell, 1990; Alkus and Padesky, 1983).

Others however contend that professions such as policing are not highly stressful and have reportedly found officers to have more favourable levels of psychological well being when compared to school teachers, tertiary students and community norms (Hart, Wearing and Headey, 1995).

A second line of inquiry has been to consider different job factors within job roles with a view to determining which factors most affect the psychological well being of workers. Broadly speaking, job factors are divided into two categories: organisational, which refers to the context in which people work and includes administration,
communication, supervision and morale; and operational, which refers to the specific job tasks related to the core job, for example in the case of law enforcement it would be the tasks related to actual policing (Hart et al, 1995).

Again police work has been prominent in this research domain. In one study, the researchers challenged the stereotype that policing is inherently stressful because of the dangerous and unsavoury tasks that are part of everyday operational police work. Indeed their findings highlighted that organisational rather than operational experiences were more important in determining an officer's overall level of psychological well being (Hart et al, 1995). Further research that has investigated the possible link between operational activities involving some threat and subsequent trauma and ill-health among police officers has produced equivocal findings. Carlier, Lamberts, and Gersons, (1997) in a Dutch sample of police officers reported that thirty four per cent had some, but all sub threshold, levels of post trauma symptoms. While it is clear that policing involves hazardous work it is less clear whether this is a locus of significant ill health. indeed Hodgins, Creamer, and Bell, (2001) found in their study that none of the operational variables associated with the experience of trauma were related to subsequent ill health.

These outcomes are consistent with an increasing number of studies that have shown it is the organisational rather than the operational duties that are the primary source of psychological distress and psychological ill health among police officers (Brown and Campbell, 1990; Band and Manualle, 1987). Indeed, front line aspects of police work, be it dealing with violent offenders, road trauma or distraught victims, does not appear to be especially distressing for the majority of police officers (Hart, et al, 1995).

Analogous findings are apparent in similar research using teacher and nurse populations. Both jobs are generally considered to be relatively stressful occupations because of the nature of the work, yet organisational rather than operational factors have been implicated more often as having an effect on psychological well being. In the case of teaching, face to face teaching experiences were found to be less relevant in determining levels of psychological distress among teachers compared to organisational factors (Borg, 1990; Hart, 1994); while for nurses, sickness absence was not related to the extreme and noxious operational aspects of the job role (Hackett and Bycio, 1996).
Job Factors – Other

A number of other job factors have been investigated for their influence on LTSA, although the number of studies remains very small. Job control has been found to be associated with prolonged LTSA (Yelin, 1986; Marklund, 1995). Frank and colleagues (1996) found that work disabled were significantly less likely to RTW when they had little or no control on the job. Krause and colleagues (2001b) found that high job control, especially control over work and rest periods, was associated with over 30 per cent higher RTW rates, but only in the sub acute and chronic absence phases. Similar findings were reported by Infante-Rivard and Lortie (1996) who found that low control over work-rest schedule predicted prolonged LTSA. In contrast to these findings, Janssen and colleagues (2003) found no support for their hypothesis that high job demands and low job control would act as barriers to RTW.

Other job factors that have been investigated include: monotonous work, which has been associated with prolonged LTSA and lower RTW rates (Ekberg and Wildhagen, 1996; Kristensen, 1991); and repetitive or inflexible work which has been associated with lower RTW rates (Krause, Lynch, Kaplan, Cohen, Goldberg and Salonen, 1997).

There is growing evidence that job factors can have a significant influence on LTSA and RTW outcomes. Moreover, growing evidence suggests that the job factors that impact most on psychological well being relate to the organisational context in which people work rather than the operational work tasks themselves. This being the case, it may be that organisational rather than operational elements have a more significant influence on long term sickness absence and RTW outcomes.

Swedish research describes motivating factors for job resumption as structure and content of work (seen as meaningful or necessary by the worker), workplace relationships (support and the ability to take a fair share of the workload) and self confidence, as well as actual health status (Gard and Sandberg, 1998).

Occupation

Studies into the relationship between occupation and prolonged worker disability and RTW outcomes have produced mixed results. In one study, construction workers were found to have significantly longer episodes of LTSA (Hogg-Johnson, Frank and Rael, 1994); however three other studies similarly investigating this relationship found no relationship between the construction occupation and LTSA (Volinn et al 1991;
Abenhaim et al, 1995; Oleinick et al, 1996). In an extensive investigation into the relationship between occupation and RTW rates, Gluck and Oleinick (1998) found that blue-collar occupations return to work earlier from LTSA than most injured white-collar workers. Indeed, the highest risk group was driver – sales. The authors concluded that while risk of injury was related to occupation, the same occupational factors did not operate as a barrier to RTW. Similar findings were reported by Abenhaim and colleagues (1998) who found that drivers and nurses were more likely to experience prolonged disability. Conversely Rossignol and colleagues (1988) found no relationship between occupation and duration of LTSA. Meanwhile, in a further study, workers from the custodial and food service/catering sectors in particular were found to be less likely to RTW compared to those from other sectors (Voaklander et al, 1995).

**Job Satisfaction**

The relationship between job dissatisfaction and RTW outcomes from LTSA is unclear. Some evidence suggests that job dissatisfaction is a barrier to RTW such that when an ill/injured worker is not happy in their job there is less likelihood of a successful RTW (Berquist-Ullman and Larsson, 1977; Frank et al, 1996). Perceived features of work generally associated with higher rates of symptoms and long periods of absence are: job demands; job content; job control; lack of support from supervisor/colleagues; career issues; technology issues; organisational/management issues, pay rates and benefits; sickness policy; management style and organisational issues (Main and Spanswick, 2000).

On the other hand, much of the recent evidence indicates that job dissatisfaction may be more relevant to short rather than long term episodes. The Whitehall II study investigated the relationship between job satisfaction and rates of spells of absence of different duration. Job satisfaction was more strongly associated with spells of 1-2 days than with longer spells of sickness absence. The authors attempted to remove that part of the association that may be due to health status by adjusting for the self reported health. For both men and women, the association between job satisfaction and LTSA was greatly attenuated, resulting in minimum association between job satisfaction and LTSA. In contrast, the strong association between job satisfaction and spells of 1-2 days remained after adjusting for self reported health (North, 1993).

Meanwhile, Brines and colleagues (1999) in their study of 182 injured workers found
no evidence in their sample that those on LTSA disliked their jobs or that job dissatisfaction was in any way a barrier to RTW. In general, most responses were skewed in the direction of very satisfied. Similarly Kenny (1998) in their study of 407 injured workers reported that the majority (82.7%) stated that they had been either happy or very happy with the type of work they had been doing, the company they worked for (72.9%), and the pay they received (67.3%). Likewise, Krause and colleagues (2001b) found that job satisfaction was unrelated to duration of LTSA.

**Job Grade**

Lower graded jobs or those with less responsibility tend to be associated with lower RTW rates while more highly graded jobs or those with more responsibility are associated with higher RTW rates. Tate (1992) found that senior workers occupying professional and managerial positions were more likely to RTW than those in low seniority jobs (Tate, 1992). Others have similarly found that work disabled in low seniority jobs had prolonged episodes of LTSA (Dasinger et al, 2000; Krause et al, 2001b).

Goine and colleagues (2004) compared three different outcomes (short term, long term and very long term sick leave) in two paper mill plants that had been given financial support for rehabilitation activities. Spanning two periods, 1989-1993 and 1994-1998, they found that for blue collar workers, relative risk was significantly higher than for white collar workers, for two of the outcomes, long term and very long term sick leave.

Bruyns and colleagues (2003) found that white collar workers had higher rates of RTW compared with those in blue collar employment (Bruyns, Jaquet, Schreuders, Kalmijn, Kuypers and Hovius, 2003). Similarly, MacKenzie and colleagues (1998) found that in their prospective cohort of 312 workers, those in white collar jobs that were not physically demanding had higher rates of RTW than those in blue collar job roles.

Conversely, Galizzi and Boden, (1996) reported that managerial and professional workers tended to stay off work longer on average than blue collar workers. Meanwhile, Feuerstein and colleagues (2000) found no relationship between job grade and duration of LTSA.
One possible explanation for these divergent results may relate to issues of reporting and job role flexibility. It has been suggested that less ill health may not be the only reason for the reported lower levels of sickness absence in higher graded jobs. Rather, it has been proposed that other higher levels of organisational commitment in senior staff and the flexibility to work from home may lead to an under-reporting of sickness absence.

The findings for this variable are mixed, however on balance the evidence suggests there may be a significant negative gradient between LTSA and job grade.

Co worker support
Co-workers' perceptions have been found to be important in the RTW process, with negative attitudes acting as a barrier to successful RTW (Kenny, 1995a). The main force of the negative attitudes has been found to relate to colleagues' resentment either because: they were temporarily assigned tasks normally done by the injured worker; or the injured worker was given 'light' duties or reduced hours, both of which were seen as 'special privileges' (Baril et al., 2003; Kenny, 1995a). In contrast, Krause and colleagues (2001b) found that co worker support was not associated with the duration of LTSA.

Shift work
There has always been a need for some people to work whilst the rest of the people sleep; nurses, emergency services and so on. It has been estimated that eight to fifteen per cent of the economically active population work nights (Carpentier and Cazamian, 1977). It is reasonable to assume that most people dislike irregular and antisocial working hours. However, people balance the pros and cons differently. Some may enjoy the tangible benefits, particularly time off when other people are working. Others, unable to adapt to the demands of shift work (physiological/social) may opt out and seek alternative employment in a relatively short time. Most will accept it, at least for a time.

Shift work has been identified as a common occupational stressor as well as affecting blood pressure, metabolic rate, blood sugar levels, mental efficiency and work motivation, sleep patterns and family and social life (Selye, 1976; Hurrell and Kroes, 1975). Notwithstanding the apparent impact shift work can have on health, there is
evidence that people do habituate to it (Seyle, 1976). Goine and colleagues (2004) compared three different outcomes (short term, long term and very long term sick leave) in two paper mill plants that had been given financial support for rehabilitation activities. They reported that shift work did not help to predict any of the three outcomes. Moreover, Warr and Yearta, (1995) reported inconclusive differences between day work and shift work.

There is scant evidence on the impact shift work might have as a barrier to RTW from LTSA. Most of the research on this factor has been concerned with the front end, looking at the effects on peoples' health at work. However, based on the available evidence it seems reasonable to suggest that if shift work is a stressor for people in work, then for those looking to RTW, it could act as a potential barrier to RTW. This may be especially true for those on LTSA who have adapted to a life of not going to work.

3.3.4 Summary of the Empirical Literature

The international experience especially over the last two decades has shown that there are a number of elements which are clearly associated with successful RTW outcomes from LTSA. These include: early intervention; concurrent attention to medical, social, and occupational aspects of rehabilitation; workplace-focused interventions; an open and communicative corporate culture; strong managerial commitment and support for the RTW process; and the joint involvement of all stakeholders in the RTW process.

The studies reviewed here confirm that, although the relationship between specific variables and RTW rates vary across samples, there are three domains of factors that can represent barriers to RTW from LTSA: societal; organisational; and individual. The following have been identified as key factors on LTSA and RTW outcomes:

3.3.4.1 Societal Domain Factors

- waiting times for occupational rehabilitation interventions (excessive waiting time especially for medical referrals prolong LTSA)
- early intervention and focused RTW interventions (delayed referral associated with prolonged work disability)
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3.3.4.2 Organisational Domain Factors

- workplace based RTW strategies with early involvement of all stakeholders (union, supervisor, HR)
- in house disability management policies and interventions (need to directly affirm human resource management principles where early RTW is seen as a guiding corporate principle, with senior management commitment)
- workplace adaptations and light / recuperative duties (lack of suitable duties in the workplace associated with prolonged work disability)
- management practices and workplace attitudes (lack of support associated with prolonged work disability)
- size of employer (smaller employers have lower RTW rates)
- returning to pre injury employer increases likelihood of successful RTW

3.3.4.3 Individual Domain Factors

- illness and injury is responded to regardless of cause and the issue of liability
- worker motivation and psychological state (anxiety/depression, low work motivation associated with prolonged absence)
- litigation (ongoing legal action associated with prolonged work disability)
- sex (mixed results)
- age (older ages associated with lower RTW rates)
- education and skills (low education and skill levels associated with lower RTW rates)
- sickness absence history (history of LTSA episodes associated with lower RTW rates and longer episodes of LTSA)
- job tenure (< six months tenure associated with longer duration of LTSA episodes)
- locus of control (external associated with lower RTW rates)
- length and stages of absence (longer the person is away from work the lower the RTW rates)
- social support from family and friends (lack of support associated with lower RTW rates)
- family circumstances (mixed findings, single male appears most vulnerable)
• socioeconomic status (lower SES associated with lower RTW rates)
• type of illness/injury
• psychological symptomology (associated with lower RTW rates)
• job factors (positive relationship between physical job demands and duration of LTSA episode, growing evidence that organisational rather than operational duties may be the primary source of considerable psychological ill health among workers - mixed evidence for relationship between lack of job control and lower RTW rates)
• job satisfaction (dissatisfaction associated with lower RTW rates)
• job grade (lower job grades associated with lower RTW rates and longer duration of LTSA episodes)
• shift work (mixed findings).

Over recent years there has been considerable development and experimentation in the area of occupational rehabilitation and RTW initiatives. Through this it has been recognised that long term work disability represents not simply an economic cost but one which carries with it huge social consequences both to the worker, their family and the broader community.

This review reflects the enormity of the issue of trying to determine what are the factors associated with RTW from LTSA for the work disabled; and what if any relationship is there between different domain factors? For many factors the results are mixed, while for others the relationship is more straightforward. With respect to age for example, while not universally shown to be associated with lower RTW rates, there is a weight of evidence that supports this relationship. Conversely, the effect of different occupational rehabilitation interventions remains less clear. There is a clear and pressing need for research in this area to try and establish a unifying framework to conceptually account for the domain factors and their co existence.

3.4 LIMITATIONS OF THE EMPIRICAL LITERATURE

There were a number of limitations in the research literature reviewed here. Of the many studies investigating the effects of income replacement on patient recovery from illness/injury, the most significant limitation is the lack of consistent standard criteria between studies, in defining and describing successful patient outcomes. The use of various outcome measures such as pain reports, clinical symptoms, objective clinical
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observations, strength, range of motion, fatigue, psychological disturbances, durations of work absence and successful RTW, limit an analytical comparison of studies and their outcomes.

A lack of a common definition for long term sickness absence was particularly evident. With respect to the temporal element, the phrase 'long term' was not very prominent, perhaps because much of the absence data that is used for research purposes is drawn from existing organisational records, and it is estimated that nearly half the organisations in, for example, the UK do not differentiate between short and long term in their absence records (CBI, 2001). When the term was used, there was a huge variability in what constituted 'long term'. At one extreme, 'long term' was taken to mean absence episodes which had lasted (or were likely to last) 12 months or more (Dench, Meager, and Morris, 1996). At the other extreme, others deemed absence episodes in excess of seven days to be 'long term' (North, Syme, Feeney, Head, Shipley, and Marmot, 1993). Still others opted for twenty eight or more days to define 'long term' (Knutsson, and Goine, 1998). A further definitional issue was the lack of any consistent diagnostic criteria and labelling against which to compare diagnoses (Cheadle et al, 1994). Some studies used the International Classification of Diseases-10 system (ICD-10, World Health Organisation, 2003) which provides clear descriptions of diagnoses (Shaw et al, 2003). Others have relied on the alternate classification system of the American National Standards Institute (ANSI) which is less sensitive and specific than the ICD-10 system (Gluck and Oleinick, 1998). Still others have defined illness/injury according to perceived subjective disability (Katz et al, 1996). Standardised definitions and use of clear international diagnostic categories using ICD – 10 criteria would enhance future research.

Comparative analysis of the literature was also difficult due to limitations of the methodologies used. Many studies used a retrospective study design (for example, Bonzani et al, 1997; Braun et al, 1999; Klekamp et al, 1998; Greenough and Fraser, 1989). Problems associated with this form of data analysis include questions of accuracy of data recorded and data abstracted, biases in the selection of case material and problems with determination of condition and severity through retrospective review of medical notes that may not always be complete or detailed (Jarvis, Phillips and Danielson, 1997). Follow-up data cannot be of any value unless reasons for poor RTW outcomes (ongoing disability or prolonged durations of sickness absences) can be substantiated (Krause et al, 2001a).
Various methodological issues can produce conflicting findings between similar studies and can limit the ability to generalise results from the studies to other patient groups. This includes small sample sizes (Baril et al. 2003; Kenny, 1995d; Dixon et al., 1999; Guest and Drummond, 1992; Hunter et al., 1998; Parascandola, 1993), selection bias (Filan, 1996; Hunter et al., 1998; Lancourt and Kettelhut, 1992; McIntosh et al., 2000), lack of objective baseline measures (Greenough and Fraser, 1989) and lack of concurrent external control groups (Krause et al., 1998).

Studies showing strong associations when performing univariate statistical analysis, found the relationships to be either weaker or not statistically significant when a multivariate analysis was calculated to adjust for other possible confounding variables (Feuerstein et al., 1994). Some authors offered suggestions regarding other factors unrelated to physical functional status that may affect return to work, but offered no supporting evidence, while others failed to even consider the effects of moderating factors (Gallagher et al., 1995).

The findings of studies using non-validated instruments to measure patient outcomes (Dixon et al., 1999; Monroe et al., 1999) may not provide data that truly represents the phenomena being investigated. For example, the use of self-report instruments regarding ill/injured workers' perception of their quality of life, perceived disability or pain levels before and after injury may be valid in research settings, but may be compromised in situations where patient responses are directly linked to financial benefits (Katz et al., 1996). Likewise, patients responding to survey questions may also provide the answers that they believe are socially desirable or what the researcher wants to hear (Breakwell, Hammond and Fife-Schaw, 2000).

Far too few studies reported on the nature and duration of interventions with workers on LTSA included in the study. Consequently it is difficult to identify which characteristics of the ill/injured worker's RTW plan either contributed to or detracted from successful recovery and RTW outcomes. For example, there were considerable differences in the design of the transitional work programmes, which range from 'light' duties, to modified work hours and workstation modifications. Typically, modified work is part of a broader RTW scheme. In most studies reviewed they did not separately assess the various components of the transitional work programme or specify which interventions were used (Goine et al., 2004; Krause et al., 1998). It would be helpful to have these specifics in order to determine which are most effective.
Finally, much of the data used was quantitative. While many factors were identified as barriers to RTW, their full and adequate investigation would seem to warrant supplementation with qualitative data, especially case study materials (Kenny, 1995b; Cunningham and James, 2000). A number of researchers have advocated the adoption of a holistic approach that allows for the gathering of qualitative data, attention to process, context sensitivity, empathic objectivity and inductive analysis (Krause et al, 2001a/b).
4.0 CHAPTER 4 LTSA - MODELS AND THEORIES

This chapter describes theoretical models and concepts that have been proposed in the literature to account for LTSA and RTW outcomes. In addition, various psychological processes that may play a role in LTSA and RTW outcomes such as cognitive appraisal are discussed. Following on, the psychological processes that this thesis considers to be particularly relevant to the experience of LTSA from the perspective of the work disabled are presented. The chapter concludes by developing the aims of the present research.

4.1 INTRODUCTION

This thesis adopts the perspective of the long term sick and it is argued that through this lens the work disability experience is a developmental phenomenon that is best conceptualised systemically, comprising three co-existing domains; societal, organisational, and individual, each populated with factors perceived by the long term sick to be associated with work disability and their effects, manifested in sickness absence duration and RTW outcome. Within this conceptual framework it is apparent that there are a number of risk factors or predispositions associated with prolonged LTSA; for example, age. However, simply listing such variables tells little about the process of RTW or how for example individual domain factors might interact with organisational and societal domain factors. The focus of this thesis is to provide a conceptual framework that identifies the barriers and enablers to RTW from LTSA from the perspective of the long term sick and the processes involved in work disability and RTW in order to guide what needs to occur for the long term sick to RTW.

Work disability and the RTW process have been studied extensively in the medical rehabilitation literature, primarily under the heading of occupational rehabilitation. Within this there has been a strong bias towards empiricism at the expense of theory development (Siegert and Taylor, 2004; Cottone and Emener, 1990). This has resulted in a large and often conflicting body of empirical evidence regarding the primary factors associated with prolonged work disability, while the phenomenon of RTW from LTSA remains poorly understood and lacking conceptual sophistication (Shaw et al, 2002; Franche and Krause, 2002). Few comprehensive theories of the work disability and RTW have been presented. In fact, the RTW field has been variously described as having no theoretical base (Krantzler, 1970), as having some
developmental beginnings of a theoretical base (Maki, 1986) or as having emerged as an atheoretical or quasi-theoretical professional field (Emener and Cottone, 1989; Kenny, 1996b). There is broad agreement that the entire RTW field is under theorised (Krause et al, 2001a).

In the absence of theoretical models that apply specifically to RTW from LTSA (Janssen et al, 2003), those that have been developed to account for occupational rehabilitation are reviewed as a starting point. In addition, as the present thesis is particularly interested in understanding work disability and RTW from the perspective of the long term sick, various psychological processes that may play a role in LTSA and RTW such as cognitive appraisal are discussed.

4.2 THEORETICAL MODELS

It has been suggested that there are now two clearly defined theoretical positions in occupational rehabilitation (Cottone and Emener, 1990). The first has been historically associated with theories of illness and injury which are dominated by the psychomedical model. By default, traditional rehabilitation practices have been underpinned by this same model. This paradigm portrays rehabilitation as an individual process in which the individual with disabilities and the conditions that disable them are the focus. Key elements are to eradicate disease, cure the individual, solve the individual's problems and along with the rehabilitation team, help the individual to solve problems. The first three of these elements come under the parameters of the medical model while the fourth one represents the domain of the helping professions, such as psychology and counselling (Anderson, 1975).

This position has received significant criticism over the years, primarily because it is seen to be lacking a wholistic approach to rehabilitation, ignoring the context in which the individual exists, which includes the social, organisational, and political environments (Kearns, 1997). Stubbins (1984) observed this and called for a move away from what he termed the 'clinical attitude' in rehabilitation towards a more sociological perspective. Stubbins (1984) believed that rehabilitation needed to be inclusive of social systems factors and concluded that the "unit of study should be considered the system" (p.379) rather than the individual.

The second theoretical position is a systemic theory of occupational rehabilitation
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(Cottone, 1987). Systems theory is basically concerned with problems of relationships, of structures, and of interdependence, rather than with the constant attributes of object (Katz and Kahn, 1966). Webster defines a system as a "regularly interacting or interdependent group of items forming a unified whole," which "is in, or tends to be in, equilibrium". One of the primary strengths of this approach is that a system's attributes, which are the interdependence and interlinking of various subsystems within a given system, and the tendency toward attaining a balance or equilibrium, forces one to think in terms of multiple causation in contrast to thinking in single-cause terms. Sociological analyses of injury occurrence and outcomes have shifted the focus from the individual worker (in isolation) to one that considers the worker in relation to the workplace and the social environment in which they operate.

To contrast these two approaches, whereas the psychomedical paradigm focuses on the individual and their medical symptoms, the systemic paradigm focuses on relations between people, defined primarily by informal and context related evidence. Whereas the psychomedical paradigm directs professionals to analyse individuals (their conditions), the systemic paradigm directs professionals to analyse relationships (whether a relationship is positive or negative, or any other description of relationships). Whereas the psychomedical paradigm focuses on an individual's functionality, the systemic paradigm focuses on social fit.

4.2.1 Systemic Theories of Occupational Rehabilitation

Over the last twenty five years, there have been a number of attempts to place the process of occupational rehabilitation into a systems theory framework (e.g. Maki, McCracken, Pape and Schofield, 1978; Cottone, 1987). These are now reviewed.

4.2.1.1 Maki and Colleagues' (1978) Theoretical Model of Vocational Rehabilitation

This model of vocational rehabilitation builds on the work of Dawis (1967) and presents a synthesis of accepted theoretical components into an autonomous model for vocational rehabilitation. At the centre resides the philosophy that all people have the right to work and contribute to the society. It emphasises the overarching treatment goal of developing a disabled person's strengths in order that they can move from a state of dependence to one of independent functioning. The model offers a series of tenets and constructs related to vocational rehabilitation practice.
For example, a principle tenet is to facilitate the maximum vocational development and adjustment of a disabled person and in so doing, it is assumed that this adjustment will promote similar benefits in other life aspects (Maki, McCracken, Pape and Schofield, 1978).

The method for achieving this is primarily through a problem solving approach which is used to help the person identify problems which are barriers to vocational adjustment, explore possible solutions, decide on the most appropriate way forward and evaluate the outcome.

The authors contrast their model with the traditional medical model by drawing a distinction between the latter’s focus on client pathology and diagnostic labels which is seen as limiting for the individual, and the former’s focus on the assets of the individual and how they can be utilised to achieve vocational success. This contrast emphasises the human benefits that can be derived from moving away from the reductionistic medical model to one that reflects the broader societal orientation to vocational rehabilitation.

The strength of this model lies in its articulation of tenets, which allows for the construction of research hypotheses to validate, extend and further define a systematic model for rehabilitation, and constructs, which provide operational procedures consistent with the underlying tenets. It also provides a framework from which professional decisions can be made.

While the model provides a basis for pragmatic rehabilitation practices, and the development of innovative interventions and programmes, it makes no attempt to explain the psychological dimension of vocational rehabilitation. No theoretical proposition is offered to account for the process of vocational rehabilitation, which in the current sense is equivalent to the work disability and RTW process. Rather, an all inclusive mechanism of problem solving is proposed as the method for exploring issues with the work disabled as they arise. The model, while claiming to be systemic, does not make any mention of relationships between disabled individuals and second parties, such as employers, social security, medical personnel and the like. Moreover, the model does not account for the role of mechanisms such as communication in the process of rehabilitation. In summary, this model is concerned with how vocational rehabilitation should be practiced and provides a rationale for
this. However, it does not have sufficient explanatory power to account for the RTW predictors discussed earlier nor does it offer a theoretical framework in which to consider variations in RTW behaviours.

4.2.1.2 Cottone’s (1987) Systemic Theory of Vocational Rehabilitation

While the vocational rehabilitation (VR) theory of Maki and colleagues fails to provide a theoretical framework for the VR process, Cottone’s (1987) systemic theory of VR does. Founded on social systems theory, this theory develops the ideas of Bateson (1972) and Parsons (1951, 1964) who applied systems concepts to socio behavioural systems and placed interpersonal communications and relationships at the heart of their theory. From this communications model of social systems Cottone (1987) derived eight basic systemic tenets: a system is a set of elements, linked by relationship; relationship is the defining unit of systems theory and a relationship is defined by all communication between two elements; social systems do not occur in isolation, they are linked to other systems; systems are self preserving and homeostatic, meaning they tend toward equilibrium; if the balance of the system is affected by external influences, a homeostatic mechanism is activated and if this is unsuccessful a new state of balance is set; systems act in patterns according to social rules; social rules may be explicit (formal or written) or implicit (understood) and provide direction; communication or information is the ‘food’ of social systems and it occurs in two forms, digital (which is formal or technical), and analogic (informal, non verbal or contextual); digital is content related whereas analogic defines the nature of the relationship; and all social systems are open.

Cottone (1987) adopted these tenets and applied them to occupational rehabilitation, explaining that ‘rehabilitation is a social activity ..... whose goals are attained through well defined relationships operating within larger system structures’ (p.170). For this reason, Cottone (1987) saw it as erroneous to focus on the individual and argued that the unit of measurement must be the relationship. Cottone (1987) developed a set of basic propositions for his systemic theory of rehabilitation which include: clients and their systems of influence are linked to rehabilitation systems by elements of those rehabilitation systems (for example, a counsellor); client and rehabilitation systems are purposeful and homeostatic; if the goals of both systems are consistent they will coalesce and attain these common goals; if the goals of the two systems are conflicting, role strain will develop in the less powerful of the two systems, which in turn will activate the system’s homeostatic mechanism (in the
state system this equates to a negative feedback loop, and in the client’s system this may take several forms including the intervention of the family or an exacerbation of symptoms); the homeostatic process takes place in a triadic relationship structure (for example, counsellor-client-claims adjustor); given the triadic structure of the homeostatic process, outcomes are limited primarily to either successful rehabilitation (work placement) or the client becoming the scapegoat (Cottone, 1986); the homeostatic mechanism can be activated at any time in the rehabilitation process; the critical communications in these homeostatic processes are not the formal, ‘digital’ communications but the analogic communications (such as the telephone or personal contact between the rehabilitation counsellor and the client); a triadic relationship structure is also evident during the placement process (client-counsellor-employer).

The model accounts for failures in rehabilitation in one of three ways. Firstly, the homeostatic mechanism is not engaged when it should be or it is over engaged, such that small differences are exaggerated to a point whereby the system can no longer accommodate the differences. Secondly, the client system’s goals are inconsistent with employment of the client and are unaffected by the rehabilitation system. Thirdly, systemic influences on the client are not superseded by the present influence of the rehabilitation system (Cottone, 1987).

Cottone’s (1987) model states that if a person’s concerns are purely medical, then the body can be viewed as a system interacting with a larger system and the treating doctor becomes the linking component until there is a resolution. With psychosocial concerns however, Cottone stresses that the client’s system must be identified and then targeted with rehabilitation interventions in order to counter the system’s influence on the client. Cottone (1987) suggests that psychosocial issues are more difficult to resolve than those which remain purely physical, not least because they so often blur the medical picture. In these situations, a family therapy approach is suggested given that this school of theorists and practitioners draw heavily on systems theory.

Cottone’s (1987) theory makes a major contribution to the field of rehabilitation and returning people to work because of the way it shifts the focus away from the individual to the relationships and systems which the person inhabits. In so doing it directs attention to the influence that different systems may have and the various
forms that the homeostatic mechanism may take. This model is much broader in its ability to relate to RTW outcomes from LTSA and much can be taken from it in developing hypotheses about the significant influences in the RTW process. Yet, it is limited in its applicability in the UK where the process of LTSA and RTW outcome is played out in an environment which is a fairly chaotic, non-systematic and unlegislated one. Cottone (1987) acknowledged that vocational rehabilitation operates according to laws promulgated by the societal system and outside of such a society where such laws do not exist, neither would the foundations of the VR system. Cottone's (1987) model is based on the proposition that a well-defined rehabilitation system exists and is supported by state-federal laws and is therefore of limited relevance to the UK case, however there are important concepts that may prove to be highly relevant to the process of LTSA and RTW outcome in the UK. In particular, the emphasis on a systemic focus implies a methodology that takes account of the context of behaviour, which can easily be overlooked when the focus is on the individual. The central role that this systemic model gives to communication and in particular the focus on interpersonal communications and relationships in the VR process provides a strong rationale for studying the nature of relationships in rehabilitation in order to reveal the nature of their influence within that system. In the UK case this translates to understanding the central relationships for the work disabled, such as with their employers, in order to reveal the nature of their influence on work disability and RTW.

4.2.1.3 Kenny's (1995a; 1996b) Systemic Model of Occupational Rehabilitation

Building on the systemic model of Cottone (1987), Kenny (1995a; 1996b) sought to develop a systemic model of occupational rehabilitation based on the observation of communication patterns which involved shifting dyadic and triadic coalitions among the various stakeholders within the Australian Government run vocational rehabilitation system. Like Cottone (1987), Kenny (1995a; 1996b) viewed the relationship dynamics occurring between the ill/injured worker and the system they inhabit as the foci of the occupational rehabilitation process. In particular, Kenny (1995a) hypothesised a central role for the employer-injured worker relationship in influencing the outcome of injury.

Drawing on the empirical findings from a series of qualitative interviews with employers and injured workers to explore the employer-injured worker relationship and elicit factors they perceived acted as barriers to RTW, Kenny (1995a) found that
the major theme to emerge was that stakeholders created and recreated numerous alliances with each other throughout the course of occupational rehabilitation in response to dissatisfaction and shifting power struggles amongst themselves. Having observed these patterns among ill/injured workers, Kenny (1995a) contended that the two accepted dimensions along which injury and RTW outcome could be categorised; 'victim blaming' (medical model advocates), and 'system blaming' (organisational sociological advocates), did not adequately attend to the relations between workers and systems nor could they account for the RTW outcomes of occupational rehabilitation. Kenny (1996b; 1995a) turned to the systemic theories of Bowen (1966; 1978) and Bateson (1979), and drew a parallel between the use of alliances and a process called triangulation (Bowen, 1966; 1978) and determined that this could be central to understanding the relationships in the RTW process.

Bowen (1966; 1978) emphasised the importance of the role played by triangles in family interactions. This process, called triangulation, is said to occur in all social groups. In periods of calm, the triangle is made up of a comfortable twosome, to the exclusion of a third party. The twosome works to preserve the relationship and togetherness. However, Bowen argued that in periods of strain and stress, the two person system will form a three person system, as one of the twosome 'triangles in' a third person. Typically, it is the one who feels most uncomfortable or vulnerable who triangles in the third party in order to relieve tension and restore equilibrium to the relationship. Once drawn in, the third person may form his or her own set of alliances, thus creating a shift in tensions and power bases. Bowen stated that triangulation is not static and action may not remain localised within the original triangle. Rather, more and more people may be triangulated in from the outside as the original twosome struggle to restore calm. Furthermore, Bowen reasoned that during periods of disequilibrium, when strain is apparent, triangles will become more rigid.

In the context of the occupational rehabilitation process, just as Bowen postulated the importance of the family as a system, so the employer and worker form a dyad and with other stakeholders, triads, which become shifting coalitions. Kenny (1995a) observed that one of the fundamental differences between employers and workers was their contrasting perspectives during the post injury period. Employees were largely focused on issues related to care, concern, respect and justice while employers were largely occupied with concerns for productivity and controlling costs.
These represent very different agendas and in practice Kenny suggested they would be stress producing for the employer-worker dyad. According to Bowen’s model, this stress (brought about by the now imbalanced power in the relationship which resulted from differing agendas) would induce both parties to seek out ‘allies’ in order to bolster their position and restore the balance of power (equilibrium). Kenny (1995a; 1996b) proposed that the triangulating process would spread to other stakeholders, and may not be limited to the original system. Moreover, during this period of imbalance, communication patterns would become more rigid, and could eventually spiral towards very limited choices for all stakeholder parties.

Kenny (1995a) postulated that the inflexibility that can become the defining feature of the employer-worker dyad may be explained by Bales’ (1969) theory of what occurs in groups as disagreements escalate. Bales (1969) suggested that a chain reaction of emotionality can set in that ignores logic and rational decision making. On the employer’s part, Kenny suggested that this may explain the apparently unexplainable rigidity demonstrated by some employers to accommodate their workers and their functional limitations.

Kenny’s attempt to place the process of occupational rehabilitation into a systems theory framework is relevant as it is practised in Australia. Workers and their employers exist within a system that is heavily regulated with primary and secondary legislation, and the process of occupational rehabilitation can become fraught with frequent litigation, dysfunctional communication patterns, emotional tension and unacceptable outcomes. Kenny’s (1995a; 1996b) application of the principles of systems theory offers a strong rationale for how such eventualities occur and it also provides insight into where emphasis may be best placed to try and avert such unsatisfactory outcomes.

However, the model is not directly applicable to occupational rehabilitation as it is practised in the UK. There is no premium incentive scheme for employers, nor any statute law that requires employers to provide occupational rehabilitation to injured or ill workers on LTSA. There is the Disability Discrimination Act (DDA) that came into full effect on October 1, 2004. This law has broad implications, one of which relates to the treatment of employees who acquire a disability during the course of their employment. In order to fall within its protective scope, the DDA requires that the disability has a ‘substantial effect on a person’s ability to carry out day to day
activities' and that it has lasted at least 12 months. The placing of a time limit on the period over which the disability must last sets this act apart from others and at present its implications are rather unclear.

At present in the UK, when a person is on long term sickness absence there is no automatic referral to a third party for rehabilitation. Rather, the matter tends to be dealt with initially within the employee-employer dyad. It is these experiences, within this cultural context, that the present research seeks to explore and describe in order to increase understanding of how such relationships influence work disability and RTW from the perspective of the work disabled.

4.2.1.4 Summary

The traditional reductionistic medical model of vocational rehabilitation appears very limited in what it can offer the work disability and RTW process both in explaining variation in RTW behaviour and providing interventions to achieve successful RTW outcomes. In contrast, the systemic theories of vocational rehabilitation provide compelling rationale for the significance of viewing the VR process systemically and within that, the central role that relationships play in RTW outcomes. These theories however have all been developed to explain the VR process within systems that are heavily regulated and frequently adversarial, a combination that would seem to lend itself to the need for all stakeholders to bolster their positions. For the UK case, the systemic paradigm offers a contextual framework in which to consider the work disability experience and RTW process, and one where the nature of the influence of relationships needs clarity.

4.2.2 Other Theoretical Candidates

This section considers other models that have been proposed to explain particular aspects of the disablement and RTW process. It then discusses a number of psychological concepts that are of interest for their potential explanatory power in understanding work disability and RTW from the perspective of the long term sick.

4.2.2.1 Bruyere and Shrey’s (1991) Occupational Bonding Model

Bruyere and Shrey's (1991) model of 'occupational bonding' focuses specifically on the importance of the employer-employee relationship in disability and RTW outcomes. 'Occupational bonding' is defined as the cohesive and comfortable
relationship which occurs between employee and employer arising from the matrix of bonds developed with co-workers, the nature of the work processes themselves, and from the overall work environment (Bruyere and Shrey, 1991). The authors argue that 'occupational bonding' is pivotal to successful RTW outcomes and emphasise the importance of the worker remaining connected to their employer.

The authors suggest that the occupational bond is a mutually beneficial relationship that is strengthened, like all relationships, through nurturing and sharing in order to build mutual trust, confidence and understanding (for example, when the employer provides support to the worker, and the worker responds positively to the employer's intentions). And, as in all relationships, the strength of the bond is thought to fluctuate with changing circumstances. There may be periods of scepticism and insecurity among workers, which parallel periods of concern and uncertainty among employers. To sustain the occupational bond, Bruyere and Shrey (1991) state that equilibrium must maintained between the goals and expectations of the worker and the goals and expectations of the employer.

Incompatible goals and expectations can put the occupational bond under strain and may even lead to it being completely broken, just at a time when it is needed most. Acrimonious employee-employer relationships often emerge from feelings of mutual mistrust and whatever remains of the occupational bond may be irreparably damaged. This occurs all too often, and a primary cause, the authors suggest, can be when workers fall ill or get injured and go on long term sickness absence which results in lengthy work disruptions.

At the point of the initial work disruption, when the injured worker goes off sick, Bruyere and Shrey (1991) suggest that the employee-employer bond does not fracture, it simply ceases. Employer responsibility for the injured worker is often outsourced to an external service provider and management withdraws from the process. Over time as the work disruption continues, the relationship can sour, often to a point where the occupational bond becomes fractured or even severed. The risk at this point is that the worker will develop a bond with a third party be it a treatment provider, solicitor, the benefits offered, the rhythm of incapacity or the pulse of an alternative lifestyle. Once this happens it is very difficult to re-establish the occupational bond and achieve a successful RTW.
To avoid this, Bruyere and Shrey (1991) argue that the concept of 'occupational bonding' should become a fundamental principle for guiding the interventions in injury management and RTW strategies. In other words, RTW strategies must be aimed at ensuring that the workers see themselves as valued employees who remain 'bonded' or attached to the workplace.

The concept of 'occupational bonding' parallels many aspects of Kenny's application of the notion of triangulation within the employer-employee system. In particular, when strain appears within the employer-employee dyad, a third party is sought to fill a void that is no longer being accommodated by the employer. Both models emphasise the presence of third parties, typically rehabilitation specialists, and the ensuing disconnect that can follow in the employer-employee system. As with Kenny's model (1995a), the model of 'occupational bonding' was developed in a system where there is a prevailing rehabilitation system and the typical experience is of referral to a third party.

For the UK case, the strength of the concept of 'occupational bonding' is not the idea of triangulation of third parties into the employer-employee dyad in times of stress in order to strengthen ones position, but on the importance of the employer-employee dyad maintaining a strong connection and the consequences of relationship bonds being broken on RTW outcome. In this sense it offers potential to explain part of the enormous variability that is observed in RTW outcomes following LTSA. Internationally, while about eighty per cent of workers return to work without major rehabilitation interventions, the remainder do not. For employees who have positive rehabilitation experiences and are satisfied at their particular workplace there can be many physical, psychological, social and environmental reasons why they would prefer to return to work. However, for some work disabled there is ambivalence about the workplace or about their own motivation for work, part of which may be to do with 'occupational bonding'. There is a need to progress understanding of the influence of the employer-employee relationship on work disability and RTW from the perspective of the work disabled in the UK.

4.2.2.2 Pransky and colleagues (2004) Communications Approach

One aspect of the relationships that exist within the disability management process that has received particular focus has been interpersonal communication. Drawing on systems theory, Pransky and colleagues (2004) sought to develop a greater
understanding of communication and its relevance to RTW outcomes in order to develop a more robust model of communication among stakeholder systems within the RTW process. The authors analysed various medical and allied models (e.g. physical rehabilitation model) of disability management for the effect of communication and associated transactions at the interpersonal level, with a focus on the worker perspective within the larger social system. These authors found that a common theme among all models was the use of a traditional approach to communication which was described as authoritative, impersonal and unidirectional. In all cases there was an implicit assumption that medical outcomes were highly predictable and unaffected by any other variables such as those intrinsic to the individual and the environment systems.

Pransky and colleagues (2004) argued that the unidirectional flow of information is limiting in so far as it effectively disregards any psychosocial or workplace variables that may be present, and provides no opportunity for resolving any concerns or conflicts. Moreover, they suggested that the authoritative element of communication tends to limit the range of information that is transmitted such that it is restricted to the focus and methods of the health discipline issuing it. So, for example, checklists, brief notes etc. The authors proposed that the limitations of this traditional communication model in health care settings meant that issues that may have more importance to the ill/injured worker on LTSA, but were beyond the focus of diagnosis and treatment of medical conditions, could easily be overlooked. Ultimately, failure to attend to such issues could lead to further time away from work and possible consultation with third parties such as legal representation or some other form of consultation.

Pransky and colleagues (2004) proposed that any adequate model of communication must be able to address workplace and psychosocial variables, and that failure to do so was introducing a major barrier to achieving successful RTW outcomes. They suggested the use of several tools and techniques to enhance worker-second party communication. In particular, the use of communications questionnaires that ask workers about broader issues in order to understand the workers' current state, thoughts, and needs. In addition, communication should be reciprocal rather than unidirectional, allowing for the mutual exchange of information. Such methods have been found to be important in developing trust and relationships, and these in turn are known to be important ingredients in any RTW process (Baril et
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Beyond this, Pransky and colleagues (2004) suggested that, drawing on the work of Bond and associates (2001), communication should be continual, multidirectional and non-authoritative. In practical terms, they recommended that workers should be encouraged to do work site visits and attempt a range of job activities with the understanding that their experiences and opinions are of primary importance. Workers would be advised of the inability of medical science to accurately predict RTW outcomes and that the interactive and iterative manner of this work matching process was paramount (Bond, Becker, Drake, Rapp, Meisler, Lehman, Bell, and Blyler, 2001).

Pransky and colleagues (2004) suggested that the types of communication activities within such a communication model might account for the RTW successes observed elsewhere. Loisel and colleagues (2003) noted that anything more than a few weeks of elapsed time away from work resulted in some detriment to employee-employer communication. Restoration of effective communication patterns was essential for successful RTW outcomes. This was achieved through regular communications, including face to face, information exchange, and gradual worker led work trials that allowed the worker to credibly assess and address their current capacity for each task.

Pransky and colleagues’ (2004) recommendations for a communications model add to the evidence that denounces the relevance of the paternalistic medical approach in the rehabilitation context and embraces a more empowered one. Acknowledging and incorporating worker perspectives within the broader social and employer systems is thought to have a significant bearing on RTW outcomes. To achieve this requires that all parties have the necessary skills to participate. This is an assumption of the model that is somewhat limiting. Patients are often unaccustomed to communicating about their preferences and concerns, health workers typically adopt a linear model, characterised by downstream information flow, and employers often cease communication once a worker is off. Even if, as Pransky and colleague’s (2004) suggest, workers are trained in order to achieve effective bi-directional interchange, it still remains that only half of the dyad has been coached in this model, whereas for the transactions to be a success both parties must be willing and competent participants. This constraint has been recognised by others (for example, Amick and colleagues, 2000) who have recommended that system level interventions, such as with the employer, need to be addressed prior to any
individual level intervention, not least because of the moderating effect they can have on the impact of individual factors. Notwithstanding, Pransky and colleague’s (2004) review of models of disability management with respect to communication provides significant insights into their limitations and provides persuasive argument for the central role that communication may play in work disability and RTW.

4.2.2.3 Goal Setting and Motivation in Rehabilitation

A further theoretical candidate offering potential to explain part of the variability in RTW behaviour is goal setting and the closely related concept of motivation.

Siegert and Taylor (2004) observed that goal setting within the rehabilitation field was largely atheoretical and suggested that this likely accounted for some of the RTW failures in rehabilitation. Some of the limitations of goal setting in rehabilitation these authors observed were: the tendency for patients to be passive in the goal setting process in hospital contexts; and the emphasis on framing goals in terms of physical outcomes rather than broader social and psychological issues. According to McPherson and colleagues (2001), health professionals and patients differ significantly in their outlooks on rehabilitation which results all too frequently in the patient or client perspective being ignored or poorly integrated into the overall rehabilitation goals (McPherson, Brander, Taylor and McNaughton, 2001).

Siegert and Taylor (2004) proposed that adopting an approach to goal setting that was grounded in sound theory could circumvent many of these problems and may provide for a better accommodation of individual and environmental factors. Drawing on the social psychology literature, the authors speculated on how the study of goals and motivation may provide the foundation for a theoretical framework of goal setting in rehabilitation. Specifically, they suggested that the motivation model of Deci and Ryan (1985) with its core elements of autonomy, relatedness and competence could provide a framework for goal setting that takes account of the whole individual rather than one that only emphasises pathology and diagnosis. Another core concept in this theory is that of intrinsic motivation. Deci and Ryan (1985) argued that intrinsic goals are more motivating than extrinsic ones. Developing this idea, Siegert and Taylor (2004) suggested that this could have great relevance to the rehabilitee in so far as whoever was working with them to help establish goals must first take the time to get to know the individual and their perspective on their situation. Only then could goals be developed that will have genuine personal meaning to the individual.
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A second theory deemed to have potential was Emmons' (1996) subjective goals and well being. Emmons theory posits a relationship between what people strive for, and therefore value, and how people feel about themselves, their 'subjective well-being'. Building on this concept, Siegert and Taylor (2004) suggested that the kinds of personal strivings that characterise an individual will closely resemble the types of goals that are important to them. Similarly, the extent to which those goals are achieved will impact how the person feels about themselves. This concept emphasises the central role that goals play in how a person feels and locates a person's emotions in the goal setting process in three distinct ways. Firstly, emotions are said to help people decide which goals are important; secondly, emotions mobilise people and help direct their efforts towards the goals; and thirdly, emotions provide a source of feedback to people about how they are progressing towards achieving their goals. So, if for example, a person experiences a positive emotional state while pursuing a goal, this communicates that the goal is worth striving for. Conversely, a negative emotional state might communicate a mismatch between the inner strivings of the individual and the goal they are seeking to achieve. According to this model, for goal setting to be successful, Siegert and Taylor (2004) suggested that clients' perspectives must be sought and incorporated into any goals and that their communications should be used as a measure of how well they perceive they are progressing. Moreover, monitoring these emotions would provide valuable feedback that could be used, when appropriate, to modify established goals.

The final model considered was Karniol and Ross' (1996) temporal influences on goal setting. A key concept in their theory is the impact that a person's autobiographical memory has on one's vision of the future, thereby influencing the goals and motivation in the present. Applying this to the realm of goal setting in rehabilitation, Siegert and Taylor (2004) suggested that a person's memory of the past could play a critical role in influencing the goals that they would consider in the present, and how achievable they would rate these goals. In practical terms, Siegert and Taylor (2004) observed that in circumstances where a negative memory was limiting the ability to set appropriate goals, initial effort should be invested in increasing positive mood states by using pleasant experiences rather than trying to get the client to create some long term life goals.

Siegert and Taylor (2004) proposed that these three models provided the theoretical
basis for the development of a framework for goal setting in rehabilitation. Their analysis integrates these concepts plausibly and provides good evidence that this body of theory has considerable synergy with goal setting in rehabilitation. Some such as King and Barraclough (cited in Maclean and Pound, 2000) have suggested it is unhelpful, while others like Siegert and Taylor (2004) present a strong case in its favour. The challenge remains for researchers to determine how it might be practical to bridge the theoretical with the empirical in order to advance a scientific approach to goal setting and motivation in rehabilitation and the RTW process.

4.2.2.4 Motivation to RTW

One very specific goal in the work disability experience that has received theoretical consideration is returning to work. Berglind and Gerner (2002) developed the 'action theory perspective' which is a specific theoretical approach for explaining RTW outcomes (i.e. working or not working) that considers the individual within the broader social context.

According to Berglind and Gerner's (2002) theoretical perspective, there are three core elements intrinsic to the individual which determine how a person will make a choice between RTW or not RTW: what they want (preference); what they believe they are capable of achieving (perceived competence); and what they believe they can get (opportunities). These elements are said to be correlated to varying degrees within a person.

The authors suggest that in most approaches to motivation, there is a focus only on the first of these three elements, namely, what the person wants, and that this leads to a binary outcome whereby the person is either seen as motivated (i.e. in this case, returns to work) or unmotivated (does not return to work). If, however, motivation is not defined in this manner, but is allowed the more inclusive perspective of incorporating what the person thinks they can manage and what they can get, then very different options arise.

From an action perspective the barriers to RTW are represented in one of the seven subjective states that come from the motivation matrix which comprises the three elements, want (does vs. doesn't), manage (can vs. can't) get (can vs. can't). Cannot refers to the person's perception that they could not cope with some aspect of the work. More than one of these barriers can be present at the same time.
The action theory model of RTW outcomes emphasises the importance of the individual's subjective view. Preliminary research in validating this concept through the application of a specially constructed instrument that aims to tap this information has born promising results. In a study that spanned two years, data from the initial study which captured the views of the workers at the beginning of the sickness period were correlated with employment status two years on. Wanting to RTW was shown to be related to RTW outcome and it was not an isolated opinion. It was found to be connected to one's perceived state of competence [can vs. cannot manage] (Berglind and Gerner, 2002).

While the authors acknowledge that this theory remains incomplete it does offer the potential to explain RTW outcomes by proposing a theoretical process of motivation to RTW which the long term sick go through; namely 3 core choices; the individual's perception of his preferences or wants (does vs. doesn't), competence or manage (can vs. can't) and opportunities or get (can vs. can't). The model proposes that the reasons why a person does not RTW can be explained by what the person thinks he doesn't want, is not able to and cannot get or any combination of these, when considering RTW options. However what the model is not able to accommodate is the case where the long term sick want to RTW, can manage and can get yet do not RTW (Kenny, 1995a). Kenny (1995b) for example reported a number of cases of work disabled who had been expected to RTW yet failed to do so.

It is suggested that the theory's failure to take account of the emotional element of goal setting on motivation to RTW may explain this. While an individual may want and know that they will RTW at some future time, for the present they may choose not to RTW for any number of reasons such as because of how they perceive they have been treated by their employer or any other significant stakeholder in their RTW experience. The role of affect or emotion is thought to be important in influencing choice of goals and in a person's success in meeting goals (Karniol and Ross, 1996). Karniol and Ross (1996) proposed that goal setting is not a simple linear process that occurs in a void. Rather, that people are influenced by events and their cognitive representations of these, which contain a significant emotional element. In the case of the long term sick, it is suggested that the influence of emotion may impact RTW outcome, and failure to RTW at some point in time may be because of this rather than one or more of Berglind and Gerner's (2002) three elements. This would seem to be a weakness of this model and further empirical
validation of this theory is required. What the model does offer is an individual perspective of motivation to RTW upon which future hypotheses can be built, with particular relevance on the insights into the variations in return to work behaviours that may be illuminated through examination of the individual's experience of work disability.

4.2.2.5 Cognitive Appraisal

While the model of motivation to RTW developed by Berglind and Gerner, (2002) lacks explanatory power with respect to the role of emotion and its influence on work disability and RTW, it is argued that the notion that people are influenced by their cognitive representations of events may have significant relevance to work disability and RTW. A number of researchers (Shaw et al, 2002; Foreman and Murphy, 1996; Kenny, 1995b; Roessler, 1989) have attempted to explain the relationship between personal and environmental characteristics and RTW outcomes in terms of the emotional or cognitive response that an injured/ill worker has to their situation. From this perspective the way that the work disabled interprets his or her situation and how they emotionally respond to their injury and LTSA experiences are thought to be critical to the RTW process.

According to this viewpoint, the concept of cognitive appraisal could provide an appropriate theoretical tool by which to better understand RTW behaviour. Cognitive appraisal is an individual’s appraisal of a situation, or more specifically "the process of categorising an encounter, and its various facets, with respect to its significance for well-being" (Lazarus & Folkman, 1984, p.31). In other words, cognitive appraisal concerns what is at stake for the individual. According to Lazarus and Folkman (1984), appraisals are either primary, which is a person's initial interpretations of an event, or secondary, which is defined as the person's evaluation of the thoughts and actions needed to deal with the situation. Two things are important in this: whether the person interprets the event as good or bad for them and what they believe is the cause of the event.

There is some empirical support within the RTW literature for the concept of cognitive appraisal having significant relevance to work disability and RTW. Foreman and Murphy (1996) argued that the injured worker's subjective estimate of the likely positive or negative outcomes of different courses of action play a central
role in the ill/injured RTW motivation. They suggested that the success or otherwise of post injury intervention was at least partly dependent on the extent to which the ill/injured experiences with the various stakeholders in the RTW process such as claims managers, treatment providers, and workplace personnel resulted in the ill/injured having positive and appropriate mental conceptualisations about the treatment and rehabilitation process and outcome.

Similarly, Shaw and colleagues (2002) proposed that individual perceptions of personal and environmental issues play a critical role in determining RTW behaviour. Using a qualitative research design, the authors interviewed ill/injured workers about their sickness absence experiences. Shaw and colleagues (2002) found that how an ill/injured worker perceived his injury or disability and its anticipated impact on ability to function in the work role were crucial to understanding RTW behaviour. The authors concluded that integrating individual perceptions was essential to promote a better understanding of the RTW process.

These findings suggest that the concept of cognitive appraisal may provide an appropriate theoretical tool by which to better understand work disability and RTW. From the perspective of the work disabled, the long term sick may make cognitive appraisals of events within their work disability experience which in turn come to be labelled positively (enablers) or negatively (barriers) and the thoughts and actions determined to manage these events may subsequently influence RTW outcomes. The role that cognitive appraisal may play in work disability and RTW requires further investigation.

4.3 CONCEPTS OF INTEREST

A number of critical reviews have suggested that the lack of theoretically based research in this area may explain some of the limitations of the RTW literature (Siegert and Taylor, 2004; Shaw and Polatajko, 2000). Many research investigators (see for example, Siegert and Taylor, 2004; Shaw and Polatajko, 2000; Shaw et al, 2002; Kenny, 1996b) have noted the tendency to overvalue empiricism at the expense of theory development and have suggested that for the work disability RTW field to advance as a scientific discipline, it needs conceptual and theoretical advances, not solely evidential ones (Krause et al, 2001a). In other words, it is not enough to identify the barriers and enablers to RTW; rather, there needs to be
understanding of how the RTW process works.

The models and concepts reviewed in this chapter demonstrate that a number of research investigators have thought about this, yet the field remains relatively impoverished. It is the intention of this thesis to draw on a number of the concepts and processes reviewed here with a view to advancing understanding of both the variables that act as barriers and enablers to RTW and key RTW processes. Firstly, the proposition that work disability and RTW is best viewed from the perspective of the long term sick is key to this thesis. Drawing on the work of Berglind and Gerner (2002) and Shaw and colleagues (2002) it is argued that in order to change RTW behaviour of the work disabled there needs to be understanding of their perspective of the work disability experience, what they think and believe and how this influences RTW outcome. Secondly, developing this perspective, it is argued that a systemic paradigm offers the best contextual framework in which to account for their experience of LTSA; in other words, to understand and integrate their experience of LTSA. This framework comprises three co-existing domains; societal, organisational and individual, each populated with factors perceived by the long term sick to be associated with work disability and their effects, manifested in sickness absence duration and RTW outcome (Pransky et al, 2005; Maki et al, 1978; Cottone 1987; Kenny, 1995a; 1996b).

Thirdly, as this thesis is directed at the perceptions and experiences of the long term sick, and through this lens proposes to explain key processes involved in work disability and RTW, there is particular interest in identifying the roles that communicating relationships, motivation to RTW and cognitive appraisal may play in work disability and RTW. With respect to communicating relationships, there is interest in understanding from the perspective of the long term sick which relationships in the work disability experience are seen as being central and what is the nature of their influence, as barriers or enablers, on work disability and RTW. For example, is the employer-employee relationship particularly relevant in the RTW process from the perspective of the long term sick as it has been suggested it is within other occupational rehabilitation settings described by Kenny (1995a; 1996b) and Bruyere and Shrey (1991)? Moreover, how do these relationships influence work disability and RTW from the perspective of the work disabled, for example, is it via the process of triangulation suggested by Kenny (1995a; 1996b) or the notion of occupational bonding proposed by Bruyere and Shrey (1991)?
Within these central relationships there is interest in understanding what if any significant role is played by the nature of the communication with respect to work disability and RTW. For example, from the perspective of the long term sick, does the traditional approach to communication described by Pransky and colleagues (2004) of authoritative, impersonal and unidirectional influence RTW outcome and if so, how?

With respect to the concept of goal setting and the closely related concept of motivation, there is interest in understanding the influence that these two concepts have on work disability and RTW. In particular, there is interest in understanding the influence that the work disabled holding the very specific RTW goal may have on work disability and RTW. Berglind and Gerner (2002) considered RTW outcome to be the result of the work disabled making choices. This thesis is interested firstly in whether holding a RTW goal influences RTW outcome and secondly if it is held, whether the choice of action taken by the work disabled is consistent with the goal.

The final concept of interest is cognitive appraisal (Lazarus and Folkman, 1984). It is proposed that the long term sick may make primary cognitive appraisals of events within their work disability experience which they label positively (enablers) or negatively (barriers) and subsequently make secondary appraisals regarding the thoughts and actions needed to manage these events and that this process is a key influence on work disability and RTW.

Understanding the role that these concepts may play in helping to explain variations in RTW behaviour and successful RTW is a primary focus of this research.

4.4 CONCLUSIONS

One of the major gaps in our knowledge is an understanding of work disability from the perspective of the long term sick. Very few investigations have considered the personal meaning the long term sick ascribe to different events in their work disability experience and the impact this has on the course of work disability. Researchers have suggested that considerable advances could be made by exploring the long term sick's perspectives to the extent that they are regarded as contributors to their RTW process (McGartland and Polgar, 1994; Russell, 1999; Krause et al, 2001a).
Another significant knowledge gap is the UK experience of what constitutes barriers to successful RTW, particularly given the absence of any government led RTW rehabilitation programmes like those found in Australia, Canada and Northern European countries. Relatively little research effort has been invested in the RTW field in the UK, probably in part because of a lack of interest and investment in work disability in the UK over the years. This has left the situation in a somewhat unsystematic and unsophisticated state (BSRM, 2000; DWP, 2004).

If we are to look to the literature for theoretically sound evidence-based practice, then the literature must provide comprehensive analysis of all the factors influencing RTW outcomes and key RTW processes. This will contribute to greater awareness and understanding of factors that contribute to delays in recovery and should provide strategies for improving RTW outcomes. Evidence of which occupational rehabilitation interventions are effective to date remains contradictory and inconclusive and understanding of the key RTW processes remains poor (DWP, 2004; Krause et al, 2001a).

4.5 STUDY AIMS

Long term work disability and RTW outcomes are influenced by societal, organisational and individual domain factors. Empirical findings demonstrate the advances that have been made in understanding workplace disability and RTW from LTSA over the last twenty years, yet there remain large gaps in our knowledge. Both retrospective and prospective studies have attempted to identify those factors most important in successful RTW outcomes. However, disability prediction models using not only physical, but also psychological, social and workplace factors account for less than twenty five per cent of the variance in work disability outcomes in most studies (Shaw, Pransky and Fitzgerald, 2001). This suggests other, as yet identified factors may be more important.

Overall, little is known about the course of LTSA. In particular, knowledge of the work disability experience from the perspective of the long term sick is scarce and little is known about what happens to them during the first few months of a sickness absence period (Krause et al, 2001a). Determinants of early RTW are unclear. There is still little empirically based understanding of how to prevent protracted sickness absence (Janssen, et al, 2003). Moreover, for the factors that have been
shown to be associated with work disability and RTW, little abounds that draws these factors together into a unifying theory. The phenomenon of RTW from LTSA remains poorly understood (Crisp, 2000).

Currently in the UK, significant effort is being invested both privately and publicly in developing policies and practices to better manage LTSA. What is needed first is a better understanding of the work disability experience from the perspective of the long term sick, the barriers and enablers to RTW and the processes involved in work disability and RTW. The present research aims to address this. It aims to identify: factors that help and hinder RTW from the perspective of the work disabled, thereby curtailing or prolonging the period of LTSA; how each of these factors variously contribute to the work disability experience; the variability in these factors across different job roles; and the key processes involved in RTW.

The approach chosen to undertake this research is a mixed methods one, drawing on objective and subjective sources. Study One adopts a quantitative approach and aims to establish regularities and patterns in LTSA among the occupationally diverse Anon Force. In doing so, this study will substantiate the presence of any objectively determined individual domain barriers to RTW and predictors of RTW outcome and establish the phase specificity of any risk factors of prolonged work disability.

Study Two adopts a qualitative approach and aims to describe the experiences of police staff and police officers who have been or remain on LTSA. In so doing, this study will provide an understanding of the story behind the comparative quantification from Study One and provide new information about barriers and enablers to RTW from the perspective of the long term sick, how they perceive and respond to events in their LTSA experiences, and the effect this has on the course of LTSA and RTW outcome.

The mixed methods approach is especially suited to RTW research, which has been criticised for overly focusing upon how well work disabled people perform a range of physical and psychosocial activities within the framework of statistical methodologies and biomedical disease models at the expense of understanding the individual (Crisp, 2000). The unique and personal meaning that the work disabled ascribe to their psychosocial experiences remains largely ignored (Krause et al, 2001a).
5.0 CHAPTER 5 METHODOLOGY AND ETHICAL CONSIDERATIONS

This chapter clarifies the epistemological position of this thesis. It elaborates the rationale for adopting a mixed methods research design incorporating both qualitative and quantitative research methods to conduct this investigation into barriers and enablers to returning to work from long term sickness absence. This chapter also discusses the ethical considerations in conducting research with a sample of people on long term sickness absence.

5.1 METHODOLOGICAL CONSIDERATIONS

5.1.1 The Quantitative - Qualitative Distinction

Since the early 1900’s, research has relied largely on the traditional approach to research analysis; the positivist, objective, quantitative view. However, the mid to late 20th century saw serious challenge to this approach by the post-positivist, subjective, qualitative approach, fuelled by the increasing prevalence of family and individual issues (Patton, 1990; Bryman, 1988; Pidgeon, 1996). Today, there is an extensive body of literature on research methodology in which there is ongoing debate about the relative merits of qualitative and quantitative research methods; indeed the two approaches are frequently presented as adversaries in a methodological battle (Hammersley, 1996).

5.1.1.1 Quantitative Methods – The Positivist Scientific Model

Quantitative research has been and remains the principle defining methodology of psychology, with many considering its experimental form the “sine qua non of scientific inquiry” (Hammersley, 1996, p.158; Casebeer and Verhoef, 1997). Central to quantitative methodology is the positivist scientific model which assumes that there is only one reality and it is made up of objectively defined relationships which are external to the individual. Accordingly, the researcher’s role is to explain, predict or control these in order to discover some ‘objective’ truth. The quantitative tradition assumes all relationships are findable, verifiable, and exist at the group level. It uses numbers rather than words and is characterised by few variables and many cases. Positivism offers breadth because it allows the researcher to collect data from many ‘subjects’ on a number of well defined questions. It strives to be unbiased, reliable and rational; research questions typically compare two or more groups or
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relationships between variables in order to establish a relationship or cause and effect, thus answering a *why* question. Broadly speaking, quantitative methodology is objective, deductive, theory driven, reductionist in nature and generalisable (Lincoln and Guba, 1985; Hammersley, 1996).

5.1.1.2 Qualitative Methods – The Post Positivist Constructionist Model

Central to qualitative methodology is the constructionist model which assumes that human beings construct their own realities based on their physical and social experiences (Henwood and Pidgeon, 1992). The qualitative researcher's role is concerned with discovering the meanings seen by those who are being researched, of understanding their view of the world rather than that of the researchers. Qualitative research takes an interpretive naturalistic approach to its subject matter; studying things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings that people bring to them (Denzin and Lincoln, 1994). It is an interactive process in which the researcher and the participant learn from each other and results in realistic understanding, interpreted through the social and cultural context of their lives (Lincoln and Guba, 1985). Qualitative inquiry is based on an inductive reasoning process where the research design process evolves, such that the questions asked and the data to be collected emerge in the process of doing the research. In-depth, detailed, rich data is produced based on the individual's personal perspectives and experiences (Henwood and Pidgeon, 1992). The goal of qualitative research is the development of concepts which help us to understand social phenomena in natural (rather than experimental) settings, giving due emphasis to the meanings, experiences and views of all the participants. As such, the research question for the qualitative tradition often starts with a *how* or *what* so that from the outset, the description is speaking to what is happening in terms of the topic; "What is X and how does X vary in different circumstances, and why?"

Qualitative methodology uses words rather than numbers and operates at the individual level. Since qualitative research does not generally seek to enumerate, it is viewed as the antithesis of the quantitative method. Broadly speaking, qualitative methodology is subjective, inductive, and not generalisable (Lincoln and Guba, 1985; Henwood and Pidgeon, 1992; Hammersley, 1996).
The issue of which methodology to use has been the subject of lengthy debate which has been useful for highlighting the advantages and disadvantages of both approaches. It has also spawned a view that qualitative and quantitative forms of research both have roles to play in theorising. The issue is not whether to use one form or another but rather how these might work together to foster the development of theory.

5.1.2 Quantitative - Qualitative Methods: Competing or Complementary Paradigms?

Just as there is a somewhat strident debate in the research literature about the relative merits of qualitative and quantitative methods, so too is the debate about the appropriateness of combining the two approaches. On the one hand there is the view that qualitative and quantitative methods are competing paradigms, non miscible in any proportion (Lincoln and Guba, 1985). "Like water and oil, they will not mix; indeed to put them together is to adulterate each with the other" (Guba and Lincoln, 1988, p.111). On the other hand there is the view of methodological eclecticism which holds that while there are epistemological and ontological differences between the two methodologies they are nonetheless complimentary (Henwood and Pidgeon, 1992).

According to the competing paradigms view, researchers must choose between qualitative and quantitative methods with no possibility for blending and combining (Guba and Lincoln, 1988). This divide has prevailed for years and as such, researchers have had to follow one path or the other. While this remains the dominant case there is an increasing trend towards the complimentary eclectic perspective, whereby a mixture of both methodologies is seen to strengthen the research (Pope and Mays, 1995; Henwood and Pidgeon, 1992). According to this perspective, decisions about which research paradigm to use are not based on the traditional research focus but on the research question; the idea being that different methodologies are appropriate for different research questions (Patton, 1990; Hammersley, 1996; Henwood and Pidgeon, 1992). Patton (1990) viewed the underlying values of research to stretch across a continuum. He believed that scholars could be most effective when they utilised the continuum at any point that best answered the research question.

Methodological eclecticism challenges the tendency for both qualitative and
quantitative approaches to assume a single model of the research process; with quantitative methods tending to assume that all research is about hypothesis testing in order to prove or disprove a theory, and qualitative methods typically seeing research as exploratory and theory generating (Hammersley, 1996). In place of the single model, methodological eclecticism encourages researchers to recognise that "both the character and the products of research may need to vary over the course of research programmes" (Hammersley, 1996, p. 174). Recognition that there is no fixed relationship between the use of qualitative and quantitative methods and a particular stage in a research programme provides space for a number of research method possibilities to flourish. For example, qualitative work can be conducted as an essential preliminary to quantitative research. It can also be used to supplement quantitative research. This can be part of the validation process known as triangulation, where a number of methods are used and the results compared for convergence (for example, a large scale survey and a series of in depth interviews), or as part of a multimodal approach which examines a particular phenomenon or topic on several different levels. Qualitative research can compliment quantitative work by exploring complex phenomena or areas not amenable to quantitative research (Brannen, 1992).

Thus, according to methodological eclecticism the basic premise is that the research question should dictate the method. This pragmatic approach does not aim to reconcile the epistemological differences between qualitative and quantitative methods but to base decisions on the appropriateness of the research method to yield data that will answer the research question. Such a position ensures that there is a range of methods available, which ensures that it is carried out in the most parsimonious and advantageous means for understanding the research issue (Strauss and Corbin, 1998). "What is involved is not a crossroads where we have to go left or right. A better analogy is a complex maze where we are repeatedly faced with decisions, where the paths wind back to one another. The prevalence of the distinctions between quantitative and qualitative method tends to obscure the complexity of the problems that face us and threatens to render our decisions less effective than they might otherwise be" (Hammersley, 1992, p.55).

The nature of the general theoretical debate, then, is characterised by fundamentally different understandings or beliefs about scientific research, in particular, and the world in general. Adherence to different and separate paradigms can trap
researchers into believing that there is only one true 'scientific' way to conduct research (Verhoef and Casebeer, 1997). Methodological eclecticism offers the researcher access to methodologies that can be used for both theory generating and theory testing. This position is one that significantly enhances research possibilities, and one therefore that is adopted by this thesis.

5.1.3 Methodological Rationale

The dichotomy of quantitative, deductive analysis under objective conditions versus qualitative, inductive inquiry aimed at understanding phenomena in uncontrolled, natural contexts remains a barrier between researchers from different analytical disciplines. These distinctions are particularly unhelpful when the focus of research is LTSA and factors associated with RTW (Krause et al, 2001a). Long term sickness absence, by its very nature, requires the complimentary use of quantitative and qualitative research methods in order to quantify the factors of returning to work, especially with respect to the type of illness/injury involved, and to qualify the disability experience from the viewpoint of individuals with respect to how their perceptions of injury and experiences of being work disabled impact return to work behaviour (Shaw et al, 2002). Patton (1990) proposed that exploration of the lived experience was essential to gain insight into a phenomenon. To date the majority of research effort has been quantitative and has focused on attempting to explain factors that might account for the variation in individuals who return to work versus those who do not, and has largely ignored the personal experiences of work disabled people in the return to work process (Krause et al, 2001a; Crisp, 2000).

Mixed methods research has been described as being particularly suited to the study of long term sickness absence (Krause et al, 2001a). Very different types of information are derived from the different methods. For example, a large quantitative study may pick up statistically significant, quantifiable variables, while a series of in depth interviews gives access to the personal meaning individuals place on their physical and social experiences. The mixed methods approach can help build a wider and richer picture of the issue under investigation (Pope and Mays, 1995).

As a requisite to using mixed methods, it is helpful to be clear about the reasons for mixing methods (Yardley and Bishop, 2007). The aim of this thesis is to study barriers and enablers to RTW from LTSA. The combination of using quantitative and
qualitative methods ensures that the design is responsive to this research problem.
Specifically, Study One, the quantitative component is used to determine relationships
between RTW outcomes and time lost and individual domain factors among the
occupationally diverse Anon Force. The quantitative research method and analyses
are perfectly adequate to answer the broad research questions, where mass data are
being explored in an endeavour to establish regularities and patterns in LTSA and
substantiate the presence of any individual domain barriers to RTW and predictors of
RTW outcomes.

This is followed up with Study Two which utilises a qualitative methodology of in depth
semi structured interviews with a sub sample of police officers and police staff from
the survey in order to elaborate on the relationships found in the quantitative analyses
and explore the barriers and enablers within the different domains (individual,
organisational and societal) to RTW from LTSA by accessing individual perceptions of
their LTSA experiences. The qualitative methods and analysis are appropriate for this
study in order to access depth and the particularly human aspects of prolonged work
disability. Only at this level of inquiry can the knowledge be accessed that allows for
an elaboration and explanation of what may impede or enable RTW and thereby
reveal a more complete picture of the determinants of RTW outcomes and insight into
the relationship between the different domains. This is a knowledge base that has
been relatively ignored in the biomedical literature (Krause et al, 2001a).

5.2 ETHICAL CONSIDERATIONS

5.2.1 Introduction

Good psychological research requires mutual trust, confidence and respect between
researchers and participants. In an effort to ensure such conditions are met The
British Psychological Society has documented guidelines that specify the conditions
under which psychological research is acceptable (BPS, 2004). In addition to this it
has developed a code of ethics and conduct (BPS, 2006) which defines guidelines for
the highest standards of professionalism amongst psychologists. This section
discusses the primary ethical issues associated with conducting social research as
they relate to this thesis.
5.2.2 General Respect

An important ethical consideration when conducting psychological research is that of respect. According to the BPS (2006) '.. psychologists value the dignity and worth of all persons .' (p. 10). In the present research the issue of respect was seen as being particularly relevant. Participants had to undergo lengthy one on one interviews, most of which were conducted in peoples' homes. This brought the researcher face to face with their private circumstances and highlighted social and cultural differences which acted as reminders of the need to respect individual differences and avoid any prejudicial practices.

5.2.3 Privacy and Confidentiality

Another important ethical consideration when conducting psychological research is that of privacy and confidentiality. According to the BPS (2004; 2006), psychologists must keep appropriate records and store all confidential information in a manner that will avoid any inadvertent disclosure; and the identity and privacy of participants must be maintained. In the present research this guideline was very relevant and brought forward several issues.

Firstly, as part of the process of negotiating access to the Anon Force several meetings were held to discuss how the personal data of staff would be used and stored. This was a lengthy process and it took approximately one year to reach agreement. A significant component of that process involved communicating with members of the data protection team, part of the Policy Review and Standards Department, to clarify several queries about access to and management of personal details of members of the Anon Force who had had an episode of long term sickness absence.

For the quantitative study, it was agreed that: all cases in the personnel dataset would be coded using a numerical identification system so that no individual could be identified; certain data fields would be withheld from the researcher including warrant number, age, ethnicity, home address, and years of service; all data would be transported by disk to the secure offices of the researcher which is registered with Data Protection; once onsite, all data would be secured with a two level password for access; all quantitative data would be destroyed or returned at the completion of the
research; and the researcher would sign a confidentiality agreement in order to obtain the required level of security clearance to access personnel data.

For the qualitative study, because of the sensitivity of the research issue and the need to maintain anonymity from the researcher of individuals on long term sickness absence it was agreed that a letter of invitation would be drafted by the researcher but then sent by the Anon Force via Personnel on official letterhead to all persons eligible to participate in the study (See Appendix 4). The letter explained the purpose of the research and invited recipients to contact the researcher if they agreed to participate in an in depth interview at their choice of venue. The letter contained a statement explaining that up to the point of them making contact with the researcher, their identity was unknown to the researcher, and after they made contact with the researcher, the Anon Force would not be informed of who had agreed to participate. Participant anonymity from the researcher at the point of invitation and from the Anon Force at the point of response was seen as being particularly important in order to ensure that people did not think their identity and home details had been released to the researcher and also because of the potential for non participants to be stigmatised for what could be interpreted as non co-operation in a project that aimed to develop understanding of the hindrances and facilitators to RTW. Draft letters were submitted to the thesis supervisors before being sent.

Ongoing consideration for the privacy and confidentiality of participants was paramount throughout the qualitative study because of the sensitivity of the topic. Lee (1993) discussed at length the potential for sensitive topics to expose information that could be "stigmatising or incriminating" (p.4). Long term sickness absence involves very personal information which could have potential to stigmatisate or incriminate. Malingering, for one thing, has been the subject of extensive speculation in the literature and popular press, and there was potential for individual participants to expose stigmatising or incriminating information relating to themselves and the organisation. To ensure confidentiality and anonymity of participants all interview data was secured in a locked office in alarmed premises and only accessed by the researcher. Participants were assured by the researcher that no individual data would be released to anyone, including their organisation, and only aggregate data would be reported. It was explained that the exception to this would be the use of some quotes, for which permission was sought. It is important that no individual could be identified.
Another problem with research of this sensitive nature is the possibility that it may raise issues for participants concerning their circumstances and produce strong emotional responses in them that they may be inadequately equipped to deal with. For this reason it is important that the interviewer is sensitive to possible participant reactions during the in-depth interview and ensure that participants are comfortable and not distressed at the conclusion of the interview. The researcher is a chartered clinical psychologist with the British Psychological Society and was prepared for any such eventuality. A list of internal organisational support services was made available to all participants. In the event that a participant became distressed, empathic listening skills were used to move the person to a calmer emotional state, before continuing with the interview. On no occasion was it deemed necessary to abandon an interview however eleven were suspended at various points in order to allow the participant to regain composure.

With respect to the organisation itself, during the eight meetings that were held in order to discuss the proposed research, the researcher found the Anon Force to be mindful of its public face and very cautious about opening itself up to outsiders. As noted earlier, it took nearly a year to get agreement to undertake this thesis. In one sense this is very understandable. The Anon Force receives thousands of requests to use it as a source of research data. However, it also feels like it is quite protective of its private face, and to that end sensitive to criticisms. That said, since agreement was granted, members of the Anon Force have generally been cooperative and accommodating.

5.2.4 Informed Consent

An essential ethical consideration when conducting research is that of consent. The BPS (2004; 2006) recommends that participants in research are given ample opportunity to understand the nature, purpose and possible consequences of their involvement and that consent is obtained and adequately recorded. For the qualitative research in this thesis, all participants were responsible adults, making securing consent relatively easy. At the beginning of the interview participants were given a full disclosure of the investigation and the anticipated consequences.
Participants were given the opportunity to ask any questions after which their understanding of what they were committing to was checked by the researcher. Having understood the disclosure and asked any questions, participants were then asked to complete a consent form (see Appendix 7). All completed consent forms were securely stored in the researcher's office.

5.3 SUMMARY

Research methodology and ethics play a central role in the research process. This chapter has elaborated the rationale for adopting a mixed methods research design incorporating both qualitative and quantitative research methods to conduct this investigation into factors associated with RTW from long term sickness absence. This thesis comprises two studies. Study One utilises a quantitative methodology to identify the objectively determined individual domain barriers to RTW among the occupationally diverse Anon Force. Study Two utilises a qualitative methodology of in depth interviews with a sub sample of police officers and police staff from Study One to explore the work disability experience from the perspective of the long term sick. In so doing, this will provide an understanding of the story behind the comparative quantification from Study One and provide new information about barriers and enablers to RTW from the perspective of the long term sick, how they perceive and respond to events in their LTSA experiences, and the effect this has on the course of LTSA and RTW outcome. This chapter has also described how the ethical considerations associated with conducting research with a sample of people on long term sickness absence were dealt with by the researcher.
6.0 CHAPTER 6 POLICING

The organisational context for investigating determinants of RTW from LTSA in the current research is Policing. This chapter outlines the typical police organisation, describing aspects of the culture, structure, and staffing. It goes on to discuss the specific organisational policy relevant to attendance management in the Anon Force.

6.1 POLICING

Police organisations are charged with the responsibility of maintaining law and order (law enforcement), and protecting the general public from harm. The police organisations in the United Kingdom may be called Service or Constabulary or simply Police with the appropriate County name (e.g., Surrey Police, Hampshire Constabulary Metropolitan Police Service).

6.1.1 The Policing Organisation

Police organisations within England and Wales are divided into Home Office and Non Home Office forces, the latter such as British Transport Police and the Ports Police have specific responsibilities. General policing is provided by five metropolitan forces and 37 provincial forces. Police organisations are tall, hierarchical and quasi-military bureaucracies (Auten, 1985). By tall it is meant that there are a lot of intermediary ranks between the top and the bottom. Because of this, the chain of command is an important principle in how the organisation operates. By hierarchical it is meant that power resides in the hands of a few at the top. By quasi-military it is meant that the police have incorporated military-style characteristics. By bureaucracy it is meant that a certain set of structural arrangements predispose a certain set of human behaviours (Bennis, 1966).

The hierarchy of authority which typifies bureaucracies largely influences the nature of their communication channels. Characteristically vertical, top-down communication is more important than horizontal, side ways communication (Dantzker, 1999). Rules and procedures dominate which gives bureaucracies their aspect of formality, with 'formal' meaning documentation (everything is written down); and the very arrangements that are designed for organisational efficiency lead to impersonal human relations (Dantzker, 1999).
The impersonality that characterises bureaucracies is not out of any negative reaction to the many rules and regulations, but because of the atmosphere or climate of the organisation (Dantzker, 1999). While staff turns over, the jobs stay the same, thus giving continuity to function whilst accommodating movement of individuals. And that very efficiency is what is intended with bureaucracy.

Impersonality has been described as the human characteristic of bureaucracy and it is this element of the police culture that is particularly relevant to workplace disability (Dantzker, 1999). There is considerable research to indicate that successful work disability management and higher return to work rates from long term sickness absence are associated with a people oriented culture, i.e. one that is nurturing, where supervisors and managers are effective in their communication with staff and are supportive in their approach, where policies are formal and written, and where there is a high level of trust in the employee/employer relationship (Nieuwenhuijen et al, 2006; Williams et al, 2005; Krause et al, 2001; Hunt and Habeck, 1993). For the most part, these are not features of the police culture. For those who are work disabled within the police service their RTW efforts likely occur within a cultural context that in many respects is in stark contrast to this people oriented culture and with the exception of the formal element of rules and procedures is impersonal and inflexible (Brown, 2000).

6.1.2 Organisational Staffing

The Anon Force is responsible for managing and delivering the policing within its geographic jurisdiction. It employs a large number of police officers and police staff¹ (or civilians)². Police staffing comprises warranted police officers, who are either uniformed or non uniformed, and unwarranted police staff who are primarily servicing (plant maintenance), administrative support or who are engaged in quasi police roles such as control room operations or scenes of crime analysis. Uniformed police officers have general law enforcement duties, including maintaining regular patrols and responding to calls for service. They may direct traffic at the scene of an accident, investigate a burglary, or give first aid to an accident victim. Officers are usually assigned to a specific type of duty such as family liaison or undertake general duties in a given location or beat.

Most of the day to day policing is typically the responsibility of urban or borough

¹ Police staff is the term used for civilians ² Actual numbers of staff are withheld to preserve the identity of the Anon Force
operational command units. These police units are involved in community policing - a practice in which an officer builds relationships with the citizens of local neighbourhoods and mobilises the public to help fight crime.

Some uniformed police officers and civilian support staff specialise in such diverse fields as chemical and microscopic analysis, training and firearms instruction, or handwriting and fingerprint identification. Others work with special units such as air support, mounted branch, motorcycle or harbour patrol; dog support; special weapons and tactics (SWAT); emergency response teams; intelligence, security, protection of politicians, embassies and royalty; and anti terrorism.

Non uniformed police officers or detectives are investigators who gather facts and collect evidence for criminal cases. Some are assigned to interagency task forces to combat specific types of crime. They conduct interviews, examine records, observe the activities of suspects, and participate in raids or arrests. Detectives usually specialise in investigating one of a wide variety of violations, such as homicide or fraud. They are assigned cases on a rotating basis and work on them until an arrest and conviction occurs or until the case is dropped. Due to the nature of their duties these officers generally wear plainclothes and so do not wear the corresponding rank insignia. However they still operate within the same structure as other officers. Regardless of job duties or location, police officers and detectives at all levels must write reports and maintain meticulous records that will be needed if they testify in court.

Non warranted police staff provide various management, administration and support functions. Their functions include recruitment, training, personnel management, provision of information technology, vehicle maintenance, catering, publicity, telecommunications and communications. The front desks of police stations are frequently staffed by civilian police staff. In addition to the work carried out by police staff, other support and administration roles are carried out by police officers who, for example, may be seconded to a unit for a period of time.

More recently the police community support officers (PCSOs - civilians in uniform) have been employed as part of a national agenda of reassurance policing and are deployed specifically to strengthen community policing. PCSOs were introduced to London on 11 September 2002. They provide an additional resource for the Police
Service and act as a highly visible deterrent on the streets and in neighbourhoods and enable warranted police officers to be used more effectively in tackling crime and making communities safer. The present research was started too early to have included this job group.

There are also members of a volunteer, part time force of special constables who patrol in uniform and have powers of arrest that supplement the regular force of uniformed officers. Table 6.1 presents numbers of police officers and police staff in England and Wales for 2002 (Home Office Statistical Bulletin, 2006).

<table>
<thead>
<tr>
<th>Staff Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police officers</td>
<td>127,267</td>
</tr>
<tr>
<td>Police staff</td>
<td>58,909</td>
</tr>
<tr>
<td>PCSOs</td>
<td>507</td>
</tr>
<tr>
<td>Specials</td>
<td>11,598</td>
</tr>
<tr>
<td>ALL</td>
<td>198,281</td>
</tr>
</tbody>
</table>

All figures represent full time equivalents and exclude secondments

6.1.3 The Organisational Staffing Structure

A police force is a large organisation with a complex command structure that reflects the diverse range of tasks it is expected to undertake. Because of the quasi-military nature of police forces, the method of organisation for police officers is by formation of rank. The following depicts the most commonly found hierarchical structure. At the top are the administrators, which cover the ranks of Chief or Commissioner, Deputy Chief/Commissioner, Assistant Chief/Commissioner, Commander, and are often referred to as "Command Level" personnel and are incorporated as ACPO ranks (Association of Chief Police Officers). Chief Superintendents and Superintendents form the next layer in the command structure. Next are the ranks of Chief Inspector and Inspector and are often called "Middle Level Management" personnel. Next is the rank of Sergeant, which is referred to as "Supervisor Level Management" personnel. Finally, officers or constables are referred to as "Front Line" personnel.

The prefix detective is given to police officers who have been assigned to investigative work after completing the appropriate selection and training. Detective ranks parallel
uniformed ranks and range from Detective Constable to Detective Chief Superintendent.

The Police staff has a structure similar to those working in other government departments. Typically a system which is based either on numbered grades or on pay bands allied to specific job descriptions is used.

6.1.4 Policies

The participating Anon Force has a comprehensive set of policies and procedures pertaining to the management of its police officer and police staff personnel. The attendance management policy is particularly relevant to the management of long term sickness absence and return to work outcomes. This is now discussed.

6.1.4.1 Attendance Management Policy and Procedures

The Attendance Management Policy (AMP) provides guidance and advice for police officers and police staff who are sick and for line managers, countersigning managers, unit heads and HR units about the management of sickness absence and recuperation of staff who have been sick or injured.

The aim of the policy is to provide a standardised means of reporting, recording and managing sickness absence. It aims to ensure that all police officers and police staff who are sick or injured receive appropriate support during their absence and subsequent return to work or medical retirement. The policy aims to ensure that all police officers and police staff have access to the full range of the Force's mechanisms.

The AMP states that in cases where any member of the force is unable to attend work for reasons of illness or injury, the Force will ensure that:

1. Individuals will be treated with sympathy and understanding and in complete confidence with regard to matters relating to ill health or injury;
2. Sick leave must be calculated in calendar days not working days;
3. All staff who are absent through sickness are required to account for their absence;
4. A return to work interview must be undertaken;
5. A case review will take place when any individual reaches four periods or more of
6. Sickness absence as cumulative totals may have an impact on an individual's pay and development opportunities; and

7. Attendance at work is a criterion to be applied in all processes relating to promotion, selection, transfer, posting, secondment, attachments and extensions of service beyond normal retirement age (Metropolitan Police, 2004).

The primary benefits of applying the AMP are noted to be the demonstration to police officers and police staff that they are valued, by giving them support during sickness absence or recuperation, and the minimisation of abstraction from duty/work.

The AMP policy provides a framework for the reporting, recording and monitoring of absence through sickness. It sets out mandatory minimum standards in this area. These are summarised below and apply to both police officers and police staff unless specified.

<table>
<thead>
<tr>
<th>Day</th>
<th>Individual</th>
<th>1st Line Manager</th>
<th>Personnel manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>• Report sick to designated contact point</td>
<td>• Complete appropriate forms</td>
<td>• Ensure sickness file is updated</td>
</tr>
<tr>
<td></td>
<td>• Provide appropriate information</td>
<td></td>
<td>• Monitor cumulative absence and pay issues</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Advise individual and line manager of relevant issues</td>
</tr>
<tr>
<td>Days 2 - 27</td>
<td>• Maintain contact with 1st line manager</td>
<td>• Contact the individual in person within 2 days and discuss absence and return date</td>
<td>• Ensure sickness file is updated</td>
</tr>
<tr>
<td></td>
<td>• Forward medical certificates as appropriate</td>
<td>• Identify any emerging trends in sickness absence and take action if necessary</td>
<td>• Monitor contact and home visit</td>
</tr>
<tr>
<td></td>
<td>• Manage return to fitness as advised by health professional</td>
<td>• Review and update sickness file</td>
<td>• Advise/support line manager (incl. issues of recuperative/ restrictive duties)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Consult Occupational Health Advisor (OHA) and personnel manager as necessary</td>
<td>• Maintain contact with OHA if case referred</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Maintain weekly telephone contact; advise individual of their responsibility regarding medical certificates and maintaining contact; discuss return date</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Consider recuperative/restrictive duties</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ensure home visit is made before the 25th day</td>
<td></td>
</tr>
<tr>
<td>Day Range</td>
<td>Individual</td>
<td>1st Line Manager</td>
<td>Personnel manager</td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Days 28-100</td>
<td>Maintain contact with 1st line manager and attend case conference as appropriate</td>
<td>Ensure case conference is held at 40 days</td>
<td>Maintain contact with OHA if case referred &amp; provide appropriate reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consider pay issues</td>
<td>Hold case conference at 40 days; record discussion &amp; agreed actions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Liaise with OHA and personnel manager</td>
<td>Ensure agreed actions at case conference are undertaken</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consider recuperative/ restrictive duties &amp; support</td>
<td>Advise police officers of Regulation 46 issues and their right to make representations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintain record of contact</td>
<td>By 80 days raise OG46 docket for police officers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Update sickness file</td>
<td>Advise/support line manager (incl. issues of recuperative/ restrictive duties)</td>
</tr>
<tr>
<td>Days 101-183</td>
<td>Maintain contact with 1st line manager</td>
<td>Consider recuperative/ restrictive duties</td>
<td>Deal with pay issues</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintain contact at least fortnightly</td>
<td>For police officers, send OG46 docket to Unit Commander with full report and all relevant documentation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Update sickness file</td>
<td>Advise/support line manager (incl. issues of recuperative/ restrictive duties)</td>
</tr>
<tr>
<td>Day 184+</td>
<td>Maintain contact with 1st line manager</td>
<td>Consider recuperative/ restrictive duties</td>
<td>Maintain contact with OHA if case referred and provide appropriate reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintain contact at least fortnightly</td>
<td>Maintain contact with OHA if case referred and provide appropriate reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Update sickness file</td>
<td>Maintain contact with OHA if case referred and provide appropriate reports</td>
</tr>
<tr>
<td>Return to Work</td>
<td>Inform designated contact point of fitness to return to work</td>
<td>Conduct return to work interview on the first day of RTW and ensure individual is fit to RTW</td>
<td>Ensure return to work interview has been conducted effectively and documented appropriately</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Update sickness file and duty states</td>
<td>Advise/support line manager (incl. issues of recuperative/ restrictive duties)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maintain contact with OHA if case referred and provide appropriate reports</td>
</tr>
</tbody>
</table>
Some of the summary entries above require expansion. The detailed policy refers to the following:

- For the purposes of the AMP the title 1st line manager is defined as sergeants and grade 10's and above. First line managers are expected to be fully conversant with the AMP, their responsibilities under health and safety legislation and the procedure for investigating and reporting injuries on duty.

- First line managers are primarily responsible for the monitoring of sickness within their team/unit. An individual can certify themselves sick and remain absent from work for seven calendar days or less. After that period a medical certificate is required.

- First line managers must keep in touch with staff who are absent through sickness to let them know they are missed, to ensure they receive the support they require and to ease their return to work, recording all contact in the sickness file. This contact includes home visits as appropriate.

- First line managers should not delay referral to the occupational health unit (via Personnel) in cases where prompt treatment may ease a full recovery and return to work. Swift access to support programmes such as early intervention, rehabilitation, physiotherapy and treatment including the Spend to Save Scheme should be encouraged. The Spend to Save Scheme was introduced in 1999 to enable personnel to obtain MRI scans and orthopaedic opinions quickly, via the private sector, in order to make considerable notional savings in reducing time off sick.

The scheme has since been extended to where the cost of private treatment is significantly less than the notional savings of sick pay while awaiting treatment. This is highly appropriate in cases where a member of staff is injured in the execution of their duty and is then faced with a very long NHS waiting list for treatment.

- The occupational health unit provides support and assistance to managers and individuals on the issue of attendance management. Occupational health advisors (OHAs) are able to advise and help with long term absences and those with the potential to become long term, with a view to supporting an individual’s return to work. With the prior consent of the individual, the OHA’s will liaise with GP’s and
specialists. They will refer individuals to the force’s rehabilitation services, counsellors or medical officers. They will ensure that they maintain contact with the individual and line and personnel managers and provide them with regular updates.

Police officers may be referred by their OHA or a medical officer to the force’s rehabilitation centre. This centre offers intensive non invasive treatments for musculo skeletal problems.

- A case conference must be held for any individual who has been absent for, or where it is anticipated they will be absent for 40 days continuous sickness absence. Following the initial case conference, the case must be reviewed on a formal basis every three months thereafter. The case conference should provide an opportunity to review the absence of the individual, their progress towards recovery and the support provided to the individual by the force. The case conference should be attended by the individual’s line manager, personnel manager and the OHA. The individual concerned should be invited and encouraged to attend the conference, although attendance for the individual is not compulsory. A plan detailing what actions need to be progressed, by whom and within what timescales should be agreed and a copy given to the individual.

- Keeping in touch with absent colleagues is very important. This means more than just a weekly telephone call. There is ample evidence to show that people who are absent through sickness return to work more quickly if they are kept in touch with what is going on. They will find the return less of an ordeal if they already know about some of the things that have happened while they have been away.

First line managers should consider visiting any member of staff absent through sickness or injury at the earliest opportunity. In any event they must visit a member of staff before they have reached 28 days. The visit should be used to: establish how the individual’s recovery is progressing; discuss any concerns they may have about their absence from work; review what support can be provided to them; and whether the use of recuperative duties to ease a return to full duty is appropriate.

First line managers should be aware that not all individuals will welcome a visit to their home. When an individual expresses concern at the prospect of such a visit,
the line manager should be sensitive to these concerns and make alternative arrangements such as meeting in a different location.

Keeping in personalised touch with absent colleagues should be supplemented by the post. First line managers should ensure that publications such as The Job and Notices, which are useful in keeping up-to-date and in touch with what is happening in the force, are sent to individuals who are absent on a long term basis.

- For police staff, reductions in pay are made on the basis of cumulative sickness absences in a time specified rolling period. Police staff who are liable to have their pay reduced or stopped due to sickness absence are entitled to apply for an extension of up to 40 days' pay. An additional 20 days' pay may be granted for ongoing treatment for the original illness.

- For police officers, Regulation 46 of the Police Regulations 1995 provides for the reduction or stopping of an officers pay during sickness absence, subject to the discretion of the Assistant Commissioners (AC's). Although there is no presumption that the AC's discretion will be exercised in favour of an individual officer, the rationale underpinning the discretion to extend pay is that police officers, by nature of their job, are exposed to certain unique risks and hazards. If such risks materialise in a particular case, the officer should not suffer further through a reduction or loss of pay.

If on any relevant day a police officer has, during the period of 12 months ending with that day been on sick leave for 183 days, s/he ceases for the time being to be entitled to full pay, and becomes entitled to half pay, while on sick leave. If on any relevant day a police officer has been on sick leave for the whole of the period of 12 months ending with that day, s/he ceases for the time being to be entitled to any pay while on sick leave.

When an officer is approaching 80 calendar days' sickness in one continuous absence in a 12 month rolling period and it is expected that they will incur at least 183 days in the 12 months period under review, the personnel manager is required to raise the appropriate file, OG46, advise the line manager, and advise the police officer of the pay issues and establish if they wish to make oral/written representation at the pay review. The AC will consider the application and decide
on whether full or half pay should be extended.

- First line managers have a responsibility to conduct an interview with any individual returning to work from sickness absence on the first day they return to work, regardless of the duration of the absence. This is a critical step in attendance management and has been shown to be "the key instrument to translate management concerns and information into effective actions, thereby reducing sickness absence levels" (p. 35, HMIC, 1997). The purpose of the interview is to: confirm the reason for the absence; ensure the person is fit to RTE; ensure that they know they have been missed; demonstrate concern for their health; provide an opportunity to identify any health, domestic, welfare or work related problems; and update the individual on events that may have happened in the workplace during their absence.

- Recuperative duties should be considered when an individual recovering from a long term illness or injury is not fit for full duties but would benefit from being eased back into the workplace as part of a planned short term programme of work. Recuperative duties may entail a reduction in hours or could involve a complete change of duties. In all cases, the OHA will consult either the line manager or personnel manager before discussing the possibility of recuperative duties with the individual.

The attendance management policy of the Anon Force provides comprehensive coverage of how to report, record and manage sickness absence. It sets standards in respect of attendance management, establishing a framework for police officers and police staff who are sick and for line managers about the management of sickness absence and recuperation of staff who have been sick or injured (Special Notice 15/01, 2001).
7.0 CHAPTER 7 STUDY ONE - QUANTITATIVE

7.1 INTRODUCTION

The RTW research literature has identified over one hundred variables related to RTW outcomes and while a very few, such as age, are consistently (Krause et al, 2001a; Cheadle et al, 1994) although not universally (Gatchel et al, 1995) found to be predictors of RTW, for the majority, the results are very mixed (Selander et al, 2002). Moreover, there are relatively few studies addressing LTSA and RTW in the UK labour market and more specifically within the policing environment.

The aim of Study One is to establish regularities and patterns in LTSA among the occupationally diverse Anon Force. In doing so, this study will substantiate the presence of any objectively determined individual domain barriers to RTW and predictors of RTW outcome and establish the phase specificity of any risk factors of prolonged work disability. Although many studies have investigated factors that predict RTW outcome: most have been limited to a single outcome measure and have not taken account of disability phases and this can affect their ability to detect risk factors which are predominately associated with certain phases of the disability process; have either excluded injury/illness type as a potential predictor of RTW or focused on a specific type of injury and therefore have not been able to isolate the impact of injury type on RTW outcomes and duration/absence phase of LTSA; or have used relatively small samples. Moreover, factors associated with RTW have tended to be examined in a univariate fashion and have not been examined simultaneously to ascertain their relative impacts within two distinct populations from the one employer.

The present study utilises the measures of RTW outcome, absence phase and duration of LTSA episodes to study two distinct working populations within the same working environment. Using the administrative database of the Anon Force, Study One aims to identify those individual domain variables which acted as barriers to RTW in injured/ill police officers and police staff.

The three research questions Study One addresses are:

1. Does Type of Illness/Injury (15 ICD categories\(^1\)), Sex (M, F), Job Grade (Senior management, Middle management, Supervisor/Lower level staff, Lowest

\(^1\) Absences are grouped into 15 categories based on the International Classification of Diseases (ICD) 8\(^{th}\) edition (WHO, 1992-94). See Appendix 3.
level staff), Job Role (sedentary, physical), LTSA history (1 to 5 episodes of LTSA during the study period), affect the frequency of returning or not returning to work or the absence phase for police officers and police staff?

2. Are Type of Illness/Injury (15 ICD categories), Sex (M, F), Job Grade (Senior management, Middle management, Supervisor/ Lower level staff, Lowest level staff), Job Role (sedentary, physical), LTSA history (1 to 5 episodes of LTSA during the study period), predictive of RTW outcome or absence phase for police officers or police staff?

3. Are Type of Illness/Injury (15 ICD categories), Sex (M, F), Job Grade (Senior management, Middle management, Supervisor/ Lower level staff, Lowest level staff), Job Role (sedentary, physical), LTSA history (1 to 5 episodes of LTSA during the study period), associated with different lengths of absence for police officers or police staff?

7.2 METHODS

7.2.1 Sample

The data for this study were derived from the computerised personnel absenteeism records of the Anon Force. The Anon Force is responsible for managing and delivering metropolitan policing. It employs over thirty six thousand staff: (= 25,500) police officers and (= 11,000) police staff2 (or civilians)3. Police officers are primarily engaged in the job of delivering front line policing, which covers a broad range of law enforcing activities. Police staff are primarily engaged in office and industrial or allied policing roles that provide support to the policing function.

The sample comprised all employees of the Anon Force who had one or more episodes of LTSA between 1 November, 2000 and 31 October, 2002 (inclusive). The database provided details of the following demographic and job characteristics for all staff; sex, staff type4 and rank/grade. Police officers totalled 4485 and Police Staff 1761, as shown in Table 7.1a. The male-female split for police officers was 78/22 per cent while for police staff it was 29/71 per cent.

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2 Police staff is the term used for civilians.
3 At the time of collecting data for the present study, traffic wardens were a separate functional unit. From mid 2003, they were migrated into the civilian staff and are now classified as police staff. They were excluded from the present research due to the very small numbers.
4 Police officers or police staff (civilians).
Table 7.1a Summary of LTSA Group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Police Officers</th>
<th>Police Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3519</td>
<td>78.5</td>
</tr>
<tr>
<td>Female</td>
<td>966</td>
<td>21.5</td>
</tr>
<tr>
<td>Total</td>
<td>4485</td>
<td>100.0</td>
</tr>
<tr>
<td>Job Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Middle</td>
<td>186</td>
<td>4</td>
</tr>
<tr>
<td>Supervisor/Lower</td>
<td>566</td>
<td>12.8</td>
</tr>
<tr>
<td>Lowest</td>
<td>3723</td>
<td>83</td>
</tr>
</tbody>
</table>

The sample was derived in the following manner. Initially, all recorded sickness absence episodes in the Anon Force from 1 November, 2000 to 31 October, 2002 were categorised into four groups based on their duration: ≤2 days; 3-7 days; 8 to 27 days; or 28+ days (LTSA). There were 90,040 sickness absence episodes for this period, of which 38.77 per cent lasted 2 days or less, 33.41 per cent lasted between 3 and 7 days, 18.68 per cent lasted between 8 and 27 days, and only 9 per cent lasted 28 or more consecutive days (20 working days). In contrast, of the 1,119,784 calendar days lost for the same period, only 4 per cent were for episodes of 2 days or less, 30 per cent were for episodes of 3 to 7 days and 8 to 27 days collectively, while 66 per cent were for episodes lasting 28+ consecutive days.

Data for the 28+ days group (LTSA) were then isolated and converted into a new dataset comprising 6257 employees. Cases were then grouped according to staff type and RTW/Not RTW. During this process, eleven cases were found to have been incorrectly classified into the LTSA group, two being duplications and nine who had RTW within 28 days but had not had their end dates entered into the system. These cases were deleted, leaving the new dataset with 6246 cases. All cases were then checked to ensure that they were correctly classified according to their RTW/Not RTW status. Two hundred and one cases were incorrectly categorised as having RTW when they should have been in the Not RTW group. Cases were redistributed according to whether they had a return to work date on or before 31 October 2002.

Finally, within the dataset, 771 recorded absence episodes had starting dates prior to the commencement of the study period. For these episodes, the counting of calendar days lost began on 1 November 2000. Similarly, for the 714 cases who had not RTW by the end of the study period, 31 October, 2002 was the last calendar day counted.
To derive a comparable No LTSA group that could be used to establish the rates of LTSA within the Anon Force (for officers and civilian staff), data were obtained from the Anon Force Workforce Planning Unit. A dataset was established that represented the workforce strength\(^5\) for the study period. The Anon Force strength data showed that for the study period, the total population was 36,876; 26,401 police officers and 10,475 police staff. The No LTSA figures for the two staff type groups were then calculated by subtracting the LTSA group data from the relevant workforce subgroup, as shown in Table 7.1b.

<table>
<thead>
<tr>
<th>Staff Type</th>
<th>Police Officers</th>
<th>Police Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Total</td>
<td>21,916</td>
<td>8,714</td>
</tr>
</tbody>
</table>

* Data period 1.11.2000 to 31.10.2002

### 7.2.2 Measures

**Measurement of Predictor Variables**

The organisation's data base enabled the following predictor variables to be extracted: sex, rank/grade, injury/illness type, and number of episodes of long term sickness absence per person. Retrieved details reflected the person's circumstances at the beginning of an absence period. So, for example, an entry for a diagnosis would reflect the diagnosis at the beginning of the absence period and remain so, even if it changed during the absence period.

In addition to the available predictor variables, two further variables, Job Grade and Job Role were generated. In order to obtain the variable Job Grade, ranks/grades were collapsed into four levels to reflect the broad hierarchical levels within an organisation. Uniformed and CID police officers were joined and grouped as follows: Senior Management combined the ranks of Commander and above, Chief Superintendent and Superintendent; Middle Management combined the ranks of Chief Inspector and Inspector; Supervisor/Lower comprised Sergeants; and Lowest comprised Constables. Police staff were grouped similarly: Senior Management combined grades 8 and above; Middle Management combined grades 9 and 10; Supervisor/Lower combined grades 11 to 13; and Lowest were the Industrial posts.

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\(^5\) Workforce Planning has two sets of data pertaining to the Anon Force, one is the Balanced Workforce Target (BWT) which is the force strength being aimed for (sometimes referred to as Establishment strength), and the other is the workforce strength, which is the actual number of people in posts (excluding those on a career break)
For the variable Job Role, each staff type was collapsed into two levels of job role to reflect the distinction of relatively greater or lesser degrees of physical activity. In the case of Police Officers this job role divide is between uniformed officers and non uniformed officers (CID). Although both execute tasks that encompass varying degrees of physical activity, the balance for uniformed officers is physical, active demands while the balance for non uniformed officers is sedentary. For Police Staff this job role distinction is between office based staff, for which the balance is sedentary, and industrial and allied policing staff, for which the balance is physical, active demands.

There were two main limitations of the database. First, important information such as age, marital status, education, family circumstances, and whether the worker had received a reduced income after 180 days were not available. Second, there was a lack of information about illness/injury. While diagnosis was captured no other medical information was. There was no data on injury severity, treatments provided, ongoing medical status or changes in diagnosis to show secondary conditions.

**Measurement of Outcome Variables**

The organisation's data base enabled the following outcome data to be extracted: start and finish dates of all long term sickness absences and number of calendar days lost for each episode of absence. These data were used to form three outcome measures: RTW Outcome, Absence Phase and Calendar Days Lost (CDL).

RTW outcome was operationalised as the return to work or not return to work for that episode of LTSA by the end date of the study period. Absence Phase was operationalised by applying a disability phase specific approach to the duration of absence (Krause and Ragland, 1994). The sub acute phase was defined as continuous work disability (absence) of 28 to 90 days, and the chronic phase was defined as continuous work disability (absence) of 91+ days. CDL was operationalised as the total number of unbroken consecutive calendar days off work calculated from the date of injury/illness onset.

**7.2.3 Procedure**

The Anon Force was written to in October 2001 asking for a meeting to discuss the possibility of doing the research on the force. Eight meetings were held between October 2001 and June 2002 about the proposed research and permission was
Barriers and Enablers to RTW from LTSA

Chapter 7 Study One Quantitative

granted to undertake the research in June 2002. A further five months elapsed before access to databases and supporting documentation on relevant HR policies was possible.

7.2.4 Data Analyses

All data was migrated from the Anon Force system into SPSS. Statistical tests were performed in SPSS 10 for Windows.

7.3 RESULTS

7.3.1 Descriptive Analyses

Table 7.2 presents a summary of the descriptive data on the LTSA group and comparative rates with the No LTSA group. Police officers and police staff experienced extremely similar rates of LTSA. Chi squared analyses confirmed there was no association between staff type and rate of LTSA. In terms of the LTSA sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Police Officers</th>
<th>Police Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTSA Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No LTSA</td>
<td>21916 84%</td>
<td>8714 84%</td>
</tr>
<tr>
<td>LTSA</td>
<td>4485 16%</td>
<td>1761 16%</td>
</tr>
<tr>
<td>LTSA Staff type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Police Officers</td>
<td>4485 71.8%</td>
<td>1761 28.2%</td>
</tr>
<tr>
<td>Police Staff</td>
<td>3986 89%</td>
<td>1570 89%</td>
</tr>
<tr>
<td>RTW Outcome x</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Absence Episodes</td>
<td>≤ 90 CDL (sub acute)</td>
<td>3775 69.5%</td>
</tr>
<tr>
<td>Phase</td>
<td>≥ 91 CDL (chronic)</td>
<td>1654 31.5%</td>
</tr>
<tr>
<td>CDL*</td>
<td>531484 73.75%</td>
<td>189211 26.25%</td>
</tr>
<tr>
<td>Illness/Injury x</td>
<td>Musculoskeletal</td>
<td>2533 46.6%</td>
</tr>
<tr>
<td>Episode</td>
<td>Mental III Health</td>
<td>1078 19.8%</td>
</tr>
<tr>
<td>‘Other’</td>
<td>927 17.1%</td>
<td>498 23.9%</td>
</tr>
<tr>
<td>All other’s total</td>
<td>891 16.5%</td>
<td>593 28.2%</td>
</tr>
<tr>
<td>CDL* x</td>
<td>Musculoskeletal</td>
<td>216573 40.7%</td>
</tr>
<tr>
<td>Illness/Injury</td>
<td>Mental III Health</td>
<td>170428 32.1%</td>
</tr>
<tr>
<td>Injury</td>
<td>‘Other’</td>
<td>69799 13.1%</td>
</tr>
<tr>
<td>All other’s total</td>
<td>74684 14.0%</td>
<td>49195 26.0%</td>
</tr>
</tbody>
</table>

* Calendar Days Lost  * Significant difference (p< 0.01) between the two staff type on the illness/injury rates

eighty nine per cent of both police officers and police staff RTW from LTSA during the study period. Approximately two thirds of both police officers and police staff had
absence episodes that remained within the sub acute phase while roughly a third entered the chronic phase.

During the two year study period a total of 3203 work years were lost on LTSA. Musculoskeletal, followed by mental ill health and 'Other' diagnoses, were the most frequently occurring illness/injury categories. Together they accounted for 83 per cent of all police officer episodes and 72 per cent of all police staff episodes of LTSA for the study period. Musculoskeletal diagnoses were the most common in both staff groups while mental ill health diagnoses accounted for a relatively higher number of CDL in both groups. Statistical analyses using the chi squared test were conducted to analyse the associations between illness/injury rates and staff type. Staff type differed significantly on all rates of illness/injury. Police staff had relatively significantly higher rates of MIH and ‘Other’ while police officers had relatively significantly higher rates of musculoskeletal.

7.3.2 Statistical Analyses
Does Type of Illness/Injury (15 ICD categories), Sex (M, F), Job Grade (Senior management, Middle management, Supervisor/Lower level staff, Lowest level staff), Job Role (sedentary, physical), LTSA history (1 to 5 episodes of LTSA during the study period), affect the frequency of returning or not returning to work and absence phase for police officers and police staff?

A series of chi squared analyses were conducted to analyse the between and within group associations. Tables 7.3 and 7.4 present the between group analyses while Tables 7.5 and 7.6 present the within group analyses.

Between Group Analyses x RTW/Not RTW

Staff Type
Comparing the rate of RTW of police officers and police staff, there was no significant difference in the observed frequencies and those expected. Police officers and police staff RTW at a strikingly similar rate.

Type of Illness
Comparing the RTW rates of officers and staff for each of the 15 illness/injury

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6 ‘Other’ sickness category covers a broad range of entries including Unspecified Absence Illness, Unspecified Injury Illness, hospital treatment/tests, operations and post operative care.
categories revealed no significant differences in the observed frequencies and those expected. Police officers and police staff RTW at statistically equivalent rates within each of the 15 diagnostic categories.

Sex
RTW rates for males and females were compared for the sample as a whole and revealed no significant difference.

Males
RTW rates for the male subgroups of police officers and police staff were compared for any differences and were found to be statistically equivalent.

Females
RTW rates for the female subgroups of police officers and police staff were compared for any differences and were found to be statistically equivalent.

Job Grade
The lowest, supervisor and middle job grades for police officers and police staff were compared for any differences in RTW rates. No significant differences were observed. However the RTW rate for the lowest grade just failed to reach significance, with police staff showing a lower rate of return to work compared to police officers.

Job Role
Within the sedentary job role category a significant association was found between RTW outcome and the two staff type. A review of the contingency tables indicated that police officers in the sedentary role category (CID) had a lower RTW rate compared to police staff in the sedentary category (office workers).

Within the physical job role category no significant association was found between RTW outcome and the two staff type. However a review of the contingency tables indicated that the association just failed to reach significance and that police staff in the physical job role category (Industrial) had a lower RTW rate compared to police officers in the physical job role category (uniformed officers).

Further analysis to examine males and females separately within the two job role categories revealed significant differences between the observed and expected RTW frequencies for both staff types and for males only. A review of the contingency
### Table 7.3 Between Group Associations x RTW/Not RTW

<table>
<thead>
<tr>
<th>Variable</th>
<th>Police Officers</th>
<th>Police Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RTW</td>
<td>Not RTW</td>
</tr>
<tr>
<td><strong>Staff type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Police Officers</td>
<td>Police Staff</td>
</tr>
<tr>
<td>RTW (89%)</td>
<td>3986</td>
<td>499 (11%)</td>
</tr>
<tr>
<td>Not RTW (89%)</td>
<td>1969 (88.7%)</td>
<td>1570 (89%)</td>
</tr>
<tr>
<td><strong>Sex (All)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>RTW 3587 (89.1%)</td>
<td>Not RTW 440 (10.9%)</td>
</tr>
<tr>
<td></td>
<td>191 (11%)</td>
<td>191 (11%)</td>
</tr>
<tr>
<td>Female</td>
<td>RTW 1969 (88.7%)</td>
<td>Not RTW 250 (11.3%)</td>
</tr>
<tr>
<td></td>
<td>20 (11%)</td>
<td>20 (11%)</td>
</tr>
<tr>
<td><strong>Job Grade</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>10 (100%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Middle</td>
<td>159 (85.5%)</td>
<td>27 (14.5%)</td>
</tr>
<tr>
<td>Supervisor/Lower</td>
<td>505 (89%)</td>
<td>61 (11%)</td>
</tr>
<tr>
<td>Lowest</td>
<td>3312 (89%)</td>
<td>411 (11%)</td>
</tr>
<tr>
<td><strong>Job Role</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedentary</td>
<td>587 (85.7%)</td>
<td>98 (14.3%)</td>
</tr>
<tr>
<td>Physical</td>
<td>3399 (89.4%)</td>
<td>401 (10.6%)</td>
</tr>
<tr>
<td><strong>Job Role</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedentary</td>
<td>456 (85%)</td>
<td>81 (15%)</td>
</tr>
<tr>
<td>Male</td>
<td>2683 (90%)</td>
<td>299 (10%)</td>
</tr>
<tr>
<td>Physical</td>
<td>716 (87.5%)</td>
<td>102 (12.5%)</td>
</tr>
<tr>
<td><strong>LTSA Episode</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History</td>
<td></td>
<td></td>
</tr>
<tr>
<td>one</td>
<td>3380 (91.5%)</td>
<td>315 (8.5%)</td>
</tr>
<tr>
<td>two</td>
<td>523 (79.1%)</td>
<td>138 (20.9%)</td>
</tr>
<tr>
<td>three</td>
<td>72 (66.7%)</td>
<td>36 (33.3%)</td>
</tr>
</tbody>
</table>

tables indicated that male police officers in the sedentary job role category had a lower RTW rate compared to the equivalent male police staff subgroup while male police staff in the physical job role category had a lower RTW rate compared to police staff.
officers in the comparable group.

LTSA Episode History
Comparing the rate of RTW for police officers and police staff in the first, second and third episode of LTSA revealed that there were no significant differences in the observed frequencies and those expected. Police officers and police staff RTW at comparable rates within each episode.

Summary of Between Group Analyses x RTW Outcome
The between group analyses showed these noteworthy findings between the two staff type with respect to RTW outcome:
- staff type, i.e. being a police officer and police staff, did not affect RTW rates,
- type of illness did not affect RTW rates between the two staff type,
- sex did not affect the RTW rates for the sample as a whole,
- police officers in the sedentary job role category (CID) had a significantly lower RTW rate compared to police staff in the sedentary category (office workers),
- male police officers in the sedentary job role category and male police staff in the physical job role category had significantly lower RTW rates relative to the comparative groups.

Between Group Analyses x Absence Phase

Staff Type
The distribution of police officers and police staff across absence phases were compared and no significant difference in the observed frequencies and those expected was found.

Type of Illness
The proportion of officers and staff across absence phases were compared for each of the 15 illness/injury categories and revealed one significant difference. Officers were significantly overrepresented in the chronic absence phase for MIH relative to police staff.

Sex
The proportion of males and females within the absence phases were compared for the sample as a whole and revealed no significant difference.
Males
Male subgroups of police officers and police staff were compared for any association with absence phases and were found to be statistically equivalent.

Females
Female subgroups of police officers and police staff were compared for any association with absence phase and found to be significant. A review of the contingency tables revealed that female police officers were significantly overrepresented in the chronic absence phase relative to police staff.

Job Grade
The lowest, supervisor and middle job grades for police officers and staff were compared for any association with absence phase. No significant differences were observed. However an association with the lowest grade (Industrial) just failed to reach significance, with staff showing a relatively higher presence in the chronic phase compared to officers.

Job Role
Within the sedentary job role category a significant association was found between absence phase and the two staff types. A review of the contingency tables indicated that police officers in the sedentary role category (CID) had a disproportionately high representation in the chronic phase compared to police staff in the sedentary category (office workers).

Similarly, within the physical job role category a significant association was found between absence phase and the two staff types. The contingency tables revealed that police staff in the physical job role category (Industrial) had a disproportionately high representation in the chronic absence phase compared to police officers in the physical job role category (uniformed officers).

Further analysis to examine males and females separately within the two job role categories revealed significant differences between the observed and expected RTW frequencies for male and female police officers in the sedentary category. Both subgroups had disproportionately high representations in the chronic absence phase compared to police staff in the comparable group (office workers).
Table 7.4 Between Group Associations x Absence Phase

<table>
<thead>
<tr>
<th>Variable</th>
<th>Police Officers</th>
<th>Police Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sub Acute</td>
<td>Chronic</td>
</tr>
<tr>
<td>Absence Phase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff type</td>
<td>3047 (87.9%)</td>
<td>1438 (32.1%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 1.65, df=1, p=0.19$</td>
<td></td>
</tr>
<tr>
<td>Type of MIH</td>
<td>373 (43.2%)</td>
<td>491 (56.8%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 28.92, df=1, p&lt;0.001$</td>
<td></td>
</tr>
<tr>
<td>Sex (All)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>Sub acute</td>
<td>2775 (68.9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female Sub acute</td>
<td>1498 (67.5%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 1.30, df=1, p=0.25$</td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>2425 (68.9%)</td>
<td>1094 (31.1%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 0.00, df=1, p=0.995$</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>622 (64.4%)</td>
<td>344 (35.6%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 7.65, df=1, p=0.005$</td>
<td></td>
</tr>
<tr>
<td>Job Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>8 (80%)</td>
<td>2 (20%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 0.09, df=1, p=0.76$</td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>125 (67.2%)</td>
<td>61 (32.8%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 0.92, df=1, p=0.34$</td>
<td></td>
</tr>
<tr>
<td>Supervisor/Lower</td>
<td>389 (68.7%)</td>
<td>177 (31.3%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 0.92, df=1, p=0.34$</td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>2525 (67.8%)</td>
<td>1196 (32.2%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 3.37, df=1, p=0.07$</td>
<td></td>
</tr>
<tr>
<td>Job Role</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedentary</td>
<td>421 (61.5%)</td>
<td>284 (38.5%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 18.61, df=1, p&lt;0.001$</td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>2626 (69.1%)</td>
<td>1174 (30.9%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 4.35, df=1, p=0.05$</td>
<td></td>
</tr>
<tr>
<td>Job Role</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedentary</td>
<td>329 (61.3%)</td>
<td>208 (38.7%)</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 7.88, df=1, p=0.01$</td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>2096 (70.3%)</td>
<td>886 (29.7%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 1.79, df=1, p=0.18$</td>
<td></td>
</tr>
<tr>
<td>Job Role</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedentary</td>
<td>92 (62.2%)</td>
<td>56 (37.8%)</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 4.89, df=1, p=0.05$</td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>530 (64.8%)</td>
<td>288 (35.2%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 3.31, df=1, p=0.05$</td>
<td></td>
</tr>
<tr>
<td>LTSA Episode History</td>
<td></td>
<td></td>
</tr>
<tr>
<td>one</td>
<td>2450 (66.3%)</td>
<td>1245 (33.7%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 2.12, df=1, p=0.14$</td>
<td></td>
</tr>
<tr>
<td>two</td>
<td>490 (74.1%)</td>
<td>171 (25.9%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 0.03, df=1, p=0.84$</td>
<td></td>
</tr>
<tr>
<td>three</td>
<td>87 (80.6%)</td>
<td>19 (19.4%)</td>
</tr>
<tr>
<td></td>
<td>$\chi^2 = 1.05, df=1, p=0.30$</td>
<td></td>
</tr>
</tbody>
</table>

LTSA Episode History

Police officers and police staff did not differ significantly in their representation across
the two absence phases in the first, second or third episode of LTSA.

Summary of Between Group Analyses x Absence Phase
The between group analyses showed these noteworthy findings between the two staff type with respect to absence phase:

- police officers and police staff were statistically equivalent in terms of their relative representation in the sub acute and chronic absence phases,
- police officers with MIH were significantly over represented in the chronic absence phase compared to police staff with MIH,
- as a whole males and females did not differ significantly in their relative representations within the absence phases. Female police officers however were significantly over represented in the chronic absence phase relative to female police staff,
- police officers in the sedentary job role category (CID) were significantly over represented in the chronic absence phase compared to police staff in the sedentary job role category (office workers),
- police staff in the physical job role category (Industrial) were significantly over represented in the chronic absence phase compared to police officers in the physical job role category (uniformed),
- male and female police officers in the sedentary job role category were significantly over represented in the chronic absence phase compared to police staff in the comparable gender groups.

Within Group Analyses x RTW/Not RTW

Tables 7.5 and 7.6 present the results of a series of chi square analyses conducted to identify the within group associations.

Type of Illness/Injury
For type of illness/injury, an initial Chi square analysis was conducted to determine if there was an association between any of the 15 sickness categories and RTW outcomes within the two staff types. For Police staff, there was no significant relationship between type of illness/injury and RTW outcome ($\chi^2=17.743$, df=14, p=.219). For Police Officers, there was a significant relationship between type of illness/injury and RTW outcome ($\chi^2=25.04$, df=14, p<.05). A review of the contingency table indicated that for the categories MIH and Neoplasms, actual frequencies in the Not RTW cells were significantly higher than the expected frequencies.
To further explore this, data was recoded into two new variables, no mental ill health / mental ill health and no Neoplasms / Neoplasms. For police officers, a significant association was found between mental ill health status and RTW outcome. Contingency tables indicated that police officers with a MIH diagnosis had a significantly lower RTW rate compared to police officers with no MIH diagnosis.
Similarly, a significant association was found between Neoplasms and RTW outcome. Contingency tables indicated that police officers with a Neoplasms diagnosis had a significantly lower RTW rate compared to police officers with no Neoplasms diagnosis.

Finally, MIH was examined for associations with sex, sex and RTW outcomes, job role, and job role and RTW outcomes, (cell sizes were too small to investigate Neoplasms). For police officers, a strong significant relationship was found between MIH and Sex ($\chi^2=20.291$, df=1, $p<0.001$). Contingency tables indicated that 24.3 per cent of female officers had a diagnosis of mental ill health compared with 17.9 of male officers. Despite this over representation, no relationship was found between Sex and RTW outcome, showing that female and male officers with MIH had equivalent RTW rates.

For police officers, job role was also found to have a significant association with MIH ($\chi^2=16.03$, df=1, $p<0.001$) with contingency tables indicating that 24.8 per cent of police officers in the sedentary category had a MIH diagnosis compared with 18.3 per cent of police officers in the physical category. For police officers, a significant relationship was also found between MIH, job role and RTW outcomes. Police officers in the sedentary category with MIH had a significantly lower RTW rate compared to police officers in the physical category with MIH.

Sex
RTW rates for males and females within both police officer and police staff groups were found to be statistically equivalent.

Job Grade
For both staff types, no association was found between Grade and RTW rate.

Job Role
Within police officers only, a significant association was found between Job Role and RTW outcome. A review of the contingency table revealed that police officers in the sedentary category had a significantly lower RTW rate compared with police officers in the physical category.

Further analysis to examine males and females separately within the job role variable revealed significant differences between the observed and expected RTW frequencies for male police officers in the sedentary category and male police staff in
the physical category. Both had significantly lower RTW rates relative to the comparable group.

LTSA Episode History
Within both staff type LTSA history was found to have a significant relationship with RTW outcome. A review of the contingency table revealed that for both populations for episode 1, the RTW rate was substantially higher than expected. However, for the remaining episodes, there was a progressive increase in the proportion of officers and staff who unexpectedly failed to RTW.

Summary of Within Group Analyses x RTW Outcome
The within group analyses showed these noteworthy findings within the two staff type with respect to RTW outcome:

- type of illness did not affect RTW rates within the police staff group,
- type of illness was associated with lower RTW rates within the police officer group. Police officers with MIH and Neoplasm diagnoses had significantly lower RTW rates compared to those without these diagnoses,
- female police officers had a significantly higher rate of MIH compared to male police officers but had equivalent RTW rates to male police officers with a MIH diagnosis,
- MIH was associated with a significantly lower RTW rate in police officers in the sedentary job role category compared to police officers in the physical category,
- sex did not affect RTW rates in either staff type. Males and females had statistically equivalent RTW rates in both groups,
- job grade did not affect RTW rates in either staff type,
- job role was significantly associated with RTW outcome. The sedentary job role category was associated with a lower RTW rate within the police officer group compared to the physical category; male officers in the sedentary job role category had a lower RTW rate than male officers in the physical category; and male police staff in the physical category had a lower RTW rate than male staff in the sedentary category,
- LTSA Episode History was associated with progressively lower RTW rates with the increasing number of episodes within both staff types.
Within Group Analyses x Absence Phase

Type of Illness/Injury

For type of illness/injury, an initial Chi square analysis was conducted within each staff type to determine if there was an association between any of the 15 sickness categories and Absence Phase. Both were highly significant. For Police staff there was an association between type of illness/injury and absence phase ($\chi^2=73.14$, df=14, $p<0.001$). For Police Officers, there was an association between type of illness/injury and absence phase ($\chi^2=353.47$, df=14, $p<.001$). A review of the contingency tables indicated that for both staff type, the categories of mental ill health and neoplasms had actual frequencies in the chronic cell that were nearly three times the expected frequencies.

The effect of these two illness categories on absence phase was investigated within the two staff type. For police officers and police staff, a significant association was found between mental ill health status and absence phase. Contingency tables indicated that MIH was significantly over represented in the chronic phase compared to no MIH. A similarly significant association was found between neoplasms and absence phase for police officers. For police staff there was insufficient data to perform a chi square. However frequency counts showed that 87.5 per cent of staff with Neoplasms fell into the chronic phase while only 29 percent of No Neoplasms fell in the chronic phase.

Finally, MIH was examined for associations with sex and absence phase, and job role and absence phase within both staff types (cell sizes were too small to investigate Neoplasms). No significant associations were found.

Sex

Sex and absence phase were found to be significantly associated in the police officer group only. Female officers were over represented in the chronic phase.

Job Grade

Job grade and absence phase were found to be significantly associated in the police staff group only. A review of the contingency table revealed that police staff in the lowest job grade (Industrial) were significantly over represented in the chronic phase.
### Table 7.6 Within Group Associations x Absence Phase

<table>
<thead>
<tr>
<th>Variable</th>
<th>Absence Phase</th>
<th>Police Officers</th>
<th>Police Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sub Acute</td>
<td>Chronic</td>
<td>Sub Acute</td>
</tr>
<tr>
<td><strong>Type of Illness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIH No</td>
<td>2674 (73.8%)</td>
<td>947 (26.2%)</td>
<td>991 (72.5%)</td>
</tr>
<tr>
<td>MIH Yes</td>
<td>373 (43.2%)</td>
<td>491 (56.8%)</td>
<td>235 (59.5%)</td>
</tr>
<tr>
<td>Neoplasms No</td>
<td>3040 (68.1%)</td>
<td>1422 (31.9%)</td>
<td></td>
</tr>
<tr>
<td>Neoplasms Yes</td>
<td>7 (30.4%)</td>
<td>16 (69.6%)</td>
<td></td>
</tr>
<tr>
<td><strong>MIH/No MIH</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>284 (45.2%)</td>
<td>345 (54.8%)</td>
<td>59 (57.8%)</td>
</tr>
<tr>
<td>Female</td>
<td>89 (37.9%)</td>
<td>146 (62.1%)</td>
<td>176 (60.1%)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>2425 (68.9%)</td>
<td>1094 (31.1%)</td>
<td>350 (68.9%)</td>
</tr>
<tr>
<td>Females</td>
<td>622 (64.4%)</td>
<td>344 (35.6%)</td>
<td>876 (69.9%)</td>
</tr>
<tr>
<td><strong>Job Grade</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>8 (80%)</td>
<td>2 (20%)</td>
<td>18 (78.3%)</td>
</tr>
<tr>
<td>Middle</td>
<td>125 (67.2%)</td>
<td>61 (32.8%)</td>
<td>198 (68.5%)</td>
</tr>
<tr>
<td>Supervisor/Lower</td>
<td>389 (68.7%)</td>
<td>177 (31.3%)</td>
<td>894 (71%)</td>
</tr>
<tr>
<td>Lowest</td>
<td>2525 (67.8%)</td>
<td>1198 (32.2%)</td>
<td>118 (61.5%)</td>
</tr>
<tr>
<td><strong>Job Role</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedentary</td>
<td>421 (61.5%)</td>
<td>264 (38.5%)</td>
<td>1071 (70.7%)</td>
</tr>
<tr>
<td>Physical</td>
<td>2826 (69.1%)</td>
<td>1174 (30.9%)</td>
<td>155 (62.8%)</td>
</tr>
<tr>
<td><strong>Job Role</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male Sedentary</td>
<td>329 (61.3%)</td>
<td>208 (38.7%)</td>
<td>298 (70%)</td>
</tr>
<tr>
<td>Physical</td>
<td>2096 (70.3%)</td>
<td>886 (29.7%)</td>
<td>52 (63.4%)</td>
</tr>
<tr>
<td>Female Sedentary</td>
<td>92 (62.2%)</td>
<td>56 (37.8%)</td>
<td>773 (71%)</td>
</tr>
<tr>
<td>Physical</td>
<td>530 (64.8%)</td>
<td>288 (35.2%)</td>
<td>103 (62.4%)</td>
</tr>
<tr>
<td><strong>LTSA Episode</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>one</td>
<td>2450 (66.3%)</td>
<td>1245 (33.7%)</td>
<td>1018 (68.4%)</td>
</tr>
<tr>
<td>two</td>
<td>490 (74.1%)</td>
<td>171 (25.9%)</td>
<td>175 (74.8%)</td>
</tr>
<tr>
<td>three</td>
<td>87 (80.6%)</td>
<td>21 (19.4%)</td>
<td>30 (88.2%)</td>
</tr>
</tbody>
</table>

* Inadequate cell sizes

**Job Role**

For both staff types a significant association was found between Job Role and absence phase. A review of the contingency tables revealed that police officers in the sedentary job category and police staff in the physical job category were significantly over represented in the chronic phase.
Further analysis to examine males and females separately within the job role variable revealed significant differences between the observed and expected frequencies for male police officers in the sedentary category and female police staff in the physical category. Both were significantly over represented in the chronic phase.

LTSA Episode History
Within both staff type LTSA episode history was found to have a significant association with absence phase. A review of the contingency table revealed that the chronic phase of episode 1 was significantly over represented in both groups and this trend reversed for Episodes 2 and 3.

Summary of Within Group Analyses x Absence Phase
The within group analyses showed these noteworthy findings within the two staff type with respect to absence phase:

- type of illness affected absence phase within both staff types. Police officers with MIH or Neoplasms and police staff with MIH were significantly over represented in the chronic phase compared to those without these diagnoses,
- sex did not affect absence phase among police officers or police staff with a MIH diagnosis,
- job role did not affect absence phase among police officers or police staff with a MIH diagnosis,
- sex was associated with absence phase in the police officer group only. Female officers were significantly over represented in the chronic phase compared to males,
- job grade was associated with absence phase in the police staff group only. Police staff in the lowest job grade (Industrial) were significantly over represented in the chronic phase,
- job role affected absence phase within both staff types. The sedentary job role category had a significant over representation of police officers in the chronic phase as did police staff in the physical category; and male police officers in the sedentary category and female police staff in the physical category were both significantly over represented in the chronic phase,
- for both staff types, LTSA Episode History was associated with absence phase. Police officers and police staff were significantly over represented in the chronic phase of episode 1 however this trend reversed for Episodes 2 and 3. This is contrary to the pattern that was observed with RTW outcome.
A summary of the between and within group associations are presented in Table 7.7.

### Table 7.7 Summary of Within and Between Group Associations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Between Group Associations</th>
<th>Absence Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RTW Outcome</td>
<td>Absence Phase</td>
</tr>
<tr>
<td>Staff type</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Type of Illness/injury</td>
<td>X</td>
<td>MIH Officers</td>
</tr>
<tr>
<td>Sex</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Male</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Female</td>
<td>X</td>
<td>Officers</td>
</tr>
<tr>
<td>Job Grade</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Job Role - Sedentary</td>
<td>Officers</td>
<td>Officers</td>
</tr>
<tr>
<td>- Physical</td>
<td>X</td>
<td>Staff</td>
</tr>
<tr>
<td>- Male Sedentary</td>
<td>Officers</td>
<td>Officers</td>
</tr>
<tr>
<td>- Male Physical</td>
<td>Staff</td>
<td>X</td>
</tr>
<tr>
<td>- Female Sedentary</td>
<td>X</td>
<td>Officers</td>
</tr>
<tr>
<td>- Female Physical</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>LTSA Episode History</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Within Group Associations</th>
<th>Police Officers</th>
<th>Police Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Police Officers</td>
<td>RTW Outcome</td>
<td>Absence Phase</td>
</tr>
<tr>
<td>Type of Illness</td>
<td>MIH and Neoplasm</td>
<td>MIH and Neoplasm</td>
<td>X</td>
</tr>
<tr>
<td>MIH x Sex</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>MIH x Job role</td>
<td>Sedentary</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sex</td>
<td>X</td>
<td>Female</td>
<td>X</td>
</tr>
<tr>
<td>Job Grade</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Job Role - Sedentary</td>
<td>Sedentary</td>
<td>Sedentary</td>
<td>X</td>
</tr>
<tr>
<td>Job Role - Male</td>
<td>Sedentary</td>
<td>Sedentary</td>
<td>Physical</td>
</tr>
<tr>
<td>Job Role - Female</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>LTSA Episode History</td>
<td>Episodes 2 and 3</td>
<td>Episode 1</td>
<td>Episodes 2 and 3</td>
</tr>
</tbody>
</table>

X = no significant association, RTW Outcome = X or significantly lower RTW rate, Absence Phase = X or significantly higher Chronic
Barriers and Enablers to RTW from LTSA

Chapter 7 Study One Quantitative

Are Type of Illness/Injury (15 ICD categories), Sex (M, F), Job Grade (Senior management, Middle management, Supervisor/ Lower level staff, Lowest level staff), Job Role (sedentary, physical), LTSA history (1 to 5 episodes of LTSA during the study period), predictive of RTW outcome or absence phase for police officers or police staff?

Logistic regression analyses using the Enter method were performed on RTW Outcome (RTW=0, Not RTW=1) and Absence Phase (Sub Acute=0, Chronic=1) as the dependent variables (RTW=0, Not RTW=1) and five predictors: Sex (Males=0, Females=1); Job Grade (Senior management=0, Middle management=1, Supervisor/Lower level staff=2, Lowest level staff=3); Job Role (sedentary=0, physical=1); LTSA history (1 to 5 episodes of LTSA during the study period) and Type of Illness/injury (15 ICD categories). Type of Illness/injury was transformed into 14 dummy variables, with musculoskeletal being chosen as the reference group. This category of illness was selected because it is the most heavily populated (Field, 2000). Prior to analyses the datasets for Police Officers and Police staff were screened. Analyses showed no problems with convergence, nor were any of the standard errors exceedingly large. Correlations between the independent variables were less than .4, Tolerance values were greater than .89, and the Variance inflation factors were all less than 1.2. Therefore, no multicollinearity was evident.

Police Officers x RTW Outcome

Table 7.8 summarises the results of the logistic regression for police officers using RTW Outcome as the dependent variable. The illness categories of mental ill health and neoplasms, job role and episodes of LTSA predicted RTW outcome. That is, an injured/ill police officer was less likely to RTW if he or she had (a) a diagnosis of mental ill health or neoplasm, (b) a sedentary job role, or, (c) had a history of multiple episodes of LTSA during the study period.

The model's predictive accuracy is shown in Table 7.8. The second column contains the logit coefficients of the predictor variables. These unstandardised logistic regression coefficients correspond to the B (unstandardised regression) coefficients in ordinary least-squares regression (Garson, 2001). These parameter estimates describe the steepness and the direction of the logistical regression curve (Wright, 1995). Unlike ordinary least squares regression, logistic regression calculates changes in the log odds of the dependent variable. The Wald chi-square statistic in

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the fourth column tests the significance of the logit coefficient associated with a given independent variable. The column labelled Exp(B), contains the odds ratio for each predictor in the model. The odds ratio is an estimate of the increase in the likelihood of not RTW for one unit increase in the corresponding predictor variable when other independent variables in the model are controlled for (Wright, 1995). The odds ratio is always 0 or greater, and it is 1 when membership in the RTW or Not RTW groups is equally likely. Moreover, the odds are proportional; a variable with an odds ratio of 2 has double the effect of one with an odds ratio of 1.

### Table 7.8 RTW Outcome as a Function of Individual Predictors for Police Officers

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95.0% C.I.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermatological</td>
<td>-18.950</td>
<td>7935.148</td>
<td>.000</td>
<td>1</td>
<td>.998</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Endocrine &amp; Metabolic</td>
<td>-.243</td>
<td>1.079</td>
<td>.051</td>
<td>1</td>
<td>.822</td>
<td>.785</td>
<td>.095</td>
<td>6.506</td>
</tr>
<tr>
<td>ENT and Dental</td>
<td>-.185</td>
<td>.446</td>
<td>.173</td>
<td>1</td>
<td>.877</td>
<td>.831</td>
<td>.347</td>
<td>1.990</td>
</tr>
<tr>
<td>Gastro-intestinal</td>
<td>.072</td>
<td>.296</td>
<td>.059</td>
<td>1</td>
<td>.808</td>
<td>1.075</td>
<td>.602</td>
<td>1.918</td>
</tr>
<tr>
<td>Genito-urinary</td>
<td>-.088</td>
<td>.745</td>
<td>.014</td>
<td>1</td>
<td>.906</td>
<td>.916</td>
<td>.212</td>
<td>3.946</td>
</tr>
<tr>
<td>Gynaecological</td>
<td>-.283</td>
<td>.421</td>
<td>.450</td>
<td>1</td>
<td>.502</td>
<td>.754</td>
<td>.330</td>
<td>1.721</td>
</tr>
<tr>
<td>Infectious &amp; Parasitic</td>
<td>-.303</td>
<td>.330</td>
<td>.842</td>
<td>1</td>
<td>.359</td>
<td>.739</td>
<td>.387</td>
<td>1.410</td>
</tr>
<tr>
<td>Mental Health Illness</td>
<td>.390</td>
<td>.123</td>
<td>10.016</td>
<td>1</td>
<td>.002</td>
<td>1.477</td>
<td>1.160</td>
<td>1.880</td>
</tr>
<tr>
<td>Cardiovascular/blood</td>
<td>-.161</td>
<td>.307</td>
<td>.275</td>
<td>1</td>
<td>.600</td>
<td>.851</td>
<td>.466</td>
<td>1.554</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>1.081</td>
<td>.489</td>
<td>4.891</td>
<td>1</td>
<td>.027</td>
<td>2.946</td>
<td>1.131</td>
<td>7.677</td>
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<tr>
<td>Neurological</td>
<td>-.220</td>
<td>.630</td>
<td>.172</td>
<td>1</td>
<td>.678</td>
<td>.802</td>
<td>.284</td>
<td>2.270</td>
</tr>
<tr>
<td>Ophthalmic</td>
<td>-.269</td>
<td>.757</td>
<td>.126</td>
<td>1</td>
<td>.722</td>
<td>.764</td>
<td>.173</td>
<td>3.367</td>
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<tr>
<td>Other</td>
<td>-.034</td>
<td>.146</td>
<td>.055</td>
<td>1</td>
<td>.814</td>
<td>.966</td>
<td>.726</td>
<td>1.286</td>
</tr>
<tr>
<td>Respiratory</td>
<td>.003</td>
<td>.379</td>
<td>.000</td>
<td>1</td>
<td>.993</td>
<td>1.003</td>
<td>.478</td>
<td>2.108</td>
</tr>
<tr>
<td>Sex</td>
<td>-.124</td>
<td>.120</td>
<td>1.072</td>
<td>1</td>
<td>.300</td>
<td>.884</td>
<td>.699</td>
<td>1.117</td>
</tr>
<tr>
<td>Job Grade</td>
<td>-.085</td>
<td>.094</td>
<td>.816</td>
<td>1</td>
<td>.385</td>
<td>.918</td>
<td>.763</td>
<td>1.105</td>
</tr>
<tr>
<td>Job Role</td>
<td>-.369</td>
<td>.127</td>
<td>8.474</td>
<td>1</td>
<td>.004</td>
<td>.692</td>
<td>.540</td>
<td>.887</td>
</tr>
<tr>
<td>Episodes of LTSA</td>
<td>.904</td>
<td>.075</td>
<td>146.500</td>
<td>1</td>
<td>.000</td>
<td>2.471</td>
<td>2.134</td>
<td>2.860</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.680</td>
<td>.317</td>
<td>71.258</td>
<td>1</td>
<td>.000</td>
<td>.069</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For each additional absence episode there was a 2.47 increase in likelihood of the police officers not RTW (Wald=146.5, p≤.001). Similarly, the likelihood of not RTW increased 1.47 times when the police officer had a mental ill health diagnosis (Wald=10.02, p≤.003) and 2.96 times when having a neoplasm diagnosis (Wald=4.89, p≤.03), relative to those with a musculoskeletal diagnosis. A negative predictor for not RTW was job role. When ill/injured police officers were in physical job roles they were .69 less likely to not RTW. In other words, those in physical job roles were significantly more likely to RTW than those in sedentary job roles.
Thus, a diagnosis of mental ill health or neoplasm, a history of more than one episode of LTSA during the study period, and being in a sedentary CID policing job role were significant predictors of those police officers less likely to RTW. There were no significant relationships between RTW Outcome and sex, job grade, or the other 12 illness categories.

Overall, this model correctly predicted 88.8% of RTW outcomes. These variables correctly classified 99.7% of the injured/ill police officers who RTW and 2% of those who did not RTW. The goodness of fit of the predicted model with the observed behaviour of ill/injured respondents and RTW outcome was assessed by the Hosmer-Lemeshow statistic. The overall fit of the model suggested there was a satisfactory fit between the predicted model and the data collected ($\chi^2$=5.653, df=7, $p=.581$).

### Police Staff x RTW Outcome

Table 7.9 summarises results of the logistic regression for Police Staff using RTW Outcome as the dependent variable. Only number of episodes of LTSA predicted

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95.0% C.I. for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Dermatological</td>
<td>.793</td>
<td>.679</td>
<td>1.362</td>
<td>1</td>
<td>.243</td>
<td>2.209</td>
<td>.584</td>
</tr>
<tr>
<td>Endocrine &amp; Metabolic</td>
<td>.484</td>
<td>1.118</td>
<td>.187</td>
<td>1</td>
<td>.665</td>
<td>1.622</td>
<td>.161</td>
</tr>
<tr>
<td>ENT and Dental</td>
<td>-.569</td>
<td>.749</td>
<td>.577</td>
<td>1</td>
<td>.448</td>
<td>.566</td>
<td>.130</td>
</tr>
<tr>
<td>Gastro-intestinal</td>
<td>-.074</td>
<td>.363</td>
<td>.042</td>
<td>1</td>
<td>.838</td>
<td>.928</td>
<td>.456</td>
</tr>
<tr>
<td>Genito-urinary</td>
<td>.662</td>
<td>.817</td>
<td>.657</td>
<td>1</td>
<td>.418</td>
<td>1.939</td>
<td>.391</td>
</tr>
<tr>
<td>Gynaecological</td>
<td>-.853</td>
<td>.494</td>
<td>2.981</td>
<td>1</td>
<td>.096</td>
<td>.426</td>
<td>.162</td>
</tr>
<tr>
<td>Infectious &amp; Parasitic</td>
<td>-.242</td>
<td>.431</td>
<td>.315</td>
<td>1</td>
<td>.574</td>
<td>.785</td>
<td>.337</td>
</tr>
<tr>
<td>Mental Health Illness</td>
<td>.121</td>
<td>.218</td>
<td>.311</td>
<td>1</td>
<td>.577</td>
<td>1.129</td>
<td>.737</td>
</tr>
<tr>
<td>Cardiovascular/blood</td>
<td>.162</td>
<td>.409</td>
<td>.157</td>
<td>1</td>
<td>.692</td>
<td>1.176</td>
<td>.527</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>.778</td>
<td>.663</td>
<td>1.380</td>
<td>1</td>
<td>.240</td>
<td>2.178</td>
<td>.594</td>
</tr>
<tr>
<td>Neurological</td>
<td>.729</td>
<td>.437</td>
<td>2.787</td>
<td>1</td>
<td>.095</td>
<td>2.074</td>
<td>.881</td>
</tr>
<tr>
<td>Ophthalmic</td>
<td>-19.055</td>
<td>16367.03</td>
<td>.000</td>
<td>1</td>
<td>.999</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Other</td>
<td>-.310</td>
<td>.233</td>
<td>1.777</td>
<td>1</td>
<td>.183</td>
<td>.733</td>
<td>.465</td>
</tr>
<tr>
<td>Respiratory</td>
<td>-.568</td>
<td>.550</td>
<td>1.067</td>
<td>1</td>
<td>.302</td>
<td>.567</td>
<td>.193</td>
</tr>
<tr>
<td>Sex</td>
<td>.036</td>
<td>.175</td>
<td>.042</td>
<td>1</td>
<td>.838</td>
<td>1.036</td>
<td>.735</td>
</tr>
<tr>
<td>Job Grade</td>
<td>-.188</td>
<td>.188</td>
<td>.977</td>
<td>1</td>
<td>.323</td>
<td>.831</td>
<td>.575</td>
</tr>
<tr>
<td>Job Role</td>
<td>.610</td>
<td>.320</td>
<td>3.640</td>
<td>1</td>
<td>.056</td>
<td>1.840</td>
<td>.983</td>
</tr>
<tr>
<td>Episodes of LTSA</td>
<td>.819</td>
<td>.133</td>
<td>37.629</td>
<td>1</td>
<td>.000</td>
<td>2.268</td>
<td>1.746</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.807</td>
<td>.411</td>
<td>46.572</td>
<td>1</td>
<td>.000</td>
<td>.060</td>
<td></td>
</tr>
</tbody>
</table>

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RTW outcome. That is, an injured/ill member of police staff was less likely to RTW if he or she had a history of multiple episodes of LTSA during the study period. The model's predictive accuracy is shown in Table 7.9. For each additional episode there was a 2.94 increase in likelihood of the worker not RTW (Wald=37.63 p<.001). Thus, the only significant barrier to RTW for ill/injured police staff was having a history of more than one episode of LTSA during the study period. There were no significant relationships between RTW Outcome and illness/injury type, sex, job grade, or job role.

Overall, this model correctly predicted 89.2% of RTW outcomes, correctly classifying 99.9% of the injured/ill respondents who RTW and 1% of those who did not RTW. The goodness of fit of the predicted model with the observed behaviour of ill/injured respondents and RTW outcome was assessed by the Hosmer-Lemeshow statistic. The overall fit of the model suggested there was a satisfactory fit between the predicted model and the data collected ($\chi^2$=3.857, df=7, p=.870).

Police Officers x Absence Phase

Table 7.10 summarises the results of the logistic regression for police officers using Absence Phase as the dependent variable. The illness categories of mental ill health, cardiovascular/blood, neoplasms, gynaecological and 'other', sex, job role and episodes of LTSA predicted absence phase. Specifically, injured/ill police officers were more likely to enter the chronic phase if they were (a) categorised with a diagnosis of mental health illness, cardiovascular/blood or neoplasms, (b) female (c) or in a sedentary job role, and were less likely to enter the chronic phase if they (a) were categorised with a diagnosis of gynaecological or 'other', or (b) had increasing episodes of LTSA.

The model's predictive accuracy is shown in Table 7.10. The likelihood of a police officer entering the chronic phase increased: 6.22 times with a neoplasm diagnosis (Wald=15.52, p≤.001); 3.42 times with a mental ill health diagnosis (Wald=207.72, p≤.001), and 1.855 times with a cardiovascular/blood diagnosis (Wald=15.52, p≤.002) relative to those with a musculoskeletal diagnosis. A police officer was also 1.21 times more likely to enter the chronic phase if female (Wald=5.39, p≤.025). Of the negative predictors, increasing episodes of LTSA was the most powerful. For each additional absence episode there was a .64 increase in likelihood of police officers entering the chronic phase (Wald=32.48, p≤.001). In other words for each additional
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absence episode police officers were significantly less likely to enter the chronic phase. Similarly with job role, ill/injured police officers in physical job roles were .75 times more likely to enter the chronic phase (Wald=9.05, p≤.025), meaning those in physical job roles were significantly less likely to enter the chronic phase than those in sedentary job roles. Lastly, there was a .77 increase in likelihood of police officers entering the chronic phase with a diagnosis of ‘other’ (Wald=6.57, p≤.025) and a .46 increase in likelihood of police officers entering the chronic phase with a gynaecological diagnosis (Wald=5.75, p≤.025) relative to those with a musculoskeletal diagnosis. This means that police officers in either of these diagnostic categories were less likely to enter the chronic phase relative to those with a musculoskeletal diagnosis.

Table 7.10 Absence Phase as a Function of Individual Predictors for Police Officers

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95.0% C.I.for Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Dermatological</td>
<td>-0.674</td>
<td>0.550</td>
<td>1.500</td>
<td>1</td>
<td>.221</td>
<td>0.510</td>
<td>0.174</td>
</tr>
<tr>
<td>Endocrine &amp; Metabolic</td>
<td>0.259</td>
<td>0.618</td>
<td>0.176</td>
<td>1</td>
<td>.675</td>
<td>1.298</td>
<td>0.386</td>
</tr>
<tr>
<td>ENT and Dental</td>
<td>-0.440</td>
<td>0.327</td>
<td>1.815</td>
<td>1</td>
<td>.178</td>
<td>0.644</td>
<td>0.339</td>
</tr>
<tr>
<td>Gastro-intestinal</td>
<td>-0.374</td>
<td>0.227</td>
<td>2.712</td>
<td>1</td>
<td>.100</td>
<td>0.688</td>
<td>0.441</td>
</tr>
<tr>
<td>Genito-urinary</td>
<td>-0.194</td>
<td>0.476</td>
<td>1.167</td>
<td>1</td>
<td>.683</td>
<td>0.823</td>
<td>0.324</td>
</tr>
<tr>
<td>Gynaecological</td>
<td>-0.763</td>
<td>0.318</td>
<td>5.759</td>
<td>1</td>
<td>* .016</td>
<td>0.486</td>
<td>0.250</td>
</tr>
<tr>
<td>Infectious &amp; Parasitic</td>
<td>-0.272</td>
<td>0.218</td>
<td>1.564</td>
<td>1</td>
<td>.211</td>
<td>0.762</td>
<td>0.497</td>
</tr>
<tr>
<td>Mental Health Illness</td>
<td>1.230</td>
<td>0.085</td>
<td>207.729</td>
<td>1</td>
<td>* .000</td>
<td>3.420</td>
<td>2.893</td>
</tr>
<tr>
<td>Cardiovascular/blood</td>
<td>0.618</td>
<td>0.186</td>
<td>11.032</td>
<td>1</td>
<td>* .001</td>
<td>1.855</td>
<td>1.288</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>1.828</td>
<td>0.464</td>
<td>15.622</td>
<td>1</td>
<td>* .000</td>
<td>6.223</td>
<td>2.506</td>
</tr>
<tr>
<td>Neurological</td>
<td>0.298</td>
<td>0.306</td>
<td>0.951</td>
<td>1</td>
<td>.330</td>
<td>1.347</td>
<td>0.740</td>
</tr>
<tr>
<td>Ophthalmic</td>
<td>-1.416</td>
<td>0.740</td>
<td>3.659</td>
<td>1</td>
<td>.066</td>
<td>0.243</td>
<td>0.057</td>
</tr>
<tr>
<td>Other</td>
<td>-0.261</td>
<td>0.102</td>
<td>6.572</td>
<td>1</td>
<td>* .010</td>
<td>0.770</td>
<td>0.631</td>
</tr>
<tr>
<td>Respiratory</td>
<td>-0.589</td>
<td>0.322</td>
<td>3.340</td>
<td>1</td>
<td>.068</td>
<td>0.555</td>
<td>0.295</td>
</tr>
<tr>
<td>Sex</td>
<td>0.194</td>
<td>0.084</td>
<td>5.397</td>
<td>1</td>
<td>* .020</td>
<td>1.214</td>
<td>1.031</td>
</tr>
<tr>
<td>Job Grade</td>
<td>0.893</td>
<td>0.850</td>
<td>1.103</td>
<td>1</td>
<td>.294</td>
<td>2.442</td>
<td>0.461</td>
</tr>
<tr>
<td>Job Role</td>
<td>-0.277</td>
<td>0.092</td>
<td>9.054</td>
<td>1</td>
<td>* .003</td>
<td>0.758</td>
<td>0.633</td>
</tr>
<tr>
<td>Episodes of LTSA</td>
<td>-0.441</td>
<td>0.077</td>
<td>32.488</td>
<td>1</td>
<td>* .000</td>
<td>0.643</td>
<td>0.553</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.127</td>
<td>0.857</td>
<td>1.731</td>
<td>1</td>
<td>.188</td>
<td>0.324</td>
<td></td>
</tr>
</tbody>
</table>

Thus, a diagnosis of mental health illness, cardiovascular/blood or neoplasms, being female, being in a sedentary job role, and having a single episode of LTSA were significant predictors of those police officers likely to enter the chronic phase whereas having a diagnosis of gynaecological or ‘other’ was predictive of not entering the
chronic phase. There were no significant relationships between Absence Phase and job grade or the other 9 illness categories.

Overall, this model correctly predicted 71.7% of Absence Phases. These predictors correctly classified 89.8% of injured/ill police officers who were in the sub acute phase and 33.4% of those in the chronic phase. The goodness of fit of the predicted model with the observed behaviour of ill/injured police officers and Absence Phase was assessed by the Hosmer-Lemeshow statistic. The overall fit of the model suggested there was a satisfactory fit between the predicted model and the data collected ($\chi^2=8.368$, df=7, p=.301).

Police Staff x Absence Phase

Table 7.11 summarises the results of the logistic regression for police staff using Absence Phase as the dependent variable. The illness categories of mental ill health, infectious & parasitic, and neoplasms, and episodes of LTSA predicted absence phase. Specifically, injured/ill police staff were more likely to enter the chronic phase

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>S.E.</th>
<th>95.0% C.I. for EXP(B)</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermatological</td>
<td>0.365</td>
<td>0.571</td>
<td>0.408</td>
<td>1</td>
<td>1.440</td>
</tr>
<tr>
<td>Endocrine &amp; Metabolic</td>
<td>0.171</td>
<td>0.880</td>
<td>0.038</td>
<td>1</td>
<td>1.187</td>
</tr>
<tr>
<td>ENT and Dental</td>
<td>-0.555</td>
<td>0.489</td>
<td>1.403</td>
<td>1</td>
<td>0.574</td>
</tr>
<tr>
<td>Gastro-Intestinal</td>
<td>-0.095</td>
<td>0.257</td>
<td>0.136</td>
<td>1</td>
<td>0.909</td>
</tr>
<tr>
<td>Genito-urinary</td>
<td>0.577</td>
<td>0.659</td>
<td>0.788</td>
<td>1</td>
<td>1.781</td>
</tr>
<tr>
<td>Gynaecological</td>
<td>-0.658</td>
<td>0.293</td>
<td>3.631</td>
<td>1</td>
<td>0.572</td>
</tr>
<tr>
<td>Infectious &amp; Parasitic</td>
<td>-0.801</td>
<td>0.333</td>
<td>5.805</td>
<td>1</td>
<td>0.016</td>
</tr>
<tr>
<td>Mental Health Illness</td>
<td>0.545</td>
<td>0.149</td>
<td>13.402</td>
<td>1</td>
<td>1.724</td>
</tr>
<tr>
<td>Cardiovascular/blood</td>
<td>0.469</td>
<td>0.277</td>
<td>2.869</td>
<td>1</td>
<td>1.598</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>2.848</td>
<td>0.765</td>
<td>13.875</td>
<td>1</td>
<td>17.257</td>
</tr>
<tr>
<td>Neurological</td>
<td>0.144</td>
<td>0.380</td>
<td>0.145</td>
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<td>1.155</td>
</tr>
<tr>
<td>Ophthalmic</td>
<td>0.724</td>
<td>0.834</td>
<td>0.752</td>
<td>1</td>
<td>2.062</td>
</tr>
<tr>
<td>Other</td>
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<td>0.154</td>
<td>2.325</td>
<td>1</td>
<td>0.790</td>
</tr>
<tr>
<td>Respiratory</td>
<td>-0.580</td>
<td>0.368</td>
<td>2.483</td>
<td>1</td>
<td>0.560</td>
</tr>
<tr>
<td>Sex</td>
<td>0.007</td>
<td>0.122</td>
<td>0.003</td>
<td>1</td>
<td>1.007</td>
</tr>
<tr>
<td>Job Grade</td>
<td>0.532</td>
<td>0.578</td>
<td>0.847</td>
<td>1</td>
<td>1.702</td>
</tr>
<tr>
<td>Job Role</td>
<td>0.192</td>
<td>0.254</td>
<td>0.572</td>
<td>1</td>
<td>1.212</td>
</tr>
<tr>
<td>Episodes of LTSA</td>
<td>-0.338</td>
<td>0.131</td>
<td>6.667</td>
<td>1</td>
<td>0.713</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.744</td>
<td>0.547</td>
<td>1.863</td>
<td>1</td>
<td>0.475</td>
</tr>
</tbody>
</table>

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if they were (a) categorised with a diagnosis of mental health illness or neoplasms and were less likely to enter the chronic phase if they (a) were categorised with a diagnosis of infectious & parasitic, or (b) had increasing episodes of LTSA.

The model's predictive accuracy is shown in Table 7.11. The likelihood of police staff entering the chronic phase increased: 17.25 times with a neoplasm diagnosis (Wald=13.87, p≤.001); and 1.72 times with a mental ill health diagnosis (Wald=13.40, p≤.001) relative to those with a musculoskeletal diagnosis. Conversely, the likelihood of police staff entering the chronic phase decreased .449 times with an infectious & parasitic diagnosis (Wald=5.805, p≤.025) and .64 times for each additional absence episode (Wald=6.67, p≤.025). In other words police staff in the infectious & parasitic diagnostic category were less likely to enter the chronic phase relative to those with a musculoskeletal diagnosis; and for each additional absence episode police staff were significantly less likely to enter the chronic phase.

Thus, a diagnosis of mental health illness or neoplasms and having a single episode of LTSA were significant predictors of those police staff likely to enter the chronic phase whereas having a diagnosis of infectious & parasitic was predictive of not entering the chronic phase. There were no significant relationships between Absence Phase and sex, job grade, job role or the other 11 illness categories.

Overall, this model correctly predicted 70.5% of Absence Phases. These predictors correctly classified 98.9% of injured/ill police staff who were in the sub acute phase and 5.4% of those in the chronic phase. The goodness of fit of the predicted model with the observed behaviour of ill/injured police officers and Absence Phase was assessed by the Hosmer-Lemeshow statistic. The overall fit of the model suggested there was a satisfactory fit between the predicted model and the data collected (χ²=1.90, df=7, p=.965).
A summary of the logistic regression analyses are presented in Table 7.12.

Table 7.12 Summary of Logistic Regression Predictors

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Police Officers</th>
<th>Police Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RTW Outcome</td>
<td>Absence Phase</td>
</tr>
<tr>
<td>MIH</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Neoplasm</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Cardiovascular/blood</td>
<td>↑</td>
<td></td>
</tr>
<tr>
<td>Gynaecological</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infectious &amp; Parasitic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘Other’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedentary Job Role</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Increasing Episodes of LTSA</td>
<td>↑</td>
<td>↓</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Grade</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

↑ increased odds of Not RTW/Entering the Chronic Phase  ↓ decreased odds of Not RTW/Entering the Chronic Phase

Are Type of Illness/Injury (15 ICD categories), Sex (M, F), Job Grade (Senior management, Middle management, Supervisor/ Lower level staff, Lowest level staff), Job Role (sedentary, physical), LTSA history (1 to 5 episodes of LTSA during the study period), associated with different lengths of absence for police officers or police staff?

A two-way between groups analysis of variance was conducted to explore the impact of type of illness/injury (15 ICD categories) on length of absence and whether this effect was the same for both Police officers and Police staff. There was no significant difference in length of absence for Police Officers (M=98.93, SD=108.75) and Police Staff (M=91.79, SD=95.23), F(1, 6216) = 354, p=.552. However, the main effect of type of illness/injury on length of absence was significant, F(14, 6216) = 28.34, p<.001. Table 7.13 shows the mean length of absence for each of the types of illness/injury.

Post hoc comparisons using the Bonferroni test within the analysis of variance indicated that the mean length of absence for mental ill health was significantly different from each of the other illness/injury categories (all p<.001 except neoplasms p<.01), with the exception of endocrine & metabolic. All differences were positive except for neoplasms. Mean length of absence for Neoplasms was significantly longer compared to each of the other illness categories (all p<.001, except mental ill health.
p<.01), and cardiovascular and blood was significantly longer than gynaecological, infectious and ‘other’ categories (all p<.05). There was no significant difference between any of the other illness categories.

### Table 7.13 Mean Length of Absence x Type of Illness/Injury

<table>
<thead>
<tr>
<th>Sickness category</th>
<th>Mean CDL</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neoplasms</td>
<td>215.59</td>
<td>147.68</td>
<td>39</td>
</tr>
<tr>
<td>Mental Health Disorders</td>
<td>150.97</td>
<td>152.19</td>
<td>1259</td>
</tr>
<tr>
<td>Cardiovascular and blood</td>
<td>105.15</td>
<td>95.90</td>
<td>197</td>
</tr>
<tr>
<td>Neurological</td>
<td>97.31</td>
<td>86.95</td>
<td>85</td>
</tr>
<tr>
<td>Endocrine and Metabolic</td>
<td>94.33</td>
<td>74.47</td>
<td>18</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>86.95</td>
<td>90.82</td>
<td>2594</td>
</tr>
<tr>
<td>Gastro-intestinal</td>
<td>80.50</td>
<td>79.33</td>
<td>218</td>
</tr>
<tr>
<td>Other</td>
<td>74.88</td>
<td>64.97</td>
<td>1143</td>
</tr>
<tr>
<td>Genito-urinary</td>
<td>73.56</td>
<td>45.88</td>
<td>34</td>
</tr>
<tr>
<td>Ophthalmic</td>
<td>73.26</td>
<td>78.20</td>
<td>31</td>
</tr>
<tr>
<td>Respiratory</td>
<td>70.13</td>
<td>82.30</td>
<td>124</td>
</tr>
<tr>
<td>Gynaecological inc Obstetrics</td>
<td>65.75</td>
<td>53.22</td>
<td>166</td>
</tr>
<tr>
<td>Infectious &amp; Parasitic Diseases</td>
<td>69.88</td>
<td>74.80</td>
<td>206</td>
</tr>
<tr>
<td>ENT and Dental Disorders</td>
<td>66.77</td>
<td>77.89</td>
<td>93</td>
</tr>
<tr>
<td>Dermatological</td>
<td>64.15</td>
<td>39.17</td>
<td>39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>96.92</strong></td>
<td><strong>105.16</strong></td>
<td><strong>6246</strong></td>
</tr>
</tbody>
</table>

The interaction between type of illness/injury and staff type was significant, $F_{(14, 6216)} = 3.786$, p<.001, see Figure 7.1 below. The figure illustrates the difference in the effect of illness categories on length of absence for Police Officers and Police Staff. Of the 15 illness categories, it is apparent that the differences in the effect of the illness categories for the two staff types was in the categories mental ill health and ophthalmic.

The mean length of absence for mental ill health was significantly longer for Police Officers ($M=164.95$, $SD=159.34$) than it was for Police Staff ($M=120.38$, $SD=130.26$). Conversely, the mean length of absence for ophthalmic was significantly longer for Police Staff ($M=146.83$, $SD=152.10$) than it was for Police Officers ($M=55.6$, $SD=33.8$). Post hoc comparisons using the Bonferroni test within the analysis of variance confirmed these differences.

Table 7.14 shows the means and standard deviations for the 15 sickness categories for police officers and police staff. For police officers, significant differences were found between mental ill health and each of the other illness/injury categories (all
p<.001), with the exception of neoplasms and endocrine & metabolic which were not significantly different. Significant differences were also found between neoplasms and each of the other sickness absence categories (all p<.001), with the exception of mental ill health and endocrine & metabolic which were not significantly different. There was no significant difference between the any of the other illness categories.

For police staff, significant differences were found between neoplasms and each of the other illness/injury categories (p<.001), with the exception of ophthalmic and endocrine & metabolic which were not significantly different. Significant differences were also found between mental health disorders and musculoskeletal (p<.002), gynaecological inc. obstetrics (p<.001), infectious and parasitic diseases (p<.001), ‘other’ (p<.001), and respiratory (p<.009). There was no significant difference between the any of the other illness categories.

Given the prominence of MIH, independent-samples t-tests were computed to determine if the length of absence for sex or job role for police officers and police staff
with MIH was significantly different. A Bonferroni correction was applied to take account of the multiple tests and a probability value of <.025 was considered statistically significant. For police officers with MIH: there was no significant difference in the mean length of absence taken by females ($M=175.89$, $SD=163.76$) and males ($M=160.86$, $SD=157.60$), $t(862)=1.233$, $p=.218$, two tailed; however for job role, officers in sedentary roles, i.e. CID officers ($M=197.76$, $SD=188.77$), had significantly longer absence episodes compared to those in physical roles, i.e. uniformed officers ($M=156.91$, $SD=150.33$), $t(862)=3.009$, $p<.025$, two tailed.

Table 7.14 Staff Type x Mean Length of Absence and Type of Illness/Injury

<table>
<thead>
<tr>
<th>Sickness category</th>
<th>Police Officers</th>
<th>Police staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Std. Deviation N</td>
<td>Mean Std. Deviation N</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>214.7 166.865 23</td>
<td>216.88 120.04 16</td>
</tr>
<tr>
<td>Mental Health Disorders</td>
<td>164.95 159.347 864</td>
<td>120.38 130.26 395</td>
</tr>
<tr>
<td>Cardiovascular and blood</td>
<td>106.46 99.622 133</td>
<td>102.42 88.34 64</td>
</tr>
<tr>
<td>Neurological</td>
<td>94.49 82.492 49</td>
<td>101.14 93.74 36</td>
</tr>
<tr>
<td>Endocrine and Metabolic</td>
<td>97.58 72.064 12</td>
<td>87.83 85.75 6</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>86.03 89.781 2143</td>
<td>91.35 95.57 451</td>
</tr>
<tr>
<td>Gastro-intestinal</td>
<td>76.02 63.371 125</td>
<td>86.54 96.79 93</td>
</tr>
<tr>
<td>Other</td>
<td>74.39 67.946 724</td>
<td>75.73 59.54 419</td>
</tr>
<tr>
<td>Infectious and Parasitic Diseases</td>
<td>73.71 85.746 130</td>
<td>63.33 50.76 76</td>
</tr>
<tr>
<td>Respiratory</td>
<td>72.92 96.278 71</td>
<td>86.4 59.32 53</td>
</tr>
<tr>
<td>ENT and Dental Disorders</td>
<td>70.16 90.843 62</td>
<td>60 41.89 31</td>
</tr>
<tr>
<td>Genito-urinary</td>
<td>69.88 43.127 24</td>
<td>82.4 53.3 10</td>
</tr>
<tr>
<td>Gynaecological Inc Obstetrics</td>
<td>65.73 50.631 75</td>
<td>65.76 55.55 91</td>
</tr>
<tr>
<td>Dermatological</td>
<td>58.16 39.349 25</td>
<td>74.86 37.87 14</td>
</tr>
<tr>
<td>Ophthalmic</td>
<td>55.6 33.855 25</td>
<td>146.83 152.1 6</td>
</tr>
<tr>
<td>Total</td>
<td>98.93 108.753 4485</td>
<td>91.79 95.24 1761</td>
</tr>
</tbody>
</table>

For police staff with MIH: there was no significant difference in the mean length of absence taken by females ($M=115.33$, $SD=121.82$) and males ($M=134.88$, $SD=151.63$), $t(393)=1.307$, $p=.192$, two tailed; similarly for job role, there was no significant difference in the mean length of absence taken by those in sedentary roles ($M=118.17$, $SD=126.62$) compared to those in physical job roles, i.e. Industrials ($M=161.85$, $SD=185.22$), $t(393)=1.463$, $p=.144$, two tailed.

A further two-way between groups analysis of variance was conducted to explore if there was a difference in length of absence for sex and for staff type. There was a significant interaction between the factors sex and staff type, $F(1,9242) = 12.588$, $p<.001$.
Barriers and Enablers to RTW from LTSA

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Figure 7.2 Mean Length of Absence x Sex and Staff type

Post hoc tests were conducted to explore the significant interaction. An independent-samples t-test was computed to determine if the length of absence for males and females for Police Officers was different. A Bonferroni correction was applied to take account of the multiple tests and a probability value of <.025 was considered statistically significant. Female officers \((M=112.48, SD=125.58)\) had significantly longer absence episodes compared to male officers \((M=95.21, SD=103.36)\), \(t(1344.5)=-3.926, p<.001\), two tailed. For Police staff there was no significant difference in the mean length of absence taken by females \((M=89.91, SD=90.41)\) and males \((M=96.44, SD=106.15)\), \(t(820.34)=1.218, p=.11\), two tailed. For the sample as a whole, there was no significant difference in the mean length of absence taken by females \((M=99.74, SD=107.70)\) and males \((M=95.36, SD=103.70)\), \(t(4427)=-1.557, p=.12\), two tailed.

A further two-way between groups analysis of variance was conducted to explore if there was a difference in length of absence for job grade and for staff type. There was no significant difference in length of absence for Police Officers \((M=98.93, SD=108.75)\) and Police Staff \((M=91.79, SD=95.23)\), \(F(1, 6238) = .002, p=.969\). There was no significant difference in length of absence for job grade (Senior management, \(M=70.0, SD=55.08\), Middle management, \(M=95.14, SD=99.24\), Supervisor/Lower level staff, \(M=92.69, SD=97.50\), Lowest level staff, \(M=99.27, SD=109.36\)), \(F(3, 6238) = 2.317, p=.07\). The interaction effect between the factor of job grade and the factor of staff type did not reach statistical significance, \(F(3, 6238) = 2.493, p=.058\).
For the factors job role and staff type, a two-way between groups analysis of variance was conducted to explore if there was a difference in length of absence. There was a significant interaction between the factor of job role and the factor of staff type, $F(1, 624) = 27.481, p<.001$, see Figure 7.3. The graph illustrates the difference in the effect of job role on length of absence for Police Officers and Police Staff.

Post hoc tests were conducted to explore the significant interaction. An independent-samples t-test was computed to determine if the length of absence for sedentary and physical job roles for Police Officers was significantly different. A Bonferroni correction was applied to take account of the multiple tests and a probability value of <.025 was considered statistically significant. Those in sedentary roles, i.e. CID officers ($M=119.53, SD=135.13$), had significantly longer absence episodes compared to those in physical roles, i.e. uniformed officers ($M=95.21, SD=102.86$), $t(832.7)=4.481, p<.001$, two tailed.

Conversely, for Police staff, those in sedentary roles ($M=89.12, SD=91.22$) had significantly shorter absence episodes compared to those in physical job roles, i.e. Industrials ($M=110.43, SD=118.12$), $t(258.99)=2.575, p<.025$, two tailed. There was no significant difference in length of absence for Police Officers ($M=98.93, SD=108.75$) and Police Staff ($M=91.79, SD=95.23$), $F(1, 624) = 3.045, p=.08$. Likewise, there was no significant difference in length of absence for Sedentary, ($M=104.32, SD=2.40$) and Physical ($M=102.82, SD=3.626$) job roles, $F(3, 624) = .119, p=.731$.

A two-way between groups analysis of variance was conducted to explore the effect of LTSA history (1 to 4 episodes of LTSA during the study period) and staff type on length of absence. There was no significant difference in length of absence for Police Officers and Police Staff.
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Officers (M=98.93, SD=108.75) and Police Staff (M=91.79, SD=95.23), \( F(1, 623) = .020, p=.886 \). However, the main effect for LTSA history was significant (\( F(3, 623) = 13.336, p<.001 \))^8.

Post hoc comparisons using the Bonferroni test within the analysis of variance indicated that there was a significant difference between Episode 1 (M=101.41, SD=111.60) and Episode 2, (M=77.61, SD=63.885, p<.001), and between Episode 1 and Episode 3, (M=61.91, SD=37.62, p<.001). There was no significant difference between Episode 1 and Episode 4 (p=.412), between Episode 2 and Episode 3 (p=.582), between Episode 2 and Episode 4 (p=1.0), or between Episode 3 and Episode 4 (p=1.0). The interaction effect (\( F(3, 623) = .399, p=.754 \)) was not significant.

Table 7.15 Summary of ANOVAs for Length of Absence x Factors & Staff type

<table>
<thead>
<tr>
<th>Factors</th>
<th>Main Effects</th>
<th>Sign. Interactions</th>
<th>Sign.</th>
<th>Police Officers</th>
<th>Police Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Illness &amp; Staff type</td>
<td>Type of Illness x Staff type</td>
<td>Yes</td>
<td>Type of Illness x Staff type</td>
<td>Yes</td>
<td>Officers had significantly more CDL per episode of mental ill health than Staff.</td>
</tr>
<tr>
<td>Sex &amp; Staff type</td>
<td>Sex x Staff type</td>
<td>No</td>
<td>Sex x Staff type</td>
<td>Yes</td>
<td>Female officers had significantly more CDL per episode of LTSA compared to male officers.</td>
</tr>
<tr>
<td>Job Grade &amp; Staff type</td>
<td>Job Grade x Staff type</td>
<td>No</td>
<td>Job Grade x Staff type</td>
<td>No</td>
<td>–</td>
</tr>
<tr>
<td>Job Role &amp; Staff type</td>
<td>Job Role x Staff type</td>
<td>No</td>
<td>Job Role x Staff type</td>
<td>Yes</td>
<td>Officers in sedentary roles had significantly more CDL per episode of LTSA compared to officers in physical roles.</td>
</tr>
<tr>
<td>LTSA history &amp; Staff type</td>
<td>LTSA history x Staff type</td>
<td>Yes</td>
<td>LTSA history x Staff type</td>
<td>No</td>
<td>–</td>
</tr>
</tbody>
</table>

Dependent Variable: Cal. Days Lost

7.4 DISCUSSION

Study One aimed to substantiate the presence of any individual domain barriers to RTW and predictors of RTW outcome and establish the phase specificity of any risk factors of prolonged work disability using the large administrative database of the Anon Force in the UK. The structure of the Anon Force, with its two distinct working populations, police officers and police staff (civilians), within the same working environment allowed for unique comparisons to be made across as well as within these diverse occupational groups.

^8 Number of episodes was restricted to 4 due to the small N in episode 5.
7.4.1 Summary of Results

Descriptive analyses showed that regarding incidence, rates of LTSA vs. No LTSA between the two staff types were comparable. Police Staff in their support roles had statistically equivalent rates of LTSA compared to Police Officers. Likewise, with RTW rates, police officers and police staff were found to have proportionately equivalent numbers return from LTSA during the study period. Both staff type also had similarly equivalent numbers in sub acute vs. chronic absence phases. Musculoskeletal, followed by mental ill health and 'Other' diagnoses, were the most frequently occurring illness/injury categories in both staff groups. Mental ill health accounted for a relatively higher number of CDL in both staff groups although more so in police officers.

Univariate and multivariate analyses showed that Staff Type, i.e. being a police officer vs. police staff, was not a significant barrier to RTW in either RTW rate, or absence phase / duration of LTSA. Both had statistically equivalent RTW rates and duration/absence phase representation.

Regarding type of illness, significant between staff group associations were found in the predominant diagnostic categories. Police officers had a disproportionately high incidence of musculoskeletal relative to police staff while police staff had a disproportionately high incidence of MIH and 'Others' relative to police officers. While the incidences of these diagnoses were significantly different between the two staff type, the RTW rates within each diagnostic category were equivalent for both staff types. Type of illness, however, was found to be significantly associated with absence phase. The diagnostic category MIH was significantly overrepresented among police officers in the chronic absence phase relative to police staff.

Type of illness was also shown to be a significant barrier to RTW within the two staff type. With respect to duration/absence phase: MIH and Neoplasms (Cancers) represented significantly longer episodes of LTSA compared to all other illness categories within both staff types; police officers with MIH had significantly longer episodes of LTSA compared to police staff with MIH; and police staff with an Ophthalmic diagnosis9 had significantly longer episodes of LTSA compared to police officers with an Ophthalmic diagnosis. For both staff types with MIH, length of absence

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9 While Ophthalmic had a high mean CDL, the number of people with this diagnosis was extremely small (N=6).
was not significantly affected by sex, or in the case of police staff, job role. However, for police officers with MIH, those in sedentary roles took significantly longer to RTW than those in physical, uniformed roles.

In terms of RTW rates and type of illness, only Police Officers were significantly affected. Officers with a MIH diagnosis had significantly lower RTW rates compared to those who did not have this diagnosis. Female officers and officers in sedentary job roles (CID) were significantly over represented in the MIH category. However, interestingly, while female officers were no less likely to RTW than male officers with MIH, officers in sedentary, CID roles with MIH were significantly less likely to RTW than officers in physical, front line roles with MIH. The other illness type that was found to have significantly lower RTW rates was Neoplasms. This group of illnesses represents the cancers, and typically people with such a diagnosis are off work for an extended periods of time, not least for lengthy treatment regimes like chemotherapy. The number of officers involved in this group was very small (N=23) and only six did not RTW.

Sex was not a significant barrier to RTW for the overall sample or within the two staff types in terms of RTW rate. However being a female officer was a significant barrier to RTW in terms of duration/absence phase of LTSA compared to female police staff and male police officers. In other words being a female police officer was a barrier to RTW in terms of prolonged work disability compared to their male colleagues and their comparative group in the police staff population but they RTW at the equivalent rate. Job Grade was not a significant barrier for either staff type in terms of RTW rate or duration of LTSA.

For Job Role, being a police officer in a sedentary job role was a significant barrier to RTW in terms of RTW rate and duration/absence phase of LTSA compared to police staff in a sedentary job role and police officers in a physical (uniformed) job role. Moreover, being a male police officer in a sedentary job role was a significant barrier to RTW in terms of RTW rates and duration/absence phase of LTSA compared to male police staff in a sedentary job role and male police officers in a physical (uniformed) job role. Being a female police officer in a sedentary job role was a significant barrier to RTW in terms of duration/absence phase only compared to police staff in a sedentary job role. In terms of CDL, the dominant illness category for the police officer sedentary role sub group was MIH.
For police staff, being in a physical (industrial) job role was a significant barrier to RTW in terms of duration/absence phase of LTSA only compared to police officers in a physical job role and police staff in a sedentary job role. Moreover, being male in a physical (industrial) job role was a significant barrier to RTW in terms of RTW rates only compared to police officers in a physical job role and police staff in a sedentary job role. Additionally, being female in a physical (industrial) job role was a significant barrier to RTW in terms of duration/absence phase of LTSA compared to police staff in a sedentary job role. In terms of CDL, the dominant illness category for the physical job role sub group was musculoskeletal.

Increasing episodes of LTSA during the study period was a significant barrier to RTW within both staff types in terms of RTW rates but relative to each other the staff types were statistically equivalent in their RTW rates and duration/absence phase of LTSA. Differences in length of episodes were also found, with episode one being significantly longer than episodes two or three.

The results generated from the logistic regression largely reflected those from the univariate analyses. For Police Officers, the individual predictors that increased the odds of Not RTW were the diagnostic categories MIH and neoplasms, sedentary job role and multiple episodes of LTSA. Likewise, predictors that increased the odds of entering the chronic phase were diagnostic categories MIH, neoplasms, and cardiovascular, sedentary job role, and being female. Meanwhile, predictors that decreased the odds of entering the chronic phase were diagnostic categories of gynaecological and ‘other’ and multiple episodes of LTSA. For Police staff, the only predictor that increased the odds of Not RTW was a history of multiple episodes of LTSA during the study period. Predictors that increased the odds of entering the chronic phase were diagnostic categories MIH and Neoplasms. Meanwhile, predictors that decreased the odds of entering the chronic phase were the diagnostic category infectious and parasitic and a history of multiple episodes of LTSA during the study period.

### 7.4.2 Implications of Results

The results of this study substantiate several objectively determined individual domain barriers to RTW and predictors of RTW outcome and establish the phase specificity of a number of risk factors of prolonged work disability. Sedentary policing roles; being male in a sedentary policing role; being male in a physical police staff role; being a
police officer with a diagnosis of MIH or Neoplasms; being a police officer in a sedentary policing role with a diagnosis of MIH; and having a history of multiple episodes of LTSA during the study period were all found to be significant barriers to RTW. Conversely, staff type, sex, and job grade were shown not to be barriers to RTW.

Episode duration and phase specific results showed that: a diagnosis of MIH (all), neoplasms (all) and cardiovascular (police officers only); being a female police officer; sedentary policing roles; physical police staff roles; being male or female in a sedentary policing role (relative to police staff sedentary roles); being male in a sedentary policing role (relative to a physical job role); being female in a physical (industrial) job role; and having only one episode of LTSA during the study period were each significantly associated with the chronic absence phase and represented risk factors for prolonged work disability.

These results suggest that these objective individual domain factors, especially type of illness/injury, job role, sex and number of LTSA episodes are significant barriers to RTW and represent important risk factors for prolonged work disability. They also provide support for the importance of using outcome measures of duration and phase specificity in addition to RTW outcome. Doing so enabled important differences to be detected across the sub acute and chronic phases. For example, sex failed to show any differences between or within either staff population with respect to RTW outcome yet analyses of duration and absence phase revealed important differences between the sexes in both populations.

Notwithstanding these findings, the present study was limited by the information that was available in the administrative data source. The dataset contained only frequency data and there were several personal characteristics not available that have been identified as correlates of LTSA duration and RTW outcome such as age, marital status and education. In addition, there was a lack of information contained in the dataset, particularly about illness/injury. While diagnosis was captured no other medical information was. There was no data on injury severity, treatments provided, ongoing medical status or changes in diagnosis to show secondary conditions. Moreover, all data related only to the individual domain and therefore the effects of any organisational and societal factors could not be estimated within this study design.
These limitations aside, the present study extends the current literature on barriers to RTW by showing the role that certain objectively determined individual domain factors play in impacting duration of work disability and in predicting post illness/injury work status. Although the findings are tentative and limited in scope, they do suggest that: medical diagnosis especially MIH, job role, sex and number of LTSA episodes are significant barriers to RTW. These findings should be interpreted cautiously, however, because they are merely possible indicators of barriers to RTW that need to be corroborated.

Because of the limitations of the data in the present study, the explanations for the current findings are speculative and there is a need to develop understanding of how these factors contribute to prolonged work disability. To this end, it is argued that there is a need to understand the work disability experience from the perspective of the long term sick. In so doing, this will provide an understanding of the story behind the comparative quantification from Study One and provide new information about barriers and enablers to RTW from the perspective of the long term sick, how they perceive and respond to events in their LTSA experiences, and the effect this has on the course of LTSA and RTW outcome.

The quantitative research method and analyses used in this study were perfectly adequate to answer the broad research questions, where mass data was being explored in an endeavour to establish regularities and patterns in LTSA and substantiate the presence of any objectively defined individual domain barriers to RTW and predictors of RTW outcomes. However, determining the barriers and enablers to RTW from the perspective of the long term sick, the developmental course of these factors, the differential effects that factors from the different domains have on the long term sick and how they can best be managed to increase the likelihood of successful RTW would seem to require an approach that compliments the traditional risk factor approach undertaken here. A qualitative research method would access depth and particularly human aspects of prolonged work disability and is a knowledge base that has been relatively ignored in the biomedical literature (Krause et al, 2001a). In-depth interviews would access factors associated with work disability and RTW outcome which could then be located within the different domains (individual, organisational and societal), and would likely reveal a more complete picture of the barriers and enablers to RTW from LTSA and the processes involved in work disability and RTW.
Although still relatively rare in RTW research, mixed methods have led to valuable new insights into the work disability and RTW process (Krause et al, 2001). The combination of using qualitative and quantitative methods here will ensure that the design is responsive to the research problem. In particular, the qualitative research is used in order that it may tell the story behind the comparative quantification. It may also reveal insights that confirm findings from the quantitative study which in turn builds strength into this research.
8.0 CHAPTER 8 STUDY TWO - STRUCTURAL ANALYSES

8.1 INTRODUCTION

The results of Study One substantiated several objectively determined individual domain barriers to RTW and predictors of RTW outcome and established the phase specificity of a number of risk factors of prolonged work disability using the large administrative database of the occupationally diverse Anon Force in the UK. The findings suggest that injury/illness especially MIH, job role, sex and number of episodes of LTSA during the two year study period are significant individual domain barriers to RTW and represent important risk factors for prolonged work disability. They also provide support for the importance of using outcome measures of duration and phase specificity in addition to RTW outcome.

It was noted however that Study One was limited by the frequency data that was available in the administrative data source and accordingly the findings should be interpreted cautiously, as possible indicators of barriers to RTW, and that more detailed analyses need to corroborate and detail these results. Moreover, no data for the organisational or societal domains were available from the administrative data source and therefore their effects could not be estimated within Study One's design.

Because of the limitations of the data in Study One, there is a need to understand the story behind the comparative quantifications. There is a need to corroborate the objectively determined individual domain barriers of illness/injury especially MIH, job role, sex and number of episodes of LTSA during the two year study period and detail how they contribute to prolonged work disability. Moreover, there is a need to identify and elaborate; additional barriers and enablers to RTW from LTSA from the perspective of the long term sick, the developmental course of these factors, and the differential effects that factors from the different domains have on the long term sick. To this end there is a real need to tap the personal experiences of the work disabled, to understand the personal meaning they ascribe to different aspects of their LTSA experience and the influence this can have on RTW outcome and duration of absence.

The aim of this second study is to describe the experiences of police staff and police officers who have been or remain on LTSA. In so doing, this study will provide new
information about barriers and enablers to RTW from LTSA from the perspective of the long term sick and the processes involved in work disability and RTW.

This study therefore seeks to answer the research question: what factors act as barriers and enablers to RTW from LTSA from the perspective of the long term sick; what is the developmental course of these factors on the disability timeline; what personal meaning do the long term sick ascribe to the different aspects of their LTSA experience and what is the effect of this on RTW outcome and absence duration; and what interactions are there between factors from the different domains. In depth semi structured interviews are used to gather the data and qualitative content analysis is used to analyse the data (Krippendorff, 1986).

This chapter reports the study details and provides a brief analysis of the structural features of the data. The detailed thematic analyses follow in Chapter 9.

8.2 METHODS

8.2.1 Sample

The sample compromised 62 employees of the Anon Force. They were recruited from the dataset of Study One. Six hundred and six cases were randomly selected from the LTSA dataset using a ten per cent random sampling technique within SPSS. For both the random sample and the resultant Study Two sample, percentages were compared with the overall sample for significance differences and none were obtained. Both sub groups were found to be representative of the LTSA group in Study One with regard to the variables staff type, sex, RTW status, single vs. multiple episodes of LTSA during the study period, job role, rank/grade and illness/injury (see Appendix 5).

In November 2003, each person in the random sample was written to by the researcher and invited to participate in the research. One hundred and seventeen people responded, representing a response rate of 19.3 per cent, and of those a total of 62 participated in the research. A further nine letters were returned to sender as address unknown and five members of the public rang the researcher to say the addressee did not reside there.
### Table 8.1 Summary of Sample Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>male</td>
<td>41</td>
<td>66.1</td>
</tr>
<tr>
<td>female</td>
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<tr>
<td><strong>Age Years:</strong></td>
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<tr>
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<td>56-59</td>
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<td>M = 43.48 years, SD = 6.67</td>
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<td>Married and separated</td>
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<td>M = 18.01 years, SD = 7.1</td>
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<td>Middle</td>
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<td>Supervisor/lower</td>
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<td>lowest</td>
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<td>83</td>
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<td><strong>Rank/grade - Staff:</strong></td>
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<tr>
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<td>Middle</td>
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<td>Supervisor/lower</td>
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<td>68.7</td>
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<tr>
<td>lowest</td>
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<td>25.0</td>
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<tr>
<td><strong>Job role - Officers:</strong></td>
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<tr>
<td>Sedentary</td>
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<tr>
<td>Physical</td>
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<tr>
<td>Multiple</td>
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<td><strong>Absence Phase Groups:</strong></td>
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<tr>
<td>RTW (91+ days (group b; chronic)</td>
<td>31</td>
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<tr>
<td>Not RTW (group c)</td>
<td>13</td>
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<td><strong>RTW Outcome</strong></td>
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<tr>
<td>Yes (a + b)</td>
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<td>79.0</td>
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<tr>
<td>No (c)</td>
<td>13</td>
<td>21.0</td>
</tr>
</tbody>
</table>
8.2.2 Measures

Measurement of Predictor Variables

An in-depth semi-structured interview protocol was designed to obtain detailed information about the experience of being on long term sickness absence and the barriers and enablers to returning to work (see Appendix 6). The style was informal and conversational; exploratory, flexible, and used largely open-ended questions. Participants were asked to respond to specific questions on demographics, education, employment with the Anon Force and medical history. Participants were then asked to respond to open questions which were derived from the study aims. The exact open themes were:

- Can you now tell me your story of being long term sick, everything you can recall about the experience from the moment of illness/injury or going off until you RTW/now?
- Please can you now describe all the contact you have had to date with your line manager? Repeated for Personnel and the Occupational Health Unit.
- Please can you now describe what role each of the following people played during your LTSA? Can you describe things that helped or hindered you and say why? Repeated for family, friends, colleagues, GP, line manager, Occupational Health Unit, Personnel and the Federation/Union.
- From your own experience of being on LTSA, what do you think are the main barriers/enablers to RTW? [Probe for things that hindered/helped RTW].
- What have you found to be the main difficulties of being on LTSA?
- What things have you done to help yourself RTW?
- What things has the service done to help you RTW?
- What is your personal objective now with respect to work?
- What would need to happen to make it possible for you to RTW?
- What if anything would you like to see change about the way LTSA is managed in the Met?

Measurement of Outcome Variables

The interview data enabled the following outcome data to be extracted: start and
finish dates of all long term sickness absences and number of calendar days lost for each episode of absence. These data were used to form three outcome measures: RTW Outcome, Absence Phase and Calendar Days Lost (CDL).

RTW outcome was operationalised as the return to work or not return to work for that episode of LTSA by the beginning of the Study Two interview period, 1-2-2004. Absence Phase was operationalised by applying the disability phase specific approach to the duration of absence used in Study One (Krause and Ragland, 1994). The sub acute phase was defined as continuous work disability (absence) of up to 90 days (inclusive), and the chronic phase was defined as continuous work disability (absence) of 91+ days. CDL was operationalised as the total number of unbroken consecutive calendar days off work calculated from the date of injury/illness onset.

8.2.3 Procedure

Six hundred and six employees of the Anon Force were written to in late November 2003 inviting them to participate in the project (see Appendix 4). Because of sensitivities surrounding the work carried out by the Anon Force, and because of the sensitivity of the research issue and the need to maintain employee anonymity from the researcher, it was agreed that a letter of invitation would be drafted by the researcher but then sent by the Anon Force via Personnel on official letterhead. The letter explained the purpose of the research and invited recipients to contact the researcher if they agreed to participate in an in depth interview at their choice of venue. The letter contained a statement explaining that up to the point of them making contact with the researcher, their identity was unknown to the researcher, and after they made contact with the researcher, the police service would not be informed of who had agreed to participate.

Participant anonymity from the researcher at the point of invitation and from the Anon Force at the point of response was seen as being particularly important in order to ensure that people did not think their identity and home details had been released to the researcher and also because of the potential for non participants to be stigmatised for what could be interpreted as non co-operation in a project that aimed to develop understanding of the barriers and enablers to RTW. Draft letters were submitted to the thesis supervisors before being sent.
Between February and July 2004 sixty two in depth, semi structured, face to face interviews were conducted. Each interview averaged three hours as did the travel time, equating to an average of 6 hours per appointment. Participants were told of the purpose, aims and methods of the study and assured that their anonymity would be preserved during and after the research process. They were told that no individual data would be released to anyone, including the Anon Force, and only aggregate data would be reported. It was explained the exception to this would be the use of some quotes, for which permission was sought.

All participants signed informed consent forms (see Appendix 7) and most were interviewed either at their home or at work. Two chose to meet at the local police recreational club and two chose local coffee houses. Interviewing continued until the core themes in the interviews were being consistently duplicated. There appeared to be saturation of data as no new information was gained from the last four interviews.

8.2.4 Data Analyses

i) Group Comparisons

Data analysis was undertaken using SPSS 10 for windows to determine descriptive frequencies and means of the demographic variables and to conduct univariate and bivariate analyses on absence phase and RTW groups.

8.3 RESULTS

8.3.1 Group Comparisons

Table 8.1 presented previously, summarised the demographic and job characteristics of the sample. RTW rates for the sample were: 29 per cent of respondents RTW within 90 days (group a, sub acute); 50 per cent of respondents RTW in 91+ days (group b, chronic); 79 per cent RTW by the beginning of the Study Two interview period (a + b, RTW group); and 21 per cent had not RTW by the beginning of the Study Two interview period (group c, Not RTW group).

A series of one-way between groups analysis of variance, bivariate correlations, independent-samples t-tests and chi squared tests, where appropriate, were conducted to identify possible differences between the different absence groups with respect to RTW outcome, duration of absence and absence phase. Regarding RTW
outcome and duration of absence, comparisons between the RTW (a + b) and Not RTW (c) groups yielded no significant differences with respect to staff type, sex, age, years of service, single/multiple episodes of LTSA during the study period, or job role (see Appendix 8 for a detailed summary). There was a significant difference between the RTW (a + b) and Not RTW (c) groups with respect to prior longstanding history of MIH. Respondents who failed to RTW were much more likely to have a prior longstanding history of MIH than respondents who did RTW (38.5% and 8.2%) ($\chi^2=7.6, df=1, p<0.025$). Moreover, respondents with a prior longstanding history of MIH were significantly more likely to have a current diagnosis of MIH than any other diagnosis (88.9% and 11.1%) ($\chi^2=15.45, df=1, p<0.001$). Respondents with a prior longstanding history of MIH also had significantly longer episodes of LTSA ($M=575.11$ days, $SD=424.53$) compared to respondents without a prior longstanding history of MIH ($M=266.32$ days, $SD=285.09$), ($t(60)=-2.787, p=0.025$, two tailed. There was no association between sex and prior longstanding history of MIH.

Considering absence phase, there were two significant differences, prior history of MIH and staff type. Respondents who failed to RTW were much more likely to have a prior longstanding history of MIH than respondents who RTW in the chronic or sub acute stages (38.5% and 12.9% and 0%) ($\chi^2=9.13, df=2, p<0.01$). Of the nine respondents who had a prior longstanding history of MIH, none were in the RTW in $\leq 90$ days group; four were in the RTW in $\geq 91^+$ days group; and five were in the Not RTW group.

Regarding staff type, significantly fewer police officers RTW within the $\leq 90$ days sub acute group (a) compared to police staff (21.7% and 50.0%). However, significantly fewer police staff RTW in the $\geq 91^+$ days chronic group (b) compared to police officers (25.0% and 58.7%) ($t=6.13, df=2, p<0.05$). No association was observed between staff type and the Not RTW group with respect to RTW rates (c).

Analysis of the two staff types separately revealed that for both, females (officers, $M=483.90$, $SD=397.18$; staff, $M=327.00$, $SD=404.55$) took statistically equivalent lengths of absence compared to males (officers, $M=269.83$, $SD=273.29$; staff, $M=220.00$, $SD=276.53$). For the variable job role, there was a trend for those in sedentary roles in both staff types to take longer absence episodes compared to those in physical job roles although this just failed to reach statistical significance.
Police Officers in sedentary roles ($M=376.72$, $SD=372.79$) took longer to RTW on average relative to those in physical, uniformed roles ($M=298.42$, $SD=295.60$) as did Police Staff in sedentary job roles ($M=340.66$, $SD=399.64$) relative to staff in physical roles ($M=153.50$, $SD=197.20$).

Regarding type of illness/injury, Table 8.2 summarises the diagnosis at the time of interview, RTW outcomes and the calendar days lost (CDL). Musculoskeletal followed by MIH were the most common diagnoses for both staff types. This was followed by Neoplasms, with the remaining diagnoses being combined into All Others. For both the overall sample population and within the two staff types, the sickness absence profile was very similar, and largely supports the quantitative findings from Study One. Most significantly, while musculoskeletal was the most common diagnosis, accounting for 44 per cent of the long term ill/injured, it accounted for only 15 per cent of those remaining off work and 22 per cent of the total CDL. In contrast, while MIH comprised 32 per cent of the long term ill, it accounted for 54 per cent of those who did not RTW and 48 per cent of the total CDL. No association was found between sex, age, staff type or job role and any diagnostic category.

<table>
<thead>
<tr>
<th>Table 8.2 Summary of Type of Illness/Injury Rates and CDL**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
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<tr>
<td></td>
</tr>
<tr>
<td>Illness/Injury</td>
</tr>
<tr>
<td>Musculoskeletal</td>
</tr>
<tr>
<td>Mental Ill Health</td>
</tr>
<tr>
<td>Neoplasms</td>
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<td>All others</td>
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<tr>
<td>Mental Ill Health</td>
</tr>
<tr>
<td>Neoplasms</td>
</tr>
<tr>
<td>All others</td>
</tr>
<tr>
<td>Staff type Total</td>
</tr>
</tbody>
</table>

Data period 1.11.2000 to 31.01.04 *Diagnosis at time of interview **Calendar Days Lost

In terms of RTW rates in the three absence phase groups (a, b, c) for the different diagnostic categories, Table 8.3 presents the rates. For the overall sample population, the diagnostic categories differed significantly in RTW rates ($\chi^2=13.79$, df=6, p<0.05). MIH and Neoplasms had similar RTW patterns. MIH was associated
with a disproportionately low RTW rate in the RTW in ≤ 90 days sub acute group (a), and along with Neoplasms, had a disproportionately high presence in the Not RTW group (c). In contrast, Musculoskeletal and All Others categories both had RTW patterns which showed ninety per cent of respondents RTW; forty per cent within the RTW in ≤ 90 days sub acute group (a) and fifty per cent in the RTW in ≥ 91+ days chronic group. Comparison of the RTW rates for the two staff types in the three absence phase groups for the different diagnostic categories revealed a significant difference in RTW rates for musculoskeletal (2=8.92, df=2, p≤0.025). Police officers had a disproportionately high presence in the chronic group compared to police staff. No other between group differences were observed within the absence phases for diagnostic categories.

Regarding duration of absence, as was found in Study One, a relatively small number of respondents accounted for a disproportionately high percentage of CDL. Table 8.3 shows that respondents in the RTW in ≤ 90 days sub acute group (a) accounted for only 5 per cent of CDL, while respondents in the RTW in ≥ 91+ days chronic group (b) accounted for 37.5 per cent. However, those in the Not RTW subgroup (c) while only totalling thirteen accounted for nearly 60 per cent of the total CDL. The diagnostic breakdown of this sub group was Musculoskeletal 2; MIH 7; Neoplasms 3; All Others 1.

Table 8.3 Summary of RTW Rates by Diagnosis and RTW Phase and CDL’s by RTW Phase

<table>
<thead>
<tr>
<th>Diagnostic Category</th>
<th>Absence Phase Group</th>
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<th>Mental Ill Health</th>
<th>Neoplasms</th>
<th>All Others</th>
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<tr>
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<td>N</td>
<td>RTW rate</td>
<td>N</td>
<td>RTW rate</td>
<td>N</td>
</tr>
<tr>
<td>RTW (90 days a; sub acute)</td>
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<td>40.7</td>
<td>2*</td>
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<tr>
<td>RTW (91+ days b; chronic)</td>
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<td>51.9</td>
<td>11</td>
<td>55.0</td>
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<tr>
<td>Not RTW by 1-2-2004 (c)</td>
<td>2</td>
<td>7.4</td>
<td>7*</td>
<td>35.0</td>
<td>3*</td>
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<tr>
<td>Total</td>
<td>27</td>
<td>100</td>
<td>20</td>
<td>100</td>
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<table>
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<th>CDL’s</th>
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<th>Mental Ill Health</th>
<th>Neoplasms</th>
<th>All Others</th>
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<td>Mean S.D.</td>
<td>Mean S.D.</td>
<td>Mean S.D.</td>
<td>Mean S.D.</td>
</tr>
<tr>
<td>RTW (90 days - sub acute)</td>
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<td>6.36</td>
</tr>
<tr>
<td>RTW (91+ days - chronic)</td>
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<td>58.05</td>
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<td>Not RTW by 1-2-2004</td>
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<td>.70</td>
<td>887.28</td>
<td>275.75</td>
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<tr>
<td>Overall</td>
<td>162.29*</td>
<td>155.95</td>
<td>461.45*</td>
<td>377.86</td>
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<table>
<thead>
<tr>
<th>CDL Totals</th>
<th>N</th>
<th>CDL</th>
<th>% CDL</th>
<th>Mean CDL</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTW ≤ 90 days (sub acute)</td>
<td>16</td>
<td>980</td>
<td>5.1</td>
<td>54.14*</td>
<td>24.24</td>
</tr>
<tr>
<td>RTW ≥ 91+ days (chronic)</td>
<td>31</td>
<td>7227</td>
<td>37.5</td>
<td>233.70*</td>
<td>116.51</td>
</tr>
<tr>
<td>Not RTW by 1-2-2004</td>
<td>13</td>
<td>11084</td>
<td>57.5</td>
<td>852.70*</td>
<td>257.96</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>19291</td>
<td>100</td>
<td>311.14</td>
<td>323.96</td>
</tr>
</tbody>
</table>
A one way between groups analysis of variance was conducted to determine the impact of diagnosis on overall length of absence episode. There was a significant difference at the \( p < .001 \) level in length of absence for the four diagnostic categories (Table 8.3 for means and S.D.) \( (F(2, 58) = 6.702, p \leq .001) \). Post hoc comparisons using the Bonferroni test within the analysis of variance indicated that the mean length of absence for MIH was significantly different from Musculoskeletal and All Others but not Neoplasms (all \( p < .001 \)); Neoplasms was significantly different from Musculoskeletal and All Others but not MIH (all \( p < .001 \)); Musculoskeletal was significantly different from MIH and Neoplasms but not All Others (all \( p < .001 \)). All differences were in a positive direction except for Musculoskeletal and All Others.

A further comparison was undertaken to investigate any differences in length of absence between the three absence phase groups (Table 8.3 for means and S.D.). There was a significant difference at the \( p < .001 \) level in length of absence for the three absence phase groups \( (F(2, 59) = 125.84, p \leq .001) \). Post hoc comparisons using the Bonferroni test within the analysis of variance indicated that the mean length of absence for each of the three absence phase groups (a; b; c) were significantly different at the \( p < .001 \) level. A review of the figures in Tables 8.2 and 8.3 highlights the range of absence that can elapse even among the long term work disabled. The particularly profound impact that MIH can have on the duration of work disability is clearly evidenced in both the mean duration of absence and total CDL consumed by this diagnosis.

**8.4 DISCUSSION**

The aim of Study Two was to identify the barriers and enablers to RTW from LTSA from the perspective of the long term sick and the processes involved in work disability and RTW, and as part of this, corroborate and detail the equivalent quantitative analyses from Study One. The corroboration of quantitative findings is important because it confirms the equivalence of key characteristics of both samples and provides confidence in the reliability of the qualitative data from Study Two.

The quantitative analyses of Study One suggested that the individual domain barriers illness/injury especially MIH, job role, sex [duration only] and number of episodes of LTSA during the two year study period were important contributors to prolonged work disability while staff type had no significant influence on RTW rates or absence
duration. The more detailed analyses of the structural features of the qualitative data indicate that while some of these objectively determined findings were sustained as barriers to RTW in Study Two not all were. The results are now discussed.

8.4.1 Summary of Results

Descriptive analyses confirmed that as with Study One the vast majority of respondents on LTSA did RTW. Moreover for the relative few who did not RTW, they accounted for a gross disproportion of the CDL. As was also found in Study One, police officers and police staff had equivalent RTW rates. They were also found to RTW in equivalent timeframes. Moreover, the overall illness/injury profile was very similar to that of Study One with Musculoskeletal dominating as a diagnosis while MIH dominated with respect to lost time. Additional variables that were unavailable in Study One but were analysed here and found not to be related to RTW outcome or prolonged work disability were age and years of service.

Type of Illness Injury

Based on the results of Study One, the opening proposition regarding the role of injury/illness in prolonged work disability was that it is a significant barrier to RTW. In particular, the role of MIH was found to be a major contributor to low RTW rates and prolonged work disability. Findings from the present study corroborated that MIH is a highly significant barrier to RTW. Those with a MIH diagnosis had both significantly lower RTW rates relative to all other diagnostic categories with the exception of Neoplasms, and substantially longer episodes of LTSA [all but 2 episodes were chronic or Not RTW absence phases]. This was found to be the case irrespective of sex, staff type, age, or job role. However, in addition to these global qualities, what has come out in this detailed analysis is the criticality of a prior longstanding history of MIH as a barrier to RTW and the very close association between a prior longstanding history of MIH and a current diagnosis of MIH.

In addition, Neoplasms was confirmed to be a significant barrier to RTW demonstrating both significantly lower RTW rates relative to all other diagnostic categories with the exception of MIH, and substantially longer episodes of LTSA. In contrast, musculoskeletal diagnoses were associated with high RTW rates, with only 7 per cent of this category contributing to the Not RTW group. However, absence phase analyses found this diagnostic category to be a barrier to RTW for police
officers. Officers were significantly overrepresented in the chronic phase compared to police staff.

Staff Type
While the overall RTW rates for police officers and police staff were equivalent, absence phase specific analyses revealed that officers had significantly lower RTW rates in the sub acute phase and staff had significantly lower RTW rates in the chronic phase.

Sex
Being a female officer was found to be a barrier only in duration but not in RTW rates in Study One. Being female was not sustained as a significant barrier to RTW either in RTW rate or absence phase/duration both in the overall sample and within the two staff type.

Single vs. multiple episodes of LTSA during the study period
Having one or more episodes of LTSA during the study period was not sustained as a significant barrier to RTW either in RTW rate or absence phase/duration.

Job Role
Being in a physical job role was not sustained as a significant barrier to RTW in terms of absence phase/duration within police staff. Being in a sedentary job role in both staff type just failed to reach statistical significance as a barrier to RTW in terms of RTW rate and absence phase/duration.

8.4.2 Implications of Results
The results of the structural analyses of the qualitative data corroborate the significance of illness/injury as a significant barrier to RTW and the major effect that a diagnosis of MIH, Neoplasms and Musculoskeletal can have in terms of prolonging work disability. Further insight was gained into the characteristics of the MIH barrier with the emergence of the criticality of a prior longstanding history of MIH problems. The significance of this pre morbid factor highlights the relevance of pre existing conditions as potential barriers to RTW from LTSA and their possible relationship with current state barriers.
Regarding staff type, as in Study One, the significance of this factor was not apparent from the outcome measures of RTW outcome or duration of absence. However, as with Study One, phase specific analyses of variables exposed otherwise undetected significance. Phase specific analyses of staff type revealed a pattern of RTW that saw significantly fewer police officers RTW in the sub acute phase compared to police staff and significantly fewer police staff RTW in the chronic phase compared to police officers. Review and analysis of the diagnostic categories by absence phase revealed that for the musculoskeletal category police officers had a significantly different RTW pattern compared to police staff. Just over 30 per cent of police staff had a musculoskeletal diagnosis however all RTW within the sub acute phase. In contrast, nearly half the police officers had a musculoskeletal diagnosis yet only a quarter of them RTW in the sub acute phase while two thirds RTW in the chronic phase. Examination of the individual diagnoses within the musculoskeletal category revealed those of police staff to be relatively minor or medically uncomplicated ailments including; removal of a bunion, a sprained ankle, and the debridement of an ulcer. By comparison, of the 22 police officers with a musculoskeletal diagnosis, 37 per cent were involved in motor cycle accidents which resulted in serious injuries including fractured vertebrae and femurs.

As to the non significance of the comparable quantitative analyses of the individual domain factors sex, single vs multiple episodes of LTSA during the study period, and job role and the additional factors for this study of age and years of service, this may be due to statistical artefact. The sample size in Study One was very large and it is possible that the observed significances were artefact. The significance levels for the comparative factors were typically larger than those for the illness/injury. Another possibility for the non significance of these variables may be due to a lack of statistical power in the sub sample due to the relatively small size. According to Cohen (1992), the sub sample size provides adequate power (.80) to detect a medium difference between two independent sample means but may be inadequate to detect a medium degree of association in the population [2x2 contingency table with 1 degree of freedom].

Further elaboration of the qualitative findings and their location within the relevant domains will now be undertaken in the detailed thematic analyses which follow in Chapter 9.
9.0 CHAPTER 9 STUDY TWO - THEMATIC ANALYSES

9.1 INTRODUCTION

The structural analyses of the qualitative data in Chapter 8 corroborated the significance of particular injury/illness in prolonged work disability. MIH, Neoplasms and Musculoskeletal (officers only) were shown to be highly significant barriers to RTW. However, not all the objectively determined findings were sustained as barriers to RTW in the qualitative subset as was the case for the factors sex, single vs. multiple episodes of LTSA during the study period, and job role.

The detailed analyses provided significant insight into the characteristics of the MIH barrier with the emergence of the criticality of a prior longstanding history of mental health problems and the very close association between a prior longstanding history of MIH and a current diagnosis of MIH. In addition, detailed analyses supported the importance of including absence phase specificity as an outcome measure in RTW research. Absence phase analysis revealed significant and contrasting RTW rates in the sub acute and chronic absence phases for the two staff types which reflected at least in part the impact of diagnostic disparities, masked by broad diagnostic categories. The structural analyses seem to have flagged up some new findings which require further explanation. The aim of this chapter is to elaborate in some detail the LTSA experiences of the 62 police officers and police staff that were quantified in Chapter 8. Detailed mapping of the thematic analyses from the qualitative data will be located within the relevant domains. These are now reported.

9.2 METHODS

9.2.1 Content Analyses

Microsoft Word was used to transcribe and code interviews. The data were analysed using qualitative content analysis (Krippendorff, 1986). An inductive process of coding was used, deriving the categories and the themes from the data (Weber, 1990). Initially, interview transcripts were re read several times in an effort to identify broad concepts and margin notations were made when something of potential importance was identified. The unit of analysis was the complete thought, ranging from one word to several sentences. As all respondents were discussing the same topics and were asked the same basic questions, segments were examined for relationships. After
preliminary coding of the general concepts such as communication, significant quotations were organised onto the computer accordingly and totalled 78 pages. Once this was complete, a hard copy was printed. During this period of analysis, data displays were used as a way to pull out and organise categories from the mass of words that had been collected. While cutting and pasting quotations into categories was time consuming, it paid off in the long run by offering visual evidence of the core themes to emerge from the data. In total, nineteen categories emerged and quotations were then cut and pasted into each one. After this, the coding proceeded to the themes embedded in each of the categories and the more specific concepts within the various themes (Patton, 1980; Lincoln and Guba, 1985). The analysis also focused on relationships between categories. Finally, the contents of the categories were checked several times until each expression was placed in one category without overlapping (Patton, 1980; Krippendorff, 1986). During the analysis the researcher was open and sensitive to where respondents and her own insights may take the inquiry. Every effort was made to ensure that data supported interpretations, erring on the side of ‘thick description’ (Stake, 1995). Letting participants speak for themselves was used as a way to show what had emerged.

Tables 9.1a, 9.1b and 9.1c present the categories and themes that contributed to prolonged sickness absence and those that contributed to return to work. They have been located within the relevant domains, that is, societal, organisational or individual. A similar organisation of factors associated with RTW outcomes has been considered previously as a means of showing the breadth of risk factors identified in the current literature (BSRM, 2000; Sinclair et al, 1998).

<table>
<thead>
<tr>
<th>Societal Domain Barriers to RTW</th>
<th>Societal Domain Enablers to RTW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Medical management within NHS</td>
<td>1. Medical management within NHS</td>
</tr>
<tr>
<td>- Misdiagnosis</td>
<td>- Supportive GP and active promoter of RTW</td>
</tr>
<tr>
<td>- 'Wait' time for diagnostics and treatments</td>
<td></td>
</tr>
</tbody>
</table>

Table 9.1a Categories and Themes that act as Societal Domain Barriers and Enablers to RTW
<table>
<thead>
<tr>
<th>Organisational Domain Barriers to RTW</th>
<th>Organisational Domain Enablers to RTW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Contact, Concern and Support from Line Management</strong></td>
<td><strong>1. Contact, Concern and Support from Line Management</strong></td>
</tr>
<tr>
<td>- Lack of contact and show of concern for respondent</td>
<td>- Regular and supportive contact with respondents</td>
</tr>
<tr>
<td>- Lack of commitment to and implementation of the Attendance Management Policy</td>
<td>- Committed and caring approach to assisting respondents RTW</td>
</tr>
<tr>
<td><strong>2. Attendance Management Policy (AMP)</strong></td>
<td><strong>2. No categories or themes identified</strong></td>
</tr>
<tr>
<td>- Can prevent respondents applying for jobs or promotions</td>
<td></td>
</tr>
<tr>
<td>- Lack of professional services and practical RTW assistance / untimely offer of services</td>
<td>- Caring and helpful approach with respondents</td>
</tr>
<tr>
<td>- Unprofessional, uncaring, insensitive approach to respondents</td>
<td>- Professional services and practical RTW assistance</td>
</tr>
<tr>
<td>- Denial of services</td>
<td></td>
</tr>
<tr>
<td><strong>4. Standard of Personnel Services</strong></td>
<td><strong>4. No categories or themes identified</strong></td>
</tr>
<tr>
<td>- Impersonal communications and inadequate information</td>
<td></td>
</tr>
<tr>
<td><strong>5. Internal Investigation Process</strong></td>
<td><strong>5. No categories or themes identified</strong></td>
</tr>
<tr>
<td>- Secretive approach with no access to information</td>
<td></td>
</tr>
<tr>
<td>- ‘Wait’ time for the investigation to conclude</td>
<td></td>
</tr>
<tr>
<td>- Mismanagement during &amp; after the investigation</td>
<td></td>
</tr>
<tr>
<td><strong>6. Recuperative Duties</strong></td>
<td><strong>6. Recuperative Duties</strong></td>
</tr>
<tr>
<td>- Unchallenging work</td>
<td>- Available and suitable to the respondent</td>
</tr>
<tr>
<td>- Unfamiliar work, unfamiliar people, unfamiliar places</td>
<td></td>
</tr>
<tr>
<td><strong>7. Management of RTW Interviews/Case Conferences</strong></td>
<td><strong>7. No categories or themes identified</strong></td>
</tr>
<tr>
<td>- Disorganised meetings, mismanagement of respondent expectations</td>
<td></td>
</tr>
<tr>
<td>- No attempt to reintegrate the respondent</td>
<td></td>
</tr>
<tr>
<td><strong>8. Mechanistic Culture</strong></td>
<td><strong>8. No categories or themes identified</strong></td>
</tr>
<tr>
<td><strong>9. No categories or themes identified</strong></td>
<td></td>
</tr>
</tbody>
</table>
## Table 9.1c Categories and Themes that act as Individual Domain Barriers and Enablers to RTW

<table>
<thead>
<tr>
<th>Individual Domain Barriers to RTW</th>
<th>Individual Domain Enablers to RTW</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Wait and see, passive approach to RTW</td>
<td>* Tenacious, self motivated, proactive approach to RTW</td>
</tr>
<tr>
<td><strong>2. RTW Goal of the Respondent</strong></td>
<td><strong>2. RTW Goal of the Respondent</strong></td>
</tr>
<tr>
<td>* Vague or excluding the Anon Force</td>
<td>* Clear goal with Anon Force</td>
</tr>
<tr>
<td><strong>3. Prior long standing history of mental ill health</strong></td>
<td><strong>3. No categories or themes identified</strong></td>
</tr>
<tr>
<td><strong>4. Daily Routine / Lifestyle Changes</strong></td>
<td><strong>4. No categories or themes identified</strong></td>
</tr>
<tr>
<td>* Replacement of normal work/life routine with unhelpful non work routine</td>
<td></td>
</tr>
<tr>
<td><strong>5. Elapsed Time off Work and the Concomitant Changes</strong></td>
<td><strong>5. No categories or themes identified</strong></td>
</tr>
<tr>
<td>* The longer the absence, the harder it is to RTW due to: feelings of isolation and disconnection; and changes in work relationships and work knowledge</td>
<td></td>
</tr>
<tr>
<td><strong>6. Self Doubt / Loss of Confidence about RTW</strong></td>
<td><strong>6. No categories or themes identified</strong></td>
</tr>
<tr>
<td>* Negative / Limiting Thought Patterns about: Uncertainty about still being able to do the job; Apprehension about what colleagues are thinking; Apprehension about having a relapse after RTW</td>
<td></td>
</tr>
<tr>
<td><strong>7. The Injury/Illness</strong></td>
<td><strong>7. No categories or themes identified</strong></td>
</tr>
<tr>
<td>* Physical and residual disability</td>
<td></td>
</tr>
<tr>
<td><strong>8. No categories or themes identified</strong></td>
<td><strong>8. Family and Friends/Colleagues</strong></td>
</tr>
<tr>
<td></td>
<td>* Supportive and caring contact with a RTW focus</td>
</tr>
</tbody>
</table>

### 9.2.2 Descriptive analyses x Absence Phase Groups

Additional analysis of the transcripts was undertaken in an effort to identify similarities and differences between the three absence phase groups. Groupings were made according to the disability phase specific approach criteria of RTW in ≤ 90 days (group a, sub acute), RTW in 91+ days group (group b, chronic), and those who did Not RTW (group c). Data analyses were undertaken using SPSS10 to determine descriptive frequencies of the categories and themes that acted as barriers and enablers to RTW.

### 9.3 RESULTS

#### 9.3.1 Descriptive Analyses x Absence Phase Groups

Tables 9.2 and 9.3 present a summary of the frequencies and corresponding group percentages of each of the categories and themes as they occurred temporally, within an absence phase group. Each theme is located within the relevant domain. Of the 16 barriers and 9 enablers identified, only one was mutually exclusive; the threat of half pay acted as an enabler to RTW for six respondents in the RTW in 91+ days.
### Table 9.2a Categories and Themes that act as Societal Domain Barriers to Returning to Work

| Societal Domain Barriers to RTW | 
|-------------------------------|--------------------------------------------------|
|                               | RTW ≤ 90 days (sub acute - a) | RTW ≥ 91+ days (chronic - b) | Not RTW 1-2-2004 (c) | All (a+b+c) |
|                               | N=18 %Grp                     | N=31 %Grp                      | N=13 %Grp               | N=62 %Grp    |
| 1. Medical management within NHS |                               |                                |                          |             |
| - Misdiagnosis                | 0 0%                           | 4 13%                          | 4 31%                    | 8 13%        |
| - 'Wait' time for diagnostics and treatments | 0 0%                           | 12 39%                         | 3 23%                    | 15 24%       |

### Table 9.2b Categories and Themes that act as Organisational Domain Barriers to Returning to Work

<table>
<thead>
<tr>
<th>Organisational Domain Barriers to RTW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1. Contact, Concern &amp; Support from Line M' ment</td>
</tr>
<tr>
<td>- Lack of contact and show of concern for respondent</td>
</tr>
<tr>
<td>- Lack of commitment to and implementation of the Attendance Management Policy</td>
</tr>
<tr>
<td>2. Attendance Management Policy (AMP)</td>
</tr>
<tr>
<td>- Can prevent respondents applying for jobs or promotions</td>
</tr>
<tr>
<td>3. Standard of Occupational Health Services</td>
</tr>
<tr>
<td>- Lack of professional services and practical RTW assistance / untimely offer of services</td>
</tr>
<tr>
<td>- Unprofessional, uncaring, insensitive approach to respondents</td>
</tr>
<tr>
<td>- Denial of services</td>
</tr>
<tr>
<td>4. Standard of Personnel Services</td>
</tr>
<tr>
<td>- Impersonal communications and inadequate information</td>
</tr>
<tr>
<td>5. Internal Investigation Process</td>
</tr>
<tr>
<td>- Secretive approach with no access to information</td>
</tr>
<tr>
<td>- 'Wait' time for the investigation to conclude</td>
</tr>
<tr>
<td>- Mismanagement during &amp; after the investigation</td>
</tr>
<tr>
<td>6. Recuperative Duties</td>
</tr>
<tr>
<td>- Unchallenging work</td>
</tr>
<tr>
<td>- Unfamiliar work, people, and places</td>
</tr>
<tr>
<td>7. M'ment of RTW Interviews/Case Conferences</td>
</tr>
<tr>
<td>- Disorganised meetings, mismanagement of respondent expectations</td>
</tr>
<tr>
<td>- No attempt to reintegrate the respondent</td>
</tr>
<tr>
<td>8. Mechanistic Culture</td>
</tr>
<tr>
<td>2 11%</td>
</tr>
</tbody>
</table>

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### Table 9.2c Categories and Themes that act as Individual Domain Barriers to Returning to Work

<table>
<thead>
<tr>
<th>Individual Domain Barriers to RTW</th>
<th>RTW ≤ 90 days</th>
<th>RTW ≥ 91+ days</th>
<th>Not RTW 1-2-2004</th>
<th>All (a+b+c)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(sub acute - a)</td>
<td>(chronic - b)</td>
<td>(c)</td>
<td></td>
</tr>
<tr>
<td><strong>N=18 %Grp</strong></td>
<td><strong>N=31 %Grp</strong></td>
<td><strong>N=13 %Grp</strong></td>
<td><strong>N=62 %Grp</strong></td>
<td></td>
</tr>
<tr>
<td>1. Characteristics of the Respondent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 'Wait and see', passive approach to RTW</td>
<td>2 11%</td>
<td>17 55%</td>
<td>10 77%</td>
<td>29 47%</td>
</tr>
<tr>
<td>2. RTW Goal of the Respondent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Vague or excluding the Anon Force</td>
<td>2 11%</td>
<td>17 55%</td>
<td>10 77%</td>
<td>29 47%</td>
</tr>
<tr>
<td>3. Prior longstanding history of MIH</td>
<td>0 0%</td>
<td>4 13%</td>
<td>5 38%</td>
<td>9 15%</td>
</tr>
<tr>
<td>4. Daily Routine / Lifestyle Changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Replacement of normal work/life routine with unhelpful non work routine</td>
<td>2 11%</td>
<td>11 35%</td>
<td>6 46%</td>
<td>19 32%</td>
</tr>
<tr>
<td>5. Elapsed Time off Work &amp; Concomitant Change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The longer the absence, the harder it is to RTW due to: feelings of isolation and disconnection; and changes in work relationships and work knowledge</td>
<td>6 33%</td>
<td>23 74%</td>
<td>8 62%</td>
<td>37 60%</td>
</tr>
<tr>
<td>6. Self Doubt / Loss of Confidence about RTW</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Negative / Limiting Thought Patterns about: uncertainty about still being able to do the job; apprehension about colleagues' thinking; apprehension about a relapse after RTW</td>
<td>6 33%</td>
<td>12 38%</td>
<td>6 46%</td>
<td>20 39%</td>
</tr>
<tr>
<td>• 3 16.5%</td>
<td>6 19%</td>
<td>4 31%</td>
<td>13 21%</td>
<td></td>
</tr>
<tr>
<td>• 0 0%</td>
<td>4 13%</td>
<td>4 31%</td>
<td>10 16%</td>
<td></td>
</tr>
<tr>
<td>7. The Injury/Illness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Physical and residual disability</td>
<td>14 77%</td>
<td>12 39%</td>
<td>5 38%</td>
<td>31 50%</td>
</tr>
</tbody>
</table>

* Group totals were exceeded when a respondent experienced a category both as a barrier and an enabler, for example, when management contact changed and as a result became an enabler rather than a barrier. ** Three of these respondents were terminally ill.

### Table 9.3a Categories and Themes that act as Societal Domain Enablers to Returning to Work

<table>
<thead>
<tr>
<th>Societal Domain Enablers to RTW</th>
<th>RTW ≤ 90 days</th>
<th>RTW ≥ 91+ days</th>
<th>Not RTW 1-2-2004</th>
<th>All (a+b+c)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(sub acute - a)</td>
<td>(chronic - b)</td>
<td>(c)</td>
<td></td>
</tr>
<tr>
<td><strong>N=18 %Grp</strong></td>
<td><strong>N=31 %Grp</strong></td>
<td><strong>N=13 %Grp</strong></td>
<td><strong>N=62 %Grp</strong></td>
<td></td>
</tr>
<tr>
<td>1. Medical management within NHS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Supportive GP and active promoter of RTW</td>
<td>3 16.5%</td>
<td>4 13%</td>
<td>0 0%</td>
<td>7 11%</td>
</tr>
</tbody>
</table>

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Table 9.3b Categories and Themes that act as Organisational Domain Enablers to Returning to Work

<table>
<thead>
<tr>
<th>Organisational Domain Enablers to RTW</th>
<th>RTW ≤ 90 days (sub acute - a)</th>
<th>RTW ≥ 91+ days (chronic - b)</th>
<th>Not RTW 1-2-2004 (c)</th>
<th>All (a+b+c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=18 %Grp</td>
<td>N=31 %Grp</td>
<td>N=13 %Grp</td>
<td>N=62 %Grp</td>
<td></td>
</tr>
</tbody>
</table>

1. Contact, Concern & Support from Line M'ment
   - Regular and supportive contact with respondents 6 33% 11 35% 3 23% 20 32%
   - Committed and caring approach to assisting respondents RTW
2. Standard of Occupational Health Services
   - Caring and helpful approach with respondents 4 22% 8 26% 0 0% 12 19%
   - Professional services & practical RTW assistance 4 22% 8 26% 0 0% 12 19%
3. Recuperative Duties
   - Available and suitable to the respondent 2 11% 10 32% 0 0% 12 19%
4. Standard of Federation Services
   - Helpful and supportive approach to respondents 0 0% 8 26% 2 15% 10 16%
5. Threat of Half Pay
   - 0 0% 6 19% 0 0% 6 10%

Table 9.3c Categories and Themes that act as Individual Domain Enablers to Returning to Work

<table>
<thead>
<tr>
<th>Individual Domain Enablers to RTW</th>
<th>RTW ≤ 90 days (sub acute - a)</th>
<th>RTW ≥ 91+ days (chronic - b)</th>
<th>Not RTW 1-2-2004 (c)</th>
<th>All (a+b+c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=18 %Grp</td>
<td>N=31 %Grp</td>
<td>N=13 %Grp</td>
<td>N=62 %Grp</td>
<td></td>
</tr>
</tbody>
</table>

1. Characteristics of the Respondent
   - Tenacious, self motivated, proactive approach to RTW 16 89% 14 45% 3 23% 33 53%
2. RTW Goal of the Respondent
   - Clear goal with Anon Force 16 89% 14 45% 3 23% 33 53%
3. Family and Friends/Colleagues
   - 2 11% 8 26% 2 15% 12 19%

9.3.2 Overview of Core Themes x Absence Phase Groups

9.3.2.1 Similarities between the Absence Phase Groups: Barriers

A review of tables 9.2a to 9.3c revealed a number of broad similarities across the disability timeline, reflected in the three absence phase groups. Regarding barriers to RTW: in the organisational domain; lack of contact and show of concern from management, lack of commitment to and implementation of the AMP by management, lack of professional services and practical RTW assistance / untimely offer of services
from Occupational Health, and impersonal communications and lack of information from Personnel, and in the individual domain; elapsed time off work and the concomitant change that ensues, self doubt / negative thinking and uncertainty about still being able to do the job, and the injury/illness were apparent in all three absence phase groups.

9.3.2.2 Differences between the Absence Phase Groups: Barriers

In terms of broad differences in barriers among the absence groups, an initial observation is that in most cases the divide was between the sub acute on the one hand and the chronic and Not RTW groups on the other. Using this divide: in the societal domain, 'wait' times for diagnostics and treatments; in the organisational domain, the unprofessional, uncaring and insensitive approach of the Occupational Health unit, the denial of services, the lack of management of the RTW interviews and case conferences and reintegration of respondents; and in the individual domain, a 'wait and see' passive approach to RTW, vague RTW goal, prior longstanding history of mental ill health, replacement of daily work routine with unhelpful non work routine, and concerns about having a relapse after a RTW, drew distinctions between these two groupings with very few or none of the respondents in the sub acute group experiencing any of these barriers while significant numbers in the chronic and Not RTW groups did.

9.3.2.3 Similarities and Differences between the Absence Phase Groups: Enablers

Regarding enablers there were a number of broad similarities between the three absence phase groups. In the organisational domain, regular and supportive contact from management and management's committed and caring approach were perceived by all three groups to be enablers to RTW. In contrast, the primary differences between the three absence phase groups with respect to enablers to RTW were, in the organisational domain: the caring and helpful approach of Occupational Health and their professional services and practical RTW assistance, and the availability and suitability of recuperative duties, which was noted by sub acute and chronic groups; and in the individual domain, a tenacious, self motivated, proactive approach to RTW, and clear goal to RTW at the Anon Force, which was noted primarily by the sub acute group and to a much lesser extent the chronic and Not RTW groups.
9.3.2.4 Summary

Reviewing the frequencies of barriers and enablers within the three time phases highlights some important issues. Firstly, the broad similarities in the barriers and enablers with respect to the Contact, Concern and Support from Line Management category suggests that management's full engagement in the RTW process, i.e. both in practical and nurturing capacities is needed and when it is apparent it is perceived as an enabler and when it is absent it is seen as a barrier. This would also seem to be the case for the Occupational Health category. Secondly, within the individual domain it is apparent that elapsed time away from work and the concomitant change that follows and uncertainty about still being able to do the job are significant barriers for many even relatively early on, in the sub acute phase, with increasing numbers over time. Similarly, injury/illness emerged as a barrier for all three absence phase groups, although with the interesting feature of decreasing prevalence over time. Thirdly, in terms of differences, the characteristics of respondents and their work goals appear significant in their association with either the sub acute phase group, if determined and clearly defined, or chronic or Not RTW groups if passive and predominately vague.

9.3.3 Content Analyses

An explanation of the categories and themes together with some of the words the respondents used to communicate their experiences is now reported. These categories and themes are not linear and often several were described simultaneously. Although barriers and enablers were both sometimes expressed within one topic, individual respondents communicated a predominant feeling one way or the other on each aspect. The exception to this was when circumstances changed such that a barrier, for example, was replaced with an enabler. Categories and themes of barriers to returning to work are reported first, followed by the categories and themes of enablers to returning to work. Each theme is located within the relevant domain and each domain is reported in turn starting with societal, then organisational and finally individual.

9.3.3.1 Barriers to Returning to Work

A barrier to returning to work is any factor that is perceived to impede the RTW process, thereby lengthening the absence episode. Categories that emerged as
barriers to RTW were: 1. medical management within NHS; 2. contact, concern and support from line management; 3. attendance management policy; 4. standard of occupational health services; 5. standard of personnel services; 6. internal investigation process; 7. recuperative duties; 8. management of RTW interviews/case conferences; 9. mechanistic culture; 10. characteristics of the respondent; 11. RTW goal of the respondent; 12. prior longstanding history of mental ill health; 13. daily routine/lifestyle changes; 14. elapsed time off work and the concomitant changes; 15. self doubt/loss of confidence about RTW; and 16. the injury/illness.

SOCIE TAL DOMAIN BARRIERS

Medical Management within the NHS

Medical management was the only societal domain factor to emerge as a category. Two themes emerged as aspects of this barrier. First was misdiagnosis. One eighth of all respondents experienced some form of significant misdiagnosis which resulted in far more serious outcomes for the individuals. As one respondent described:

The biggest barrier for me initially was getting an accurate diagnosis. I knew something was wrong. I was feeling sick, taking it pretty quiet, and resting much of the time. I kept going back to the doctors but it was so frustrating! I was diagnosed with cancer, but only after going back to the doctor 7 times in 8 months having had choking episodes and constantly being told I was imagining it. [R22 M S G12 NRTW]

The second theme was the wait time it took to receive diagnostic investigations or treatments through the NHS. Just over three quarters of respondents had contact with the NHS in addition to their GP and of those, one third had a substantial wait for their diagnostic investigations or treatments. The most common diagnostic being waited for was an MRI (magnetic resonance imaging) and treatments were most likely to be orthopaedic, such as an arthroscopy, or counselling. Wait times averaged 96 days for counselling, 130 days for an MRI and as much as one and a half years for orthopaedic operations such as hip replacements. As one respondent described:

The day I was injured I was taken to hospital and told I needed an MRI and possible arthroscopy. So I immediately got in touch with Occ. Health [at the MPS] ..... who told me the NHS would only take 4 to 6 weeks. Instead it took 26 weeks. ... Appalling, simply appalling! [R60 M O PC RTW]

Another respondent talked about the wait time from initial consultation with the GP through to the diagnostic biopsy:

1 Coding for respondents is ordered by number [1 to 62], sex [M or F], staff type [O or S], rank / grade, and RTW status.
I developed a lump in my neck. I saw the GP and was referred to hospital but it took 4 weeks just to get an appointment. I then had to wait another 3 months to have a biopsy. I was diagnosed with Hodgkin's lymphoma. I think part of how bad I am today is because of the delay in getting the biopsy done, it just had time to spread. [R9 F O DC NRTW]

Roughly one third of respondents in the chronic and Not RTW groups were significantly constrained by medical mismanagement. They experienced significant delays in their RTW in part due to misdiagnosis and in part due to lengthy waiting times. A number had to wait for months to receive NHS assistance, having been in many cases refused access to Spend to Save funding from the Anon Force. The Spend to Save Scheme is meant to support early rehabilitation intervention by enabling personnel to obtain MRI scans and orthopaedic opinions quickly, via the private sector, in order to make considerable notional savings in reducing time off sick. In this study however, 28 per cent of police officers were denied access to the Spend to Save Scheme, [a separate barrier discussed later] which resulted in them being off substantially longer and developing secondary individual domain barriers.

ORGANISATIONAL DOMAIN BARRIERS

Contact, Concern and Support from Line Management

Contact, concern and support from line management was the second most saturated category in the organisational domain, described by two thirds of respondents interviewed. Two themes emerged as aspects of this barrier to RTW: a lack of contact and show of concern for respondents from line management; and a lack of commitment to and implementation of the Attendance Management Policy. Regarding theme one, two thirds of respondents spoke of the lack of contact and show of concern they experienced and the incompetence of their line management to demonstrate any sign of caring, genuineness or interest in their circumstances. As one respondent described:

My line manager has been absolutely hopeless at any contact. When I went off sick I ended up being sectioned in hospital. But no-one from management came to see me. And when I got home my governor didn't even bother to ring me or visit me. I was forgotten. There was such a lack of communication and support and an utterly useless manager. I am sure I would have come back sooner if I had been listened to in the first place. There is so much changing and going on at work and you need contact to keep you attached and informed. The fact that I had to ring work while I was sectioned just so that I could still feel somehow there says it all really. [R39 M O PC RTW]
Another stated:
After being off three months my Inspector rang, I had not heard from him before this, and he told me that in keeping with the interdivisional transfer policy I was being transferred to another site. I felt so aggrieved and badly treated. I thought to myself, here I am unable to work, fractured clavicle, and I not only get no support I get moved out! This same 'geeeza' Inspector couldn't even be bothered coming to visit one of his troops. So they moved my stuff and that sums it up 'you're just a number to them'. [R58 M O PC RTW]

A further commented:
I felt very disconnected. I have given 25 years and nobody got in touch. The first concern shown by anyone was my DI who called after four weeks! There is an absence management policy but no one implements it. I really got into the mindset of a lack of support from work and that fostered the stereotype of bad, dodgy back and then I felt depressed and then I convinced myself not to RTW. [R32 M O DC RTW]

And another described:
Nobody from management bothered to ring and just pick up the phone and say 'how are you, is there anything you need?'. My line manager never visited me, never phoned and it was me who had to contact him. My governor (Inspector) even used a social event to count as my home visit. He said to me that he didn't like people interfering in other people's private lives. The lack of support was dreadful and you feel completely cut off, no longer a part of it. [R59 M O PS RTW]

Another stated:
When I was off and in hospital I was very worried about my work and so I would ring from the hospital to my HR manager to get reassurance that my job would be ok. The support mechanism was woeful and the lack of concern and reassurance made me feel very frightened and that was a great hindrance for me. [R19 M S G10 RTW]

The overwhelming sentiment among these respondents was a feeling of insignificance which was borne out of a perceived sense of being completely disregarded by line management. The occasional or total absence of any contact and the lack of any demonstration of care, concern and support left respondents feeling unwanted and utterly isolated. With this came a sense of being increasingly out of touch, thus making it even more difficult to RTW and facilitated the development of secondary barriers.

Theme two, lack of commitment to and implementation of the Attendance Management Policy was described by half the respondents. They spoke of the genuine assistance that could have aided their RTW especially through line management following the guidelines of the AMP. Instead respondents portrayed a sense of line management not being committed to implementing the AMP with a view to genuinely helping them RTW. Respondents felt that any contact or support they
did receive from management was merely the result of them 'going through the motions'; doing the bare minimum in order that they could 'cover themselves and tick the appropriate policy boxes'. The majority of respondents felt that what they received was prescribed, minimal and disingenuous. One respondent commented:

I received one phone call which fits with the Attendance Management Policy record of contact. Part of me feels the call was made for that purpose, a tick in the box. Then I had one home visit from my Inspector – because he has to put a tick in the box. That was the extent of communication with my team. You get the feeling that you are not wanted. I know I am dispensable but it's nice to feel and be told you're part of a team and that they care enough to want to help you. You get to the point where you think why bother. [R54 MO PS RTW]

Another stated:

While the policies and procedures laid down in the AMP are thorough and well intended, there is enormous discrepancy in how they are implemented. Nothing that happened to me for the most part came close to the stated intention of the ATM to 'assist and enable me to return to full operational duties as soon as possible'. Rather I experienced a catalogue of setbacks and disappointments that served to alienate me. In particular, because of the perceived lack of care, both formal and informal, and lack of help/support I did not achieve a successful RTW. [R56 MO PC NRTW]

And another described:

My Sergeant would ring and promise to come but then he wouldn't turn up and that made me feel very low. I would look forward to the visits and then I began to get despondent. Officially I got the duty phone call but then I would feel let down. At the end of one call I made to see if he was coming my Sergeant said 'so this call covers us then does it, ok!!' They go through the motions and that's it. There's nothing genuine in what they do, no real help comes from them. [R34 MO PC RTW]

And:

The annoying thing with the Anon Force is I know they have all the policies in place for sickness absence management but they don't follow them. You are supposed to telephone the person on day one and regularly contact them including home visits. I got none of that. It makes you feel so left out and like no-one cares. [R1 F O PS NRTW]

The remote manner in which line management approached respondents resulted in half of them perceiving that management were unconcerned about helping them RTW. As a document, the Attendance Management Policy [ATM] was frequently acknowledged to be fit for purpose, however management's consistent lapses in executing the behaviours and duties laid down in it, which are aimed at assisting respondents RTW, were interpreted as a lack of commitment to the ATM and a barrier to RTW.
Attendance Management Policy

One theme emerged in relation to the Attendance Management Policy as a barrier to RTW: it can prevent respondents applying for jobs or promotions. One fifth of respondents viewed the policy as being penalising and rigid in that irrespective of a respondent’s circumstances, for example if they had a previously unblemished sickness record, they were blocked from applying for promotion or other jobs if their sickness record averaged six or more days per calendar year for the previous three years and/or they had eleven or more occasions of absence over the same three year period. One respondent described:

I was denied the opportunity to go for DCI in 2003. My line manager said he could not support the application because I had been on LTSA and therefore not contributed to the MPS. I thought this was totally unreasonable. I have been dedicated to the force for 20 years, I get knocked off my bike going home from work and then I get this. I appealed and eventually the head of HR said I had been unfairly treated but it was too late for the current year’s process. Forever and a day this has put my career promotion back one year and I’ll never make that up! [R50 M O DI RTW]

Another stated:

With the Anon Force sickness policy you get frightened about going back in case you need to go off again so you stay off. You are almost better off having one episode of longer sickness and being sure you are 100 per cent than going back to work and having to go off again because number of episodes counts more than length. If you have 4 periods of absence of sickness in 1 year you get called to a manager and asked to explain. The policy is like a disciplinary thing. It affects your ability to transfer, it’s a punitive thing and the policy is quite harsh. [R6 F S G12 NRTW]

The Attendance Management Policy was also identified as a potential barrier to remaining at work after returning from an episode of LTSA. One respondent who was off work for several months and had recently returned at the time of interview commented:

Since April I have been acting as the temporary HR manager. I subsequently applied for the job permanently and I have been knocked back on my sickness record, so I am appealing. It seems so unfair that they can put me in the HR manager job as a temp, but will not consider me for the post permanently because of one episode of sickness absence. [R19 M S G10 RTW]

Another respondent who had also recently RTW stated:

I forced myself back, probably too early but I was very keen to get back. But now that I am back they have said I am not going to be promoted to Sergeant because I am on recuperative duties but they are happy to use my knowledge as an Acting Sergeant. I am beginning to get resentful about this and if it wasn’t for my great team I would probably go off sick again. [R42 M O PC RTW]
While all but one respondent who viewed the ATM as a barrier did RTW the underlying issue was the perceived injustices that the policy can create. Stifling opportunity for promotion and the resultant secondary emotional responses, especially resentment, were evident both before and after respondents RTW.

**Standard of Occupational Health Services**

The standard of occupational health services within the MPS was the most saturated category, described by seventy per cent of respondents. Three themes emerged as aspects of this barrier; a lack of professional services and practical RTW assistance or the untimely offer of services; the unprofessional, uncaring and insensitive approach to respondents; and the denial of services. At a more global level, in describing their experiences of occupational health, respondents used relatively strong negative, emotive language which gave a recurring sense of generic disdain for the unit. Respondents said:

'The Occ. Health department gets many complaints because they are so useless' [R27 M O PC NRTW] and 'Occ. Health is a complete waste of time. They don't seem to do, I don't know, just what do they do? They are a corporate ass covering organisation. They are there to make sure you can't sue the job. You can't get them to make a decision' [R46 M O PC RTW] and 'A pain in the backside! It should be closed down, it's a pretend branch' [R49 M O PC RTW] and 'Occ Health were a complete waste of time, I would describe them as shabby and shite!' [R50 M O DI RTW] and 'A waste of space.' [R47 M O PC NRTW]

Theme one, lack of professional services and practical RTW assistance or untimely offer of services was described by seventy per cent of respondents and was seen as something that impeded their RTW. In describing their experiences of LTSA respondents talked of their expectations of assistance from the Occupational Health Unit, especially after receiving letters offering help from the unit. However, respondents noted the minimal support that was forthcoming. Typically no offers of assistance were made, nor were attempts by respondents to contact the unit answered. Respondents spoke of the absence of any comprehensive, coordinated effort to help them RTW. They described a lack of: any form of monitoring process to keep both parties in touch and inform on a respondent's progress, any needs they might have, and their readiness to RTW; assessment of disability and matching to appropriate recuperative duties; completion of the Recuperative Duties Proforma, a document that is meant to guide the respondent's graduated RTW; or any discussion with the respondent about their near and longer term work prospects. A number of respondents also spoke of the inappropriate and unhelpful timing of any offers of
assistance, typically coming after they had RTW. One respondent summarised thus:

There was a complete lack of any real assistance when it was needed. I injured my left knee and was taken to hospital where I was told I needed an MRI and possible arthroscopy. I approached the Occ. Health Unit for Spend to Save funding for the MRI and was refused on the grounds that the NHS would only take 4 to 6 weeks. I was off work for 15 weeks and still had not received the MRI and Occ. Health offered nothing to help me, no physio, no support. Sick of sitting around I pushed to get back and I RTW on recuperative duties and remained on them until I finally got my MRI, 26 weeks post injury, on NHS. After the MRI I again pushed for Spend to Save funding for the arthroscopy but again it was denied. I waited a further 26 weeks for the NHS appointment for the arthroscopy. They’re spending thousands having you sit at home and if only they could organise it better we would be able to RTW. Its left and right hand. Occ. Health have their own budget and they can’t recoup from the line. I estimate that my surgery cost £5000, for 1 week. But I waited 12 months all together at £3000 per month. It’s just crazy! [R31 M O PC RTW]

Another respondent stated:

I received a letter from Occ. Health shortly after going off and the person introduced themselves and said they could help me. The letter said I had been referred to [Occ. Health respondent’s name] and they would ring on this date. The person never rang so I contacted them and asked if someone was coming to visit. I never heard a thing back, no-one ever called and no-one ever visited. After I RTW my CI asked Occ. Health to come visit and assist but again they never did. [R36 M O DC RTW]

A further respondent commented:

I contacted the Occ. Health unit in the first week to try and get some help. They warned me there could be a delay so I should get some private help initially. I got private physio and then got contacted by Occ. Health six weeks later. The Occ. Health unit gave me twice weekly physio. After eight weeks I was referred to another MPS physio who said that the treatment I had received from the other MPS physio might have made me worse – so I was furious. When I was nearing my RTW I got no help from Occ. Health other than they authorised my recuperative duties. I was not issued with a Recuperative Duty Proforma by an Occ. Health Advisor and there was no discussion about my reintegration to work or how the whole recuperative duties plan would work. Nothing. I was just told to turn up. It felt like what I was doing was just to cover the manual rather than a deliberate rehabilitation program. There was no account of matching duties to the person and their capabilities, no discussion of what would happen longer term. [R56 M O PC NRTW]

Another suggested:

Occ. Health have to go through these rules and regulations and so when I contacted them and said I wanted to RTW the CMO said no and would not let me until I was completely pain free, which is utterly unrealistic. This came about because my doctor’s letter said I would always have some pain. So I went to three different consultants, paid for by me, to get letters to ensure I could go back on the streets. Occ. Health was also very slow on offering the rehab help, like Hendon. I sorted out my own physio and rehab initially and then had to really pester to get to Hendon. [R2 F O PC RTW]

Another said:

Before you can RTW from LTSA you have to be signed off by the Occ. Health unit. In my case the unit made contact with me only twice during the 4 months I was off, and that was simply to inquire if I was ok. They
offered no practical assistance at all. Then I contacted them to say I was ready to RTW and they told me they would take care of things their end. But the right and left hand does not seem to know what it is doing and so when I RTW and I was sent home because they had not sent through the paperwork to say I was able to RTW. I had no contact from anyone, no apology. So I was off for another week simply waiting for the paper work to be done. [R48 M O PC RTW]

And:

Getting real help was impossible. Counselling would have been great but it was too far away. I live in Kent and I was expected to travel 1.5 hours each way for a 40 minute session and they wouldn't come to me, even though I had only been out of hospital for a few weeks. It was hopeless, I got not help at all from them or the CMO. I am sure that some help would have made a big difference to me RTW. [R39 M O PC RTW]

And:

I got nothing from Occ. Health until I chased them, and Goring was finally approved for me to attend, 5 weeks after I had RTW. What a waste of time! To get a referral was a nightmare and then not to get any constructive help until I RTW on recuperative duties was a real XXXX breaker. [R61 M O PC RTW]

Respondents expressed strong negative views about the occupational health department and these seemed to be in most cases due to the complete mismatch between what respondents expected from the department based on letters offering help and what they actually received, which in most cases was nothing. Respondents were frustrated by the incompetence of the department, with many having to chase their own treatment actions.

The second theme was the unprofessional, uncaring, and insensitive approach that Occupational Health staff were said to display by half the respondents. One respondent described:

Occ. Health was absolutely useless. I have submitted a formal complaint about them. The nurse called me a liar, they lost 6 medical release forms, I had a CMO certify my illness was Hep C and work related only to change that 2 weeks later to Hep Auto Immune and the doctor no longer works there. [R27 M O PC NRTW]

Another offered:

Thanks to the advice of Occ. Health I was left completely alone in hospital. I was sectioned and could not understand why not one person came to see me. Then I found out that they had advised my manager and team to stay away from me. What ridiculous advice for them to give! [R19 M S G10 RTW]

A further stated:

I was first contacted by Occ. Health in October and asked what was wrong with me. I asked about how they might be able to help me and I was told somebody would get back to me. I didn't hear from them again until February, five months! Then they asked me to go to London to see [Occ. Health respondent's name] in Occ.
Respondents again expressed strong negative views about the occupational health department, this time targeting how they conducted themselves rather than what services they offered. Rudeness and a lack of professionalism and empathy were commonly experienced by respondents which in turn appeared to frustrate and incense respondents as they continued their rehabilitation efforts.

Theme three was the denial of occupational health services. A fifth of respondents described how they were denied access to treatments and diagnostics on the Spend to Save scheme which, in every case, resulted in vastly protracted absence episodes. Others simply had their requests for second opinions or alternative treatments such as osteopathy denied.

I was told I needed an MRI and possible arthroscopy. So I immediately got in touch with Occ. Health about having the MRI through the Spend to Save scheme but I was told to wait for the NHS as it would only take 4-6 weeks. My NHS MRI finally happened after a wait of 6 months – a complete and utter waste of time. After my operation I requested a rehabilitation schedule from Occ. Health in order to get me back to work ASAP, it took 3 months to sort it. In the meantime I saw Occ. Health and asked for a referral to a physical training instructor (PTI). That took 3 weeks and then the PTI said he couldn’t help until he got a doctor’s report detailing what was required. I then had to get the papers from Personnel and take them to the PTI who then said it wasn’t detailed enough. So I went back again to Occ. Health and asked the CMO to write a note. Another 3 weeks passed before I got the new instructions and then I went back to the PTI who then messed me about for another 3 weeks and then he resigned!! I then went back to Occ. Health thoroughly frustrated and asked what the ‘xxxx’ is going on. They then referred me to one of their physio’s, who I saw 10 days later, and was told I should have been to the physio in the first place! [R60 M O PC RTW]

Another described:

I went back to the CMO and asked for the second time for an MRI as I wasn’t progressing far with my back. My request was denied and I was told to wait for an NHS referral to an orthopaedic specialist. After 4 months I saw the specialist who said he could do nothing without an MRI. I went back to the CMO and again asked for funding and was granted it, eleven months after my initial request. I then saw the CMO to discuss the results. I was told I would be on restrictive duties for the rest of my career and no contact with the public. Neither then or now has anyone sat down and talked to me about my future. [R56 M O PC NRTW]

A further respondent commented:

I saw the orthopaedic surgeon, and he said I needed an arthroscopy. I contacted Occ. Health and they offered nothing, no help, no Spend to Save scheme. Meanwhile, because it was going to take 6 months to get a slot, my DI got involved and wrote to the surgeon explaining about the Anon Force’s Spend to Save scheme. Between June and December nothing at all happened except I lost interest in everything. Finally in
December I was given permission to go on the Spend to Save scheme – but it had taken 6 months! And on top of this, instead of using my orthopaedic surgeon, they referred me to another specialist, who was miles from where I lived and I had to go through the whole assessment thing again! [R51 M O DC NRTW]

Another said:

I was at work responding to an accident, went through a red light, was hit by a car and was thrown. I sustained 2 crushed cervical vertebrae. My specialist requested an MRI and I went through the Anon Force to speed things up. They agreed to pay. So far so good. Based on the results I was referred for surgery to relieve the pressure. I again applied to Occ. Health for funding to avoid the NHS delays but it was denied. Initially Dr Cahill Canning said that no funding was possible due to the likelihood of no success. Dr Cahill Canning was re approached by my surgeon and told the cervical surgery had an eighty per cent chance of success and she then responded that there were no further funds. And that is what was soul destroying. Because funding was refused I was off another 8 months until the NHS date came up. I could have RTW a year earlier. It makes you feel like you have no value. You are not worth anything. [R52 M O PC RTW]

One quarter of all respondents including just over one third of respondents in the chronic group were denied treatments or access to the Spend to Save Scheme, resulting in them being off substantially longer than they may otherwise have been and further reinforced feelings of worthlessness and frustration. For some respondents, their described experiences displayed the development of secondary individual domain barriers, including self doubt and resentment which manifested itself in some as a wait and see approach to RTW, and a sense of growing isolation and disconnection.

**Standard of Personnel Services**

In describing their experiences of LTSA, most respondents talked about Personnel and their interactions with that department. The core theme to emerge as a barrier to RTW for nearly half the respondents was: the department’s impersonal and inadequate communications. Respondents described receiving impersonal and insensitive communications either by standard letters, sent variously to: warn of an impending pay reduction to half pay which commences after 180 consecutive days of LTSA; advise of the need for a case review; advise of the need to reduce sickness absence because of the amount of sickness absence; or enclose pay slips; or via the telephone in which case the person’s manner was typically defined as insensitive and mechanistic. Respondents also expressed disappointment at the inadequate information that was communicated, in particular, not being able to secure ‘keep in touch’ packs and other internal communications which they expected Personnel to provide and looked forward to in order to help them keep in touch.
One respondent explained:

I found it offensive that the first contact I got from Personnel was a letter advising of half pay. The reviewing officer then advised me that I would be kept on full pay but only for a further 4 weeks. I found it offensive that thereafter, every 4 weeks I had the additional stress of worrying about pay when I was recovering from a fractured back that I sustained in the line of duty. I felt very angry that the only contact was by letter, it's appalling. They need to apply an intelligent process to the half pay letters. [R35 M O PC RTW]

Another respondent commented:

Personnel were completely disinterested. No phone calls, no contact at all other than a threatening letter saying that I needed a review due to being off but I had already RTW. [R16 F S G12 RTW]

Another described:

It is the little things that matter, that is what I have learnt and Personnel do not have a clue. For example, they sent me a letter; here is a copy, about needing to reduce sickness absence, while I am fighting for my life. This really upset me! Then I received the half pay letter, again it could come with some face to face or telephone contact. Nobody even bothered to ring me other than to check some administrative detail. I would have expected to be contacted with at least a 'how are you, is there anything you need', but nothing. [R3 F O PC RTW]

And:

I got the six month letter from Personnel and I rang them and let fly 'why haven't you bothered to call me before now!' You get injured, you might get some initial support like I did, then it all stops, then you get a letter from Personnel, who haven't even bothered to ring you to see how you are, so I told them to 'xxxx xxx'. [R34 M O PC RTW]

And:

I have found Personnel to be thoroughly frustrating and incompetent with their communication. I have lost count of the number of times I have requested the 'keep in touch' pack, which contains The Job, Notices which are updates in legislation, and Personnel Notices. I got 3 packs in 2 years and now it has completely stopped. I have explained how important it is because it is the main way I receive information about what's going on including any changes to legislation, but still they do not send it. [R8 F O PC NRTW]

One respondent said:

Their attitude was surly and you are so clearly just a number, an entry in a diary or spread sheet that needs attending to. There is nothing personal about Personnel. [R43 M O Di RTW]

Respondents looked to Personnel primarily for information particularly to help them stay in touch, yet most felt that Personnel did a poor job in their communications, in frequency, format and tone, which acted as a barrier.
The Internal Investigation Process

The internal investigation process, which covers all internal inquiries into matters of misconduct, emerged as a category under barriers to RTW, and three themes were identified: the secretive approach that is used to conduct them, with no access to information; the 'wait' time for the investigation to conclude; and the mismanagement of respondents during and after the investigation. Nine respondents (approximately 15 per cent) had been or were involved in an internal investigation during the extended study period from the beginning of Study One to the interview period of Study Two. They described the absence of any attempt to keep them informed during the very protracted investigation process and the lack of any attempts to manage their reintegration after being on LTSA. In all but one case, respondents had been signed off with a MIH diagnosis. One respondent's comments about the experience included:

While the investigation was ongoing I was so completely and utterly abandoned. It is an outrage that a discipline process that is meant to last 42 days can be allowed to go on for a year, during which time I received no support or contact whatsoever. Nobody called me, visited me or anything. I would ring in to see how things were going but it was so demoralising and you feel so alone. Then when it was over, it was just dire coming back because you don't know what changes have gone on, there are new faces, and it is really scary. Now I am just surviving day to day. I have no permanent desk or work area, no set jobs. I simply come in each day, report for work and I am told what to do. The whole process has to be improved upon and cannot be aloud to continuel [R20 F S G12 RTW]

Another described:

I was off sick for a year during which time I was investigated by Complaints but they did not investigate the indecent assault case but whether I had permission to use the Anon Force car after hours — which I did. It took 12 months for Complaints to report their finding that there was no case to answer. Meanwhile I was put on half pay after 6 months and really found it a dark time. I got a home visit from Complaints who served me with notice of the complaint. Other than that I had no visits, no further word from the Complaints unit, and nothing from my team. I feel the management of the whole investigation has been abysmal and the way I have been treated is appalling. That the job can hide behind legislation and not give any information is plain wrong. I was left on the outside for a year, nothing. Management walked away without even understanding the charges. In cases like mine I think it should be mandatory that you are provided with at least the circumstances around the arrest. The complaints process is overly long winded, they do not return your calls and they should, they do not update you, you are left in limbo land and that is unacceptable, there is no incentive to RTW until you know how you have been sold. [R33 M O DC RTW]

All respondents who had cause to be investigated by this internal process found it was a barrier in part because of the isolation they felt in the absence of being given any information, in part because of the very protracted time it took to achieve a
resolution, and in part because of the total lack of any management during the investigation period. All experienced a form of anxiety or depression at some point during the course of their investigation which was then exacerbated by being left, in most cases, without any communication for nearly a year.

**Recuperative Duties**

Recuperative duties emerged as a barrier to RTW for a quarter of respondents and two themes were identified: the unchallenging work; and the unfamiliarity of the work, the people and the work place. Theme one related to the specific nature of work that is undertaken under the banner of recuperative duties, with respondents being critical that it is unchallenging and devaluing. One respondent described:

After ten weeks I instigated my own RTW. I was told I would be on recuperative duties with my relief team, doing emails and filing. I felt very resentful as I did not consider this a proper job and I told them this and that I was happy to wait until they found a real job. I expected them to take care of me and they didn’t and it felt like ‘well there’s a gap in the team so we’ll fill it and [respondent’s name] forgotten. I demanded a different job, one that was real and satisfying and this is when things changed. Inspector [name] gave me the Home Office [job title] for the borough and there was a greater caring of me personally. I RTW and began to feel like somebody gives a damn. It’s important to know people are there for you. [R61 M O PC RTW]

Another commented:

After meeting to talk about coming back to work I was pretty gutted. I was told I would be doing office work and when I asked exactly what that meant I was told it would be basic filing and sending e-mails. I felt strange because I understand there is a lot of sitting around doing nothing and that is soul destroying. You sit around for 4 hours a day doing emails and filing. Just the thought of it puts you off. [R53 M O PC RTW]

Another said:

The problem with recuperative duties is that for us in civil jobs it’s really limited with what can be done and it really just means reduced hours, and that is done for a set period but with no follow up at all as to what and when you should RTW full time. I didn’t hear from them [occ. health] again, no follow up to see how I was getting on, nothing. [R16 F S G12 RTW]

These respondents were motivated to RTW yet the limited / unchallenging nature of the recuperative duties deterred them from wanting to RTW. Moreover, for some there was also an element of personalisation of the nature of the recuperative duties whereby in not being offered a ‘real’ job they perceived that this was synonymous with not being cared for which then acted as a source of resentment.
Theme two was about the contemplation of RTW on recuperative duties and the likelihood that it would entail unfamiliar work, unknown people and a different work place. One respondent described:

For me there was a real fright when I realised that once you leave a job and are off sick for a long time when you are due to RTW on recuperative duties you will be in a new job, with new people you don’t know, and perhaps a different location and maybe you will be put in a job you don't want to do or should I say would not elect to do, such as filing. So coming back doesn't necessarily make you feel good about yourself and the whole thought of this can be a barrier. [R44 M O PC RTW]

Another described:

A big part of the difficulties with going back is you know you are coming back on recuperative duties but you don't know into what office/unit, what job or what you will be doing so you may not know anyone in the office and if you've been off four months the last thing you want is to come back into an office where you don't know anyone because after that long off you want to come back to at least some familiar surroundings/job/people. Familiarity is important as you are a little lacking in confidence anyway and then you have to relearn everything. [R60 M O PC RTW]

Not knowing the people, place or specifics of the work they would be engaged in upon their RTW on recuperative duties was a significant barrier primarily for those in the chronic group, suggesting that these things mattered more as time elapsed. For these respondents there was a real sense of wanting to seek comfort in the known and familiar particularly because of having been off for some time and the resultant feelings that accompany that especially lower confidence, isolation and being out of touch.

Management of RTW Interviews/Case Conferences

Management of RTW interviews / case conferences was described by nearly a quarter of respondents as a barrier to RTW, with two core themes being identified: disorganised, and mismanagement of respondent expectations about the impending RTW; and during the meeting, no attempt to use the opportunity to re integrate the respondent into the work environment. Regarding the first theme, respondents talked about the meetings being disorganised, in particular, how personnel would fail to attend, people would not have familiarised themselves with the case, and respondents would not be asked any questions germane to being on LTSA and their current state. There was also a sense of respondent expectations about the impending RTW being mismanaged, especially in relation to what job a respondent thought he or she would be returning to.
As one respondent described:

These meetings are run appallingly. My case conference dates would be changed without notice and achieved nothing. Then my RTW meeting was a shambles. I met with Personnel, Occ Health, and a DI in Barnes to discuss my RTW. We all sat down and stared at each other. No one seemed to know what to say. I was so surprised. Nobody bothered to ask me how I was, what my medical progress was or anything. The first question was 'what date are you ready to come back?'. The whole meeting lasted ten minutes and I left thinking, this is not what I was expecting at all. I thought they would be interested in me but they were all late as they had been to the pub for lunch and I felt stressed that I had to find my own job. Occ health did not contribute at all and nobody asked me about my treatment even though I had sent a full letter documenting the updates to Regency Street. I asked what they could suggest about work and Personnel said 'I'll see what I can do' but they were completely ineffectual. She ended up telling me I could find my own place. Not one question about me! [R9 F O DC NRTW]

A further respondent stated:

I attended the RTW interview and I was feeling apprehensive because I had become so out of touch. The Superintendent failed to show up and they had lost my warrant card. I felt disappointed. I was then told I would be going back into operational driving duties. I said I did not feel I could do that job yet as I had only been off antidepressants for a few weeks and had tried to commit suicide six months previously. I was told that this was what it would have to be. I felt demoralised and shattered. Two years I had been off and I finally get my life back and can start work again only to find I have to go back to Operations and that my warrant card has disappeared. And so feeling unwanted, worthless and trapped, unable to get a job I could do, I went off, saw my GP, was diagnosed with depression and stress and restarted on anti depressants. [R39 M O PC RTW]

And:

Personnel held a case conference meeting and the head didn't even attend. They sent a clerk along and then when she was challenged about the boss not being at the meeting she said her boss didn't even know about it but my DI reminded her that he had personally rung to remind her of the meeting. [R47 M O PC NRTW]

And:

The case conference in theory is a great idea but in practice, from my experience, they are a complete waste of time. People either did not show up or if they did, they had done no preparation and didn't even know who I was. It certainly didn't make me want to hurry back. [R28 M O PC NRTW]

In complete contrast to the stated purposes of RTW interviews and case conferences [see Chapter 6 for detailed descriptions], which are aimed at ensuring respondents know they are valued members of the force, that they are missed, and plans are discussed about readiness to RTW, these respondents variously attended meetings that were unprofessional and poorly run, and demonstrated a complete breakdown of any cooperative communication between the different departments who are charged with supporting the timely rehabilitation and RTW of respondents. The lack of collaboration between departments was very apparent and represented a significant
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barrier to RTW.

The second theme respondents spoke about was the lack of any attempt to use the RTW interview or case conference as an opportunity to **reintegrate the respondent into the work environment**. One respondent described:

For all the meetings I have attended with Occ. Health, Personnel and my boss, no one has ever sat down with me and talked about my future, what will happen and all that. Nobody has made any attempt to help me feel a part of it all, to help me by discussing what my injuries mean short and longer term for my work and what will happen when I RTW. So I have huge angst and even though I was offered the job that I had liked I know I had disengaged. It felt too late. [R56 M O PC NRTW]

A further respondent stated:

I feel like I lost my place in the line quite unnecessarily. Despite going to case conferences and the RTW interview nobody thought to provide me with any information about changes at work such as with colleagues, legislation, or work policies and when I did ask for a keeping in touch pack, and The Job I never got it. You are just cut off from it and yet it would have been so easy to talk about these things at these meetings and use them to make you feel a part of it again. [R58 M O PC RTW]

These meetings represent an opportunity for information exchange between the respondent and the organisation in order to inform both parties of progress towards the RTW goal. These respondents however felt the meetings were pointless, with an absence of any information being provided to help them feel reconnected.

**Mechanistic Culture**

Recounting their experiences of LTSA, for nearly one sixth of respondents, the culture of the Anon Force emerged as a barrier to RTW. One theme resonated among them all: the Anon Force is a *militaristic* machine-like organisation that continues to operate, irrespective of whether a respondent is present or not, and once a respondent is absent there is an absolute disconnect from the workings of that machine, which creates a significant barrier to RTW.

One respondent described:

It's very much a hierarchy thing in the Anon Force, almost like the military, and when you get sick, you fall out of that system and you are now outside the system and it feels very difficult to get back into the system. The whole thing keeps on without you. It feels quite isolating and it's very debilitating. [R25 F S G12 RTW]

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Another commented:
The Anon Force is great when everything is going well, and that’s why people stay, it’s a pretty good job with pretty good conditions. They look after everyone when you are in the family, but once you are off sick you are no longer in the family and it is very scary, you feel so much the outsider. You feel out of touch very quickly and you wonder how you will get back. [R38 M O PC RTW]

A further respondent said:
You are a number filling a space and when you are broken they send you away and fill the space with another number. The problem comes when you are fixed and ready to go back but you look and see that your place has been taken. We have such a reputation of shutting people out if they are not at work. [R46 M O PC RTW]

Another stated:
I did not achieve a successful RTW and I think at the heart of this negligence is the culture. The operational demands in policing dictate that it is a fully serviced and staffed organisation at all times. So when one of those staff, or numbers because that is what I have learnt we are, gets injured, they just replace you with another one, because the job doesn’t stop so they need to keep moving. But in the meantime the person injured goes off, and the machine has a job to do so it keeps running, but nobody stops to check on the injured and you get left behind. This culture helps to create a situation where those who are unable to ‘do the job’ are viewed as outcasts and no longer fit in. This cultural reaction contributed to an atmosphere of isolation from the [unit name] ‘family’. [R56 M O PC NRTW]

For these respondents there was a sense that the Anon Force was a well engineered entity that has an ongoing job to do and as such in the face of a respondent absenting the system it simply dispassionately dispatches another respondent to fill the gap, which for the respondent metaphorically felt like it had disconnected itself from them. These respondents seemed genuinely aggrieved at what they perceived was the organisation’s response to their absence, i.e. that it continued to function. Underneath this however was a more realistic concern about how to get back into this ‘machine’ once you were separate and isolated.

INDIVIDUAL DOMAIN BARRIERS

Characteristics of the Respondent
One theme emerged in relation to the characteristics of the respondent and how they interacted with their LTSA experience to act as a barrier to RTW: a total of forty seven per cent of respondents, comprising all those who failed to return to work with the exception of three respondents who were terminally ill and could not RTW, and respondents who stated they could have RTW earlier but did not, demonstrated a ‘wait and see’ passive approach to RTW, disengaging when the Anon Force did not
treat them in a way they would have liked. Some respondents re engaged and RTW but only after they felt they had been treated as they had expected. As one respondent described:

After my disastrous RTW interview and feeling utterly let down I think I cut the ribbon and said to myself ‘I am not going to get better while ever I have anything to do with the Anon Force’. I had finally got to a point of coming back, having been completely ignored for months at a time, but nobody would listen to me. I felt alienated then and I feel alienated now and no-one seems to care and yet I am sure if things had been done differently like offering support and a friendly face I could have been back over two years ago. It’s now too late, I have drifted away. I have not been paid in nearly 2 years. [R1 F O PS NRTW]

A further respondent stated:

I went back to work on restricted duties while awaiting an orthopaedic consult. Occ. Health denied my application for an MRI on the Spend to Save scheme. When I did get the scan it showed I had a crushed vertebra at the base of my spine. I had received no offer of any help, despite me struggling on for the previous nearly 2 years organising my own treatments and I went off again. I felt I was making a huge effort and the Anon Force had made no effort at all. While I was off I organised everything for myself and so I am pissed off with the job, the MRI thing brought it home really, and why should I sit at work in pain popping pills and they do nothing. I feel very undervalued and I am not sure for the future. They made no effort on my behalf so why now should I make an effort. It brought it home to me how little they care – I did my job to the best of my ability and they did nothing until the summons and that leaves a bad taste in my mouth. So here I sit, waiting. [R47 M O PC NRTW]

And:

With the way the Anon Force treated me, with nobody contacting me or offering any help I started to think ‘so why should I contact them’. So after a few ‘no shows’ of promised visits and calls I thought they can ‘xxxx xxx’. I felt like a rejected date. You begin to feel resentment against the job because they don’t seem to care and I expected them to take care of me and they didn’t. I was disappointed that my expectations were not met. I thought ‘why should I make all the effort’. I think that is when I lost interest and at the same time years of guilt about working hard came flooding in and it was a force to keep me at home. Suddenly I was thinking ‘now it’s their problem and they can decide what they are going to do with me’. Eventually I got a new governor who came to see me and he was very understanding. We talked about what had happened and it made a huge difference to how I felt. He also said he would organise a job for me. After that I felt ready to continue to do my job. I RTW and I am putting back and am fully committed – so the partnership is working again and is restored but now it is with the caveat that I am not going to invest everything emotionally anymore, like I did before the accident. [R34 M O PC RTW]

And another said:

I was very resentful and very upset with how I had been treated. I felt totally scrambled and every day I got more and more withdrawn. I was feeling a total lack of support and resented the job because of it, they treat you so badly. So I decided to sit in the house and do nothing. Then I got a call and a visit from my DI and for the first time I felt like somebody cared, and he did help a lot. He listened to my story and got an appointment from Occ Health. Basically he gave a caring and genuine approach. Up to that point, trying to navigate through middle management had been a nightmare. After that I decided it was time to let go and get back [to
For these respondents, a passive ‘wait and see’ approach to RTW was a very clear and precise barrier that evidently grew reactively from their LTSA experience. All provided rich visceral descriptions of how they reacted emotionally and subsequently behaviourally to the negative way they perceived they had been treated by the Anon Force. This manifested itself as disengagement from the RTW process.

**RTW Goal of the Respondent**

Respondents’ RTW goals during their LTSA experiences emerged as a category. One core theme became apparent as a barrier to RTW: respondents’ goals with respect to RTW were vague or specifically excluded returning to the Anon Force. This was the case for forty seven per cent of respondents. As one respondent described:

I want a new career now; there is nothing but antagonism between the Anon Force and me. [R1 F O PS NRWT]

Another respondent said:

I do not see myself returning to the Anon Force. [R18 F S G13 NRTW]

A further stated:

Now there is an inclination not to RTW, too much has happened and the crud has meant that the owing of loyalty has gone. A clean start is what is needed. It would have been different if I had received some help because that makes you want to put in. Personnel and Occ Health proved to be a waste of space, completely incompetent. My Super was helpful and locally the job has been very helpful, but globally the organisation has been reactive, indecisive and bureaucratic. [R47 M O PC NRTW]

Another commented:

While I was off, for a lot of the time I couldn’t see the wood for the trees let alone think about work. I was so put out by how I was treated that the last thing I was thinking about was going back. I knew that I would eventually but for a long time I just stayed at home, completely ‘xxxxxx’ at how I had been treated. It was only after my boss got involved that I started to really think about going back. I started to think about what I wanted to do about getting back to work but up until then no chance. [R14 F S Ind RTW]

These respondents lacked any real RTW focus or goal. For some, there was an expressed view that reflected a vague goal of some eventual RTW. For others there was a clear sense that they had reached the final stage in a process of disengagement which had resulted from their negative experiences of LTSA which they defined as a catalogue of oversights, errors and omissions in terms of the way they were treated by the Anon Force (6/29 or 21%).
Prior Longstanding History of Mental Ill Health

As respondents recounted their life histories and progressed to tell their stories of LTSA, nine respondents made links between prior longstanding mental ill health and their current LTSA experience. This category resonated a core theme in which there was a sense of not being able to cope with events and this was not restricted to the Anon Force. As one respondent described:

As a child there were emotionally difficult times and my family history has left its mark on me. I have a long history of mental health problems and now I just don’t even want to be there [at the Anon Force]. The whole work issue is a problem for me and it is not just the Anon Force. There is so much pressure and it feels like an accumulation of things and I am just not very good at coping at work. When you speak up people don’t listen and they don’t understand. The Anon Force doesn’t care but I am not there really. The industrial benefits agency gives me a disability allowance but they don’t listen. I feel so let down by everybody – no body wants to help me, not even the benefits people. I have seen a counsellor on and off for years but I don’t know if it helps. [R6 F S G12 NRTW]

A further respondent commented:

I have been on antidepressants for years but generally I am in good health. I take the tablets because they help, especially when I am feeling low or anxious. With this incident at work I just felt that I wasn’t going to cope with this because of emotional problems. I feel under pressure and it’s a lot of things. For example, I had a falling out with my boss who was the office manager because I made a comment about nepotism in the office. But that was only the final thing. I went to the GP and went off sick with anxiety and depression. Now I just feel abandoned and I have had to struggle on my own. No help and I feel depressed and then I get anxious at the thought of having to go back. A lot of the time I feel powerless and I am not sure what that is about. I feel like that a lot and it makes you feel very vulnerable. [R15 F S G12 NRTW]

This barrier was confined to respondents in the chronic and Not RTW groups. In telling their stories about their experiences of LTSA these respondents were frank and clear about their prior longstanding mental health problems and the difficulties it had presented them with throughout their lives especially in relationships and work. While it was evident that this background was a barrier to RTW it was also apparent that the impact exceeded the boundaries of the LTSA event. There was considerable personal disclosure about how it affected their ability to cope with numerous aspects of their life. For some there was a profound sense of being a victim, let down by every group they interacted with.

Daily Routine

Almost one third of respondents described the loss of their daily work routine as an important component of not returning to work. The core theme to emerge was that a barrier is created when the normal work day routine is displaced by an unhelpful non
that relatively quickly becomes the accepted new daily routine. As one respondent described:

There is this thing that happens when you adjust to 'not going to work' to the point where I wondered how I ever had the time to go to work. I was starting to enjoy my new routine around myself and it involved walking the dog, doing tai chi in the park, a few house chores, and with this occurring simultaneously to the withdrawal of Anon Force contact it seduces you towards a new way of life and it's a huge barrier to get over to get back to work. [R34 M O PC RTW]

A further respondent stated:

One of the biggest problems for me being off was the whole change to your day and how quickly that becomes your accepted day. The first thing that happens is you stay in bed longer than you need to and you start to feel lower, not depressed, that would be too strong, and you see things you'd like to do but you can't. You have lost your whole routine, there are no challenges, there is no purpose, no motive to get on and do anything and so you don't, including any effort to get yourself back to work. [R35 M O PC RTW]

Another commented:

At the two month mark of being off sick I noticed I started to go downhill and it wasn't the physical things. I became teary, unable to sleep, I would wake up early, I started overeating, I thought about death a lot and my own mortality and I had a vision of killing my boys, I felt a huge loss of confidence, I felt vulnerable, and I got very low. I think most of it was really down to having lost my routine and my sense of being which meant I had too much time on my hands and I felt like I was on a bad course and getting worse. [R58 M O PC RTW]

And another stated:

When you are off work you become used to being off work, it becomes pleasurable and you begin to make jobs for yourself. You make a new life for yourself and then this becomes the routine you expect. And this is the really dangerous thing, because you start to forget all about work, especially when nobody is contacting you. [R29 M O PC RTW]

There was a real sense among these respondents of getting use to being off. In some cases, in a surprisingly short space of time they accommodated a new non work unhelpful lifestyle, creating new non work activities, and in so doing displaced the attending work lifestyle efficiently and effectively. The ease with which this could happen was helped by a lack of contact from the Anon Force.

Elapsed Time off Work and the Concomitant Changes

Elapsed time off work was the most saturated category in the individual domain, described by sixty per cent of respondents interviewed. Two themes emerged as aspects of this barrier to RTW: the longer the work absence, the harder it is to RTW because of the isolation and disconnection that respondents begin to feel; and the
longer the work absence the harder it is to RTW because the greater the changes in staff, which means having to build new relationships, and the greater the loss of work knowledge, which means increased feelings of being out of date and left behind. Regarding the first theme, respondents spoke of the ever growing difficulties of RTW as their time off increased and that a large part of this was because of the isolation and disconnection they felt from the Anon Force. As one respondent described:

The longer you are off the harder it is to return. Eventually you just don't want to come back, and that was me, who up until now had really enjoyed 25 years of front line police work. Over time you become detached, not part of it and this isolation makes you feel remote and is a huge barrier to get over. Nobody wants to go back to something that just represents the unknown and therefore stress. [R26 M O Insp RTW]

Another respondent stated:

The biggest barrier is the isolation. I was off work for 15 weeks, waiting, and as time progressed I felt so isolated. I didn't know many people in the unit I was in at the time of the accident so that made it difficult as well. Of those I knew some rang, others didn't and I felt alone. You are out of the loop, you don't know what's going on and the longer you are off the more isolated you feel and the more difficult it becomes to go back. [R60 M O PC RTW]

A further respondent suggested:

For me the biggest barrier was this huge disconnect I felt and the fact that it just seemed to get worse and worse the longer I was off. I was feeling completely let down by the Anon Force, I didn't want to RTW. [R51 M O DC NRTW]

As to the second theme, respondents spoke of increasingly feeling left behind both in terms of their relationships with existing and new colleagues and their work based knowledge. This made them feel out of date and acted as a significant barrier to RTW. As one respondent offered:

The longer I was off the more I missed out on updates, legislation changes, and work policy changes and you become out of date very quickly and by out of date read obsolete or redundant and if your knowledge is obsolete and part of how you define the value you bring to your work is your knowledge then you feel obsolete or redundant and that is just how I was feeling. With policing it is always changing, technology changes, personnel changes. You get less and less contact, even when you know people and that means you have to reform completely your relationships. You start to feel really unsure about going back because so much has changed. [R54 M O PS RTW]

Another respondent said:

When you are off it is hard to come back because you are scared that things have moved on and you have stayed behind. For example when I was off I heard that the whole computer system had changed. I experienced a real loss of confidence to do the job and get back in and pick up the threads. I was also scared
about the new faces, learning new work, and new members of staff. And you are not given any help. Long term illness is not managed well by the Anon Force. [R25F S G12 RTW]

A further described:

I found the thought of going back after so long really difficult. I think it was the whole idea of just getting back to it and adjusting to colleagues and wondering how they will welcome you. I had no communication about the changes in staff, policies, procedures and just the news really about work and the changes that had occurred since I had been off so the thought of RTW was really daunting. There was no attempt to help me feel genuinely included and up to date. [R62 F S G13 RTW]

The longer respondents were off the more opportunities there were for barriers to develop. Respondents felt increasingly remote and no longer part of the Anon Force and this became an enormous barrier for some. There was also a sense of being left behind in work relationships and knowledge, which culminated in doubt about how they would re integrate.

**Self Doubt and Loss of Confidence about RTW**

Self doubt and loss of confidence about RTW emerged as a barrier to RTW for just over one third of the respondents interviewed, making it the third most saturated category in the individual domain. In describing their thoughts about RTW these respondents expressed strong feelings of self doubt and lack of confidence and there was an overwhelming tendency for them to talk about these feelings within the context of one or more of three recurring negative thought patterns: uncertainty about still being able to do the job; apprehension about what colleagues are thinking; and to a lesser extent, apprehension about having a relapse after RTW. In respect of the first and most prevailing negative thought pattern, respondents described feeling **vulnerable and uncertain** about RTW because of a lack of confidence that they could still do their job. One respondent said:

In my own mind I was worried about RTW and not being able to function one hundred per cent and being nervous that I would make a mistake. This is a barrier because you are nervous of getting into trouble from mistakes. This stuck in my head and I lost confidence and the idea of going back became frightening. It's like a bridge, you are on one side and the job is on the other and you get half way across the bridge and then you think 'I should go back now' and then you get frightened that if you go back you will need to go off again so you stay off. [R12 S G12 RTW]

Another respondent said:

It was very scary thinking about coming back to work. I distinctly remember thinking 'can I do this, am I still good enough?'. The apprehension for me about how I would get on was a big barrier. [R37 M O PC RTW]
Another respondent commented:

The number one problem is your self confidence, it vanishes. I found myself worrying and thinking 'can I do the job?', 'what if peoples’ expectations of me are too high?', 'I might not be able to do what I used to be able to do and then what will happen?'. I worried about all that and thinking about going back made it go round and round and I think it was made worse because of the lack of contact from the job. You feel so alone. [R9 F O DC NRTW]

In respect of the second negative thought pattern, respondents described doubting themselves and losing confidence because they felt apprehensive about what colleagues might be thinking with respect to their illness/injury and time off. As one respondent described:

If you have been off a long time it's difficult going back to the work environment. You anticipate the worst; you think about facing people and worry about what they might be thinking. You worry about convincing people that you are ok and are up to the job. And yet there is no basis in the fear as colleagues are so supportive. [R45 M O DC RTW]

Another commented:

I worried a lot about going back, especially about what people were thinking. I was feeling that people would think I was doing recuperative duties because it's easier, but I was going back on them because I wasn't able to do my normal job yet. This made it difficult to come back because I started to doubt myself and whether it was worth it because you do not want to be written off this way. [R21 F O PC RTW]

And:

The biggest barriers are your own thoughts about how others will react to you. It creates anxiety being off especially if you know your immediate line manager is not supportive. You think 'What will happen when I go back to work? Will my job still be there? How will everybody be to me? What will they think? You worry that people think you have been pulling a fast one. [R62 F S G13 RTW]

With the third and least populated negative thought pattern, respondents described feeling apprehensive about a possible relapse when they RTW and this manifested itself in self doubt and a loss of confidence.

As one respondent described:

Being off has taken its toll and there are my own thoughts in this. I have felt an outcast and you worry that if you went back you would be given some xxxxx little meaningless job and I couldn't bare that and you worry that you might get sick again and then have to go off again and so it goes on and you feel pretty low and unsure, and that's all on your own. [R56 M O PC NRTW]

Another respondent stated:

I was scared when I thought about RTW because I thought I might relapse and so I was really nervous and just waited. Again, there was no contact beforehand to reassure me ahead of RTW that I could go at my own
pace. That only happened when I eventually RTW. [R19 M S G10 RTW]

The debilitating effects of repetitive negative thought patterns were evident in this barrier. Respondents experienced loss of confidence and self doubt about RTW which was underpinned by limiting thought patterns around whether they could still do the job, what other respondents were thinking about them, and for a few respondents, concern over having a relapse. These thought patterns were more apparent in the chronic and Not RTW groups although one third of respondents in the relatively early RTW group were hampered by this barrier.

**The Injury/Illness**

One theme emerged in relation to the illness/injury as a barrier to RTW: the time it took for the injury/illness to heal and the residual disability. Half of the respondents perceived their illness/injury and any residual disability acted as a barrier to RTW. For some, the injury/illness, largely musculoskeletal, acted as their principle barrier to RTW and once healed most returned without incident; for others, more so but not exclusively those with a MIH diagnosis, their illness seemed almost all consuming, with many describing how they stopped functioning in just about every aspect of their lives and of these, some, with the help of external reinforcements including a helpful GP and threat of half pay eventually RTW, while others remained absent; for others, theirs was a terminal illness and a permanent barrier to RTW; and for still others, the injury/illness was a barrier in the earlier stages of their LTSA experience and when it ceased to be a barrier, respondents remained off work due to other barriers. One respondent commented:

I went to my GP and was signed off with stress and depression. I remained off for 5 months. During that time I was a complete and utter mess. I couldn't remember things, I couldn't do anything, it was all just very black... I didn't care about work at all but my pay was going to be halved so I had to go back. [R37 M O PC RTW]

Another commented:

For me the barrier to RTW was really just the physical injury. I was back at work four days after the cast was removed. [R7 F O DS RTW]

Another respondent stated:

The only thing that stopped me RTW was my physical injuries and just the time it took to heal my fractured spine. I was back straight after that. [R50 M O DI RTW]
A further respondent described

The initial biggest barrier was the actual injury. As that started to heal it was also the distance I lived from work, it was impossible to travel 30 miles to work. Then as I got to a point physically where I could have RTW I got into the frame of mind where all I could see was the lack of support from work I had had and that fostered the 'bad back' syndrome and then I got depressed. [R58 M O PC RTW]

Illness/injury was most apparent as a barrier for those in the sub acute group. The majority of these respondents tended to be very pragmatic about their illness/injury and once well, RTW. For those with MiH, some with help eventually RTW within the chronic phase. Others, like those who did not RTW with the physical healing of their ailment indicated quite candidly how the passing of the primary illness/injury was replaced with other secondary barriers typically in response to the lack of care and support they had received from the Anon Force. The exception to this was those with terminal illnesses and they remained determined and positive in their efforts to 'beat' their disease and return to work.

9.3.3.2 Enablers to Returning to Work

Categories that emerged as enablers to returning to work, that is, any factor that is perceived to help rather than hinder the RTW process, were similar to barriers, but the underlying themes were very different from the themes of barriers. Categories were: 1. medical management within NHS; 2. contact, concern and support from line management; 3. standard of occupational health services; 4. recuperative duties; 5. standard of the Federation services; 6. threat of half pay; 7. characteristics of the respondent; 8. RTW goal of the respondent; and 9. family and friends/colleagues.

SOCIETAL DOMAIN ENABLERS

Medical Management within the NHS

Medical management was the only societal domain enabler to RTW to emerge. A core theme of a supportive GP who actively worked towards a RTW goal with the respondent was described by seven (11 per cent) respondents as they spoke of their LTSA experiences and efforts to RTW. As one respondent described:

My GP was very supportive and wrote me a letter stating my readiness to RTW and outlined what I could and could not do. This made it easier for me to get back because I had been having trouble contacting Occ. Health for help. [R39 M O PC RTW]

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Another respondent described:
My GP really helped the whole process of focusing me on RTW. She was brilliant and supportive and got me private independent counselling which also felt far more genuine. She started with ‘let’s see what’s wrong with you and see if we can fix it’. [R26 M O Insp RTW]

A further commented:
I am sure I wouldn’t have progressed the way I have if it had not been for my GP. He was very supportive with a letter to the Anon Force which then progressed everything, including a request for Goring and outlining the kinds of things I would not be able to do when I first went back. [R58 M O PC RTW]

A positive relationship between the respondent and their GP was the defining feature of this enabler to RTW. Respondents’ descriptions of the help and support provided by GP’s was very much in the role of mediator and in some instances seemed to satisfy the respondent’s need for care and support that was not satisfied by the Anon Force.

ORGANISATIONAL DOMAIN ENABLERS

Contact, Concern and Support from Line Management
For the category contact, concern and support from line management, two themes emerged as aspects of this enabler to RTW. Theme one focused on the regular and supportive contact respondents received and the positive impact this had on their well being. One third of respondents described this. As one described:
My manager was great and it felt like I was in a close family being in the [name of division] group but I feel if I had just been on the beat I would have been a lot worse off. All sickness policies regarding visits, calls and offers of help etc were exceeded and it all helped me feel very cared for and I think that made it a lot easier to RTW. I was also kept very well informed about what was going on at work and that also really helped. [R37 M O PC RTW]

Another respondent commented:
My DCI was superb. She emailed the entire unit and asked them to support me and I received calls of support, offers of help for shopping and child care, and it was sustained throughout. My DI did weekly home visits, offering support, and even did the odd chore for me. They were all brilliant. I never felt alone, not once. [R7 F O DS RTW]

And another:
When I was off my Inspector called a few times. My Sergeant called and also came for visits and I appreciated this as I felt they cared enough to visit. I enjoyed the contact, whether by phone or in person as it made me feel cared for and that I was still a part of it all. I would hear about all the things going on in the team and some of the changes. [R16 F S G12 RTW]
The second theme concerned the **committed and caring approach that line management** demonstrated towards respondents as they endeavoured to assist them RTW. This translated into line management either personally or organising others to contribute very tangible assistance to aid respondents RTW. As one respondent described:

> I had great support from my colleagues and this was vital. My Inspector was very helpful, he did all the paperwork for me. My colleagues and Sergeant all visited. My Sergeant kept my spirits up by keeping me informed of how all the dog jobs were going. They also let me keep my dog and didn’t send it to the kennels which was my lifeline and a dog handler came everyday to walk it until I could manage. The help and support I got was so valuable in terms of keeping my spirits up until I was able to get back to work. [R2 F O PC RTW]

A further said:

> My Chief Inspector was great. He really cared, and he gave me a sense of belonging. He told me he would really try to help me and he did. He arranged for me to go to Goring, he asked people to stop by and see me and he contacted Occ. Health and told them to start offering some assistance to me so that I could RTW. I now work in stores and I can manage this and I don’t feel frightened by it. [R36 M O DC RTW]

And another stated:

> My Governor and Sergeant made sure I was ok all the way along and there have been some lows. They visited me at home which helped a lot, even just knowing you are still thought of and that somebody cares. They also included me in some training and organised for me to be collected and taken to the course. This was a bit time consuming as I had to be reinstated and then taken off again and the protocol is very cumbersome but it meant I was not missing out and I got to see everyone. Then when I got a bit low again they offered me some work to do which I was able to do at home and it really helped – it gave me a real sense of purpose again. It was a challenge. [R35 M O PC RTW]

The LTSA experience of these respondents was significantly positively influenced by this enabler to RTW. Care, genuine concern and support, both emotionally and practically, from management produced an outpouring of appreciation from these respondents. The effect of these simple acts as an enabler to RTW was absolute, with respondents describing a range of positives, from having a sense of belonging to acting as a lifeline.

*Standard of Occupational Health Services*

The standard of occupational health services within the MPS emerged as a category towards which one fifth of respondents contributed. Two themes were identified as aspects of this enabler to RTW: a caring and helpful approach to respondents; and professional services and practical RTW assistance. Theme one related to the positive contact experience respondents had had with the Occupational Health Unit,
especially the helpful and caring manner that staff used towards them. As one respondent described:

They were absolutely marvellous. They really seemed to care for me. They were kind and courteous, they contacted me from time to time to see if there was anything I needed and then they asked if I wanted reduced hours when I was able to RTW. They made me feel a part of the Anon Force. [R25 F S G12 RTW]

Another respondent said:

My line manager contacted Occ. Health and they phoned me and told me that they were there if I wanted anything. They offered an ear if I wanted one. They were very supportive. They regularly rang me and then when I was ready to RTW they arranged reduced hours for the first few weeks and they came to see me so I didn't have to go there. [R11 F S Ind RTW]

The second theme concerned the professional services and practical RTW assistance that was made available to respondents through the Occupational Health Unit. The services were seen as significant contributors to successful RTW outcomes. As one respondent described:

When I broke down my boss rang Occ. Health and they said to send me straight over so I was sent straight over there and I saw someone immediately. This was the day I cracked. After that I was seeing the counsellor regularly. It helped enormously because to begin with I was a complete and utter mess and I couldn't stop crying and shaking. But over time they really helped me. I understand what happened to me, they spent a lot of time explaining things. They also rang me sometimes. And they also helped me get my new job when we thought I could try to come back. It was agreed that I should come back slowly to start with and it's good because I can manage this. [R37 M O PC RTW]

Another commented:

Occ health arranged the recuperative duties and without them I think I would still be off. My management had done nothing. So Occ. Health rang my Inspector and gave him hell for the way they had treated me and for the first time in a long time I felt supported. As part of my going back, it was agreed that I couldn't physically manage a big dog so I was given the opportunity to take a puppy rather than a big dog and graduated my return to dog handling that way. Management never welcomed me back, in fact my sergeant ignored me for six months! But I couldn't fault the help I got Occ Health. [R38 M O PC RTW]

Support and practical assistance particularly with respect to organising recuperative duties were the principle elements of this barrier. Again, the positive effect of these simple acts was very apparent from respondent stories.

Recuperative Duties

One theme emerged in relation to the category Recuperative Duties as an enabler to RTW: their availability and suitability to respondents. There was a strong sense
among one fifth of respondents that the availability of suitable recuperative duties was very helpful for accelerating a RTW and something that was very appreciated among respondents. As one respondent described:

My being able to come back on recuperative duties the way I did was so helpful in terms of being able to RTW. My line manager reassured me and said that we could take it one day at a time and so I worked with my line manager and we worked out day by day what was right for me. This was far more helpful than Occ Health who simply gave me one month reduced hours but no individual care. [R62 F S G13 RTW]

Another respondent commented:

The Anon Force has been great. They eased me back in by organising a RTW on recuperative duties and they allowed time for me to have regular meetings with Occ Health about my progress. [R4 F O DS RTW]

And:

Without the opportunity to do this job I don’t think I would be here today. The Anon Force has provided me with an environment that allows me to do this job and with reduced hours and I can continue with it and build up for a year. With my stability gone I was worried about what would happen because I don’t feel ready for the pressure of my old job but they have provided me with this. They have been so supportive. [R36 M O DC RTW]

Having access to a range of recuperative duties that included flexibility in duties, hours and both was seen by these respondents as a significant aid to facilitating their RTW.

Standard of Federation Services

The category, standard of Federation services, emerged as an enabler to RTW with a single theme: a helpful and supportive approach towards respondents. One sixth of respondents spoke of the support and assistance provided by the Federation and the positive impact this had both in terms of their well being and being able to RTW. As one respondent described:

My rep was very good. He pushed for the Occ Health appointment, as I was having no luck, and the CMO appointment. He also came to visit me in hospital after I was sectioned for my suicide attempt, nobody else did. [R39 M O PC RTW]

A further respondent commented:

I got a lot of my support from the Federation. They were great in that I got plenty of calls, they organised legal help for me and showed genuine interest in me. [R26 M O Ins R T W]

Another offered:

As for the Federation, they were really helpful. They suggested the convalescence home Goring and they
even visited me there. They kept in regular touch and when I had a problem with my pay they helped me. They also supported my appeal for promotion. [R42 M O PC RTW]

This enabler to RTW tapped into the supportive and practical domains that other enablers did, with similar effect. In this instance the practical help tended to be as a mediator, helping arrange appointments with other stakeholders such as; occupational health which included suggesting visits to the Anon Force rehabilitation centres, typically after the respondent had been unsuccessful in achieving the same; and arranging legal and financial advice. They also visited respondents simply to offer support.

**Threat of Half Pay**

Threat of half pay emerged as an enabler to RTW for six respondents (ten per cent). A single theme was apparent: receiving advice of an imminent cut in pay motivated respondents to RTW. As one respondent described:

I had the letter about half pay and it was scary. It did act to stimulate a RTW. It spurred me on. It served as a reality kick to get going and I RTW as a result. [R5 F O PC RTW]

Another suggested:

Getting the letter threatening half pay forced me to RTW in a perverse kind of way. With the threat of a six months pay cut, it brings you back to the reality of your situation. [R40 M O PC RTW]

For this small group of respondents, threat of half pay served to propel them back to work. All respondents acknowledged that they had been physically capable of RTW for some time however, for reasons of apathy this had not happened.

**INDIVIDUAL DOMAIN ENABLERS**

**Characteristics of the Respondent**

One theme emerged in relation to the characteristics of the respondent and how they interacted with their LTSA experience to act as an enabler to RTW: fifty three per cent of all respondents, comprising 62% of those who returned to work, and three who were terminally ill and had not RTW (23% of that sub group), demonstrated a tenacious, self motivated, proactive approach to RTW. In some cases respondents spoke of their determination to RTW amid the wonderful assistance they had received from the Anon Force while in many other cases, respondents recounted their
experiences of LTSA and spoke of their determination to RTW despite what had happened rather than because of some positive experience. One respondent said:

I love my job and I didn’t want to be off. But being off work coincided with summer and I had been working very hard on custody duty and suddenly I’m thinking, well this isn’t so bad, its sunny, I’m not fit and for the past ten years I’ve given 150% so why should I rush back when I’m not 100 per cent. But then I always feel guilty when I’m off work. There are 2 types of people, those who want to extend the injury and time off and those who are just keen to get back. I am one of the latter but this was seriously challenged by the Anon Force’s treatment of me……Nobody bothered to ring to see how I was or see if I needed some help. ‘This is what makes you start to take on the mindset ‘if they don’t care and they are not doing anything to help me, why should I rush back to work.’ I guess I expected some personal support and I got nothing. If our people are our most important asset why aren’t we more than a number? It seems now it’s lip service to care for the individual and if you aren’t up for helping yourself then you’re in trouble. I was ok, but what about others? [R59 M O PS RTW]

Another respondent stated:

The biggest obstacle to RTW was not to be beaten because so many things were put in my path, like an unhelpful manager and being told I had to go back to my Operational job. So I said to myself ‘I know I can do it and I’m not going to give up’. So I turned the anger to a positive. I pressed for a meeting with the Federation, my Inspector and Personnel and told them that [location of unit] was perfect as it is a small supportive unit and I really want to get back. I did it. I am back, but I had to fight to come back! [R39 M O PC RTW]

A further respondent said:

Right after the accident, when I was first off, after one week I took it steady, after two weeks I started to feel better, by week four I was starting to feel bored and frustrated and alone. As this set in I can remember being really aware of having to draw on my strong inner reserve. The mental approach of waiting to RTW on a level of fitness, when there is a lack of clear targets and no one is there marking you or helping you requires a huge effort. For example, I asked my doctor NOT to sign me off for 3/12 and this is from someone who hadn’t seen me and the appointment lasted 10 minutes. I organised my own treatments, physiotherapy, and acupuncture and remained determined that I would get back. [R60 M O PC RTW]

Another said:

I’m not a serial sicki, I look for reasons to be at work not reasons to be off work. It’s personal pride, I have a strong work ethic. But I could have easily slipped into that pattern of not RTW because of the abysmal treatment I received. But I couldn’t in the end because of my personal pride and just wanting to get back. And so the utter lack of care and concern tested me temporarily and so easily could push you the other way. [R46 M O PC RTW]

And:

While I was off it got horrible and it was difficult to stay positive and think about returning to work. I didn’t manage it for a while, I think because I had just wanted some support, just to know someone cared back there and I didn’t get that. But I tried to be positive and I tried to do something little everyday; a bit in the garden, cook a meal, something to accomplish everyday. I also gave up drinking and went to the gym. I faced my
demons and drew on my determination to not lose it all. And I am now thoroughly enjoying my [job title] again. [R30 M O PC RTW]

For the most part respondents who demonstrated this determined and tenacious character did so in spite of their LTSA experience. These respondents had stories to tell that detailed the lack of care and attention they received from the Anon Force, yet each determined at some point to consciously engage with the RTW process and get themselves back to work.

**RTW Goal of the Respondent**

One theme was identified from this category as an enabler to RTW: respondents’ RTW goals during their LTSA experiences were clear and focused on RTW at the Anon Force. This was the case for fifty three per cent of all respondents, and included the terminally ill. As one respondent described:

I would love to go back to work for the Anon Force police. I have given 23 years service. I have been very happy working for the Anon Force. I worked hard and I looked forward to each working day. That is now my goal, to regain this. [R41 M O DC NRTW]

Another respondent stated:

My objective now is to try and RTW as soon as possible. I am doing everything I can, not least because the whole experience has been quite isolating. I love my work and I am determined to get back. [R9 F O DC NRTW]

And:

I came back with one thing in mind, to be the very best man and dog relationship possible. To be the best dog handler there is was something I thought about a lot and that is what I am aiming for now. [R38 M O PC RTW]

A further respondent commented:

While I was off I thought about work and what I would do because I knew my injury had set me back career wise. It’s going to take longer to get to my career goal and physically I am limited now as a result of the accident. But I was clear I wanted to keep trying and so I applied for and have now been accepted for an Instructors post at the Crime Academy and Detective Training School. I have also now just had my promotion to DS as well. It has given me a new lease; it feels like I am starting a whole new job. [R40 M O PC RTW]

Another respondent suggested:

I am going to recuperate at work. The real question people have to ask themselves is ‘how committed to getting better are you?’ That’s key and for me it’s everything. I have hated being away from the job and I probably came back too soon but I enjoy working and I know some might be resentful of that but if you are
capable of walking you are capable of working. It's a pragmatic view but I have a clear sense of what it is I want from my career and I won't get it from home. And that doesn't mean I haven't felt resentful, I have but you have to push through that. [R48 M O PC RTW]

Having a clear target to RTW at the Anon Force was a significant enabler for these respondents. Each respondent's story described a keen desire to recapture their career and for many there was a real sense of being achievement oriented, whether that was through striving for promotion or being the best they could at their current job.

**Family and Friends/Colleagues**

One theme emerged from this category as an enabler to RTW: supportive and caring contact with a RTW focus. One fifth of respondents spoke of their experience of LTSA and described the supportive and caring contact they had with family and friends/colleagues and the beneficial effects this had in terms of RTW.

As one respondent described:

For me I consider myself lucky to have my wife because she never let me go. Even when I was low she was there reassuring me and talking to me about work. In the end she pushed me back to work even though I felt lost and out of place at the thought of it. [R49 M O PC RTW]

Another said:

My wife badgered me to RTW! [R29 M P PC RTW]

A further respondent commented:

My mates in the force were a big support. They came to visit, they would make the trip out to see me and take me to lunch to get me out of the house and tell me the gossip. They made a huge effort and it made such a difference when they came. And they had to drive 30 miles to see me. It really made a huge difference and so easy to go back. [R58 M O PC RTW]

And:

I didn't feel the disconnect from the Anon Force that I know some others have felt because of my friends, they were fantastic with their visits and calls, checking in on me. But it still feels like the force treats people very poorly, management were dreadful in my case. I am only now realising just how sick I was and I never thought I'd feel good again – but I have a saved marriage and a saved career thanks to my family and friends and hard work on my part. But, no thanks to management. [R38 M O PC RTW]

This enabler of support from family and friends/colleagues helped these respondents RTW in two important ways. For some the experience of support acted as a safety net by ensuring they did not experience the negative effects of feeling isolated,
unwanted and disconnected from the organisation. For others the support actively served to motivate them back to work, with partners in particular strongly encouraging this.

9.4 DISCUSSION

The aim of this second study was to elaborate in detail the LTSA experiences of the 62 police officers and police staff that were quantified in Chapter 8 in order to provide new information about: barriers and enablers to RTW from the perspective of the long term sick; the developmental course of these factors on the disability timeline; the personal meaning they ascribe to different aspects of their LTSA experience and the effect this can have on RTW outcome and absence duration; and the interplay between barriers within the different domains.

9.4.1 Summary of Results

In total, 16 barriers and 9 enablers emerged from the data and each was able to be located within one of three identifiable domains: of the barriers, one was located in the societal domain, eight in the organisational domain, and seven in the individual domain; of the enablers, one was located in the societal domain, five in the organisational domain, and three in the individual domain. Of the barriers, while most were described as developing independently, for some, a number were described as developing as an outcome of another barrier; so called secondary barriers (Loisel et al, 2005). No barriers were mutually exclusive within the different absence phase groups and only one enabler was, threat of half pay, and it acted to influence some respondents in the chronic absence phase group to RTW.

In terms of post morbid factors, the detailed content analyses of this study found RTW to be a complex process involving interplay between numerous barriers within the different domains. Very few respondents had an easy, trouble free period of LTSA and transition back to work after the illness/injury. Most respondents experienced difficulties as they navigated their way through the event and many of the barriers they encountered were common to all three absence phase groups. Specifically, the organisational domain barriers: a lack of professional services and practical RTW assistance / untimely offer of services from Occupational Health; lack of contact and support from line management; lack of commitment to and implementation of the
AMP; and impersonal communications and inadequate information from Personnel were prominent in all absence phases.

While most barriers were experienced by at least some respondents in each absence phase there was considerable variation in the prominence of different barriers within different phases, supporting previous findings that different factors emerge at different points on the disability time line (Burton et al., 2003). A summary of the core themes of barriers and enablers to RTW from LTSA from the perspective of the long term sick is constructed for each of the absence phases.

9.4.1.1 Barriers and Enablers x Absence Phase Groups | Disability Timeline

Sub Acute Group

Relative to the other two groups, respondents who were in the sub acute group, and therefore off less time, encountered fewer barriers to RTW and, with one exception, of those barriers that were prominent in this group, proportionately fewer respondents experienced them. Moreover, for the majority of barriers that emerged in this study, most proved to be prominent in the chronic and Not RTW groups and featured for only one to two respondents in this group. An exception to this was the barrier illness/injury. As the most populated barrier of this relatively early RTW group, three quarters of its respondents found that the particular injury/illness represented a specific barrier that needed to be overcome and for most, once successfully resolved, they returned without incident. Next, and equally significant as barriers, were the lack of professional services and practical RTW assistance / untimely offer of services from Occupational Health. Similarly, nearly half of this group perceived that management, through its lack of contact, concern and any tangible assistance, was a barrier. To a lesser extent, feelings of isolation and disconnect from the Anon Force as a result of the length of time away, together with a sense of uncertainty about still being able to do the job were also barriers to RTW.

In contrast, ninety per cent of this group expressed how they were enabled back to work through their own tenacious and proactive approach to RTW and by a clear RTW work goal that included RTW at the Anon Force. A third of this group also benefited from management’s supportive concern and tangible help in assisting them RTW. Help and assistance from Occupational Health also acted as an enabler to
RTW for one quarter of this group. For three respondents, a supportive GP with a RTW focus also acted as an enabler.

For respondents in the sub acute group, the whole experience of RTW from LTSA appeared to be more straightforward, less complicated, and less difficult than for the later groups. Many RTW once a specific barrier had been overcome: for example, the officer who RTW as soon as he had influenced management to change his shift patterns and provide a new posting; and the officer who RTW as soon as his fractured wrist had healed. Others, despite having experienced a number of the same barriers as those described by respondents in the later groups, including the organisational domain barriers 'lack of practical assistance from Occupational Health' and 'lack of contact and support from management', did not falter in their circumstances. Rather they RTW in an average of 54 days and the individual domain enablers 'tenacious, self motivated and proactive approach to RTW' and a 'clear RTW goal with the Anon Force' appear to have been critical determinants of this RTW outcome. Many organised their own RTW interview, some made contact with Personnel for assistance to RTW, and some requested their GP's to stop 'sick listing' them. This approach was overtly apparent in 90 per cent of this group as was a clear RTW goal. By comparison, these enablers featured for only 45 per cent of the chronic RTW group and 23 per cent of the Not RTW group.

**Chronic Group**

In contrast, the described experiences of respondents in the chronic, RTW in 91+ days group, tell of an arrival at the same end point in an average 233 days however, they arrived there via having taken very different decisions. For a few, their LTSA experiences were personally defined largely by organisational and individual domain enablers and these respondents RTW following a relatively straightforward rehabilitation period. For the others, there was a common theme running through their LTSA experiences that was personally defined primarily by organisational domain barriers that left them 'feeling uncared for by management', 'without practical assistance from Occupational Health', and 'insensitively and inadequately informed by Personnel' and by an individual domain barrier that left them feeling isolated and disconnected from the Anon Force.

As with the sub acute RTW group but more so, respondents in the chronic RTW group
found that management, through its lack of contact, concern and any tangible assistance to RTW, was a significant barrier, with 87 per cent expressing this sentiment. In addition, management's lack of commitment to and implementation of the AMP was also seen as a significant barrier by most of this group. Equally significant as barriers to RTW for this group were the lack of professional services and practical RTW assistance / untimely offer of services from Occupational Health and their unprofessional and uncaring approach. Moreover, two thirds of this group found lack of information and impersonal communications from Personnel was a barrier to RTW, a much higher rate than for the sub acute group. Finally, three quarters of this group found elapsed time off work and the concomitant feelings of isolation and disconnection from the Anon Force to be a barrier.

How respondents responded to this common set of barriers differed significantly. For nearly half of the respondents in the chronic absence phase group, there was a real sense that they determined to RTW in spite of their circumstances. Nearly half this sub group had experienced extremely serious illness/injury. With the influences of the individual domain enablers ‘a tenacious and proactive approach to RTW’ and ‘clear RTW goals’ on this common set of barriers, these respondents described a similar tenacity towards RTW that the respondents from the sub acute group did. Each barrier was seen as a hurdle to get over, not be beaten by, or something that simply was and in no way allowed to interfere with the RTW focus. For example, “I was completely abandoned. My boss stopped contacting me and it was entirely up to me on my own to push to come back”. These respondents appeared to draw on their own inner resources to provide the impetus to RTW. While many experienced the isolating effects of being off work for a protracted period of time, they determined to overcome such barriers with focused determination and remained engaged in the RTW process.

For the other half of the respondents in the chronic RTW group, they displayed a ‘wait and see’ approach to RTW that saw them disengage from the RTW process, thereby prolonging their LTSA. This pattern of behaviour was particularly evident in the stories of respondents who cited injury/illness as a barrier to RTW early on and yet once healed determined to remain off work in response to how they perceived they had been treated. Moreover, comments such as “with the way the Anon Force treated me, with nobody contacting me or offering any help I started to think ‘so why
should I contact them'; and "after a few ‘no shows’ of promised visits and calls I thought they can ‘xxxx xxx” illustrate the pattern. These respondents developed a negative cycle of disengagement in response to their perceived mismanagement. The cycle of disengagement was only reversed when respondents perceived a change in circumstances, an enabler. In most cases they were relatively pragmatic organisational or individual domain enablers including ‘threat of half pay’, ‘Federation assistance’, or ‘a partner telling them to RTW’; in other cases ‘a change in management’ or management’s approach helped.

In addition to the common set of barriers, a number of other barriers emerged, each affecting roughly a third of the chronic RTW group. Within the societal domain, wait times for diagnostics and treatments was implicated. Respondents described waiting for months to receive NHS assistance, having been in many cases refused the Anon Force Spend to Save funding. Within the organisational domain, barriers were: being denied diagnostics or treatments on the Spend to Save scheme or simply having their requests for second opinions or alternative treatments denied by Occupational Health; being offered ‘recuperative duties that they perceived to be unchallenging and devaluing’ and the prospect of having to ‘return to unfamiliar work and people’; and the mismanagement of RTW and case conference meetings. Within the individual domain, barriers were: illness/injury; vague RTW goals and in a few cases excluded a RTW at the Anon Force; a sense of uncertainty about still being able to do the job; and the change in daily routine from one of attending work, to one of not attending work, i.e. accommodating the ‘off work’ routine. The new, typically unhelpful routine was described as one that ‘seduced you’ and that relatively quickly you ‘get used to not going to work’. Each of these was perceived to be a barrier to RTW and each potentially contributed to maintaining disengagement.

Two further barriers emerged for the chronic RTW group. First was a prior long standing history of MIH which affected four respondents. Second was the internal investigation process. Eight respondents in this group described in detail how they spent the best part of a year frustrated, waiting for contact, information or any form of help from the Anon Force.

In terms of enablers for respondents in the chronic RTW group, one third were facilitated back to work through management’s supportive concern and tangible help in assisting them RTW. Equally, a similar number of respondents demonstrated,
albeit at times belatedly, a tenacious and proactive approach to RTW and a clear work goal that included RTW and to the Anon Force. Help and assistance from Occupational Health also acted as an enabler to RTW for one quarter of this group. Additional enablers for a sixth of these respondents were: assistance from the Federation, typically in the form of displays of fellow concern and offers of practical help such as legal and financial aid, and; the threat of half pay, which served to impel some into action to RTW. For four respondents, a supportive GP with a RTW focus also acted as an enabler for their RTW.

**Not RTW Group**

For respondents in the Not RTW group, their approach to RTW and RTW goals were again very evident in their influence, either as enablers or barriers, on RTW outcomes. There were two distinct groups within the Not RTW group. One group comprised the terminally ill and they made up nearly one quarter of the Not RTW group. Positive in their RTW attitude and determined in their RTW goals, their failure to RTW was entirely medical, being physically unable or disallowed to RTW. Their described experiences of LTSA were personally defined by barriers that they were going to beat and enablers that helped them stay determined to RTW, and in this sense this group remained very much engaged in the RTW process even though the likelihood of a RTW was negligible. In contrast, the other group comprised respondents who failed to RTW largely because they had disengaged from the RTW process and had failed to re engage with it. With the influences of the organisational domain barriers: a lack of professional services and practical RTW assistance / untimely offer of services from Occupational Health; lack of contact and support from line management; and impersonal communications and inadequate information from Personnel; and the influences of the individual domain barriers: a ‘wait and see’ passive approach to RTW; vague RTW goals or goals that excluded a RTW at the Anon Force; a primary diagnosis of MIH for seven respondents and for five of those, a prior longstanding history of mental ill health; and elapsed time away from work and the concomitant feelings of isolation and disconnection from the workplace together with a sense of uncertainty about still being able to do the job, these respondents personally defined their circumstances almost exclusively by what other stakeholders had failed to do for them, including some outside the Anon Force. All felt they had been poorly treated by the Anon Force, and a number felt it was too late to try and rectify the situation. For these respondents, the whole experience of LTSA including any attempts to RTW was
burdensome and difficult relative to the other two groups.

One barrier that featured more prominently in this group relative to the other groups was the mechanistic culture. A third of respondents in this group perceived that once you were absent from the machine-like organisation there was an absolute disconnect from the workings of that machine which then created a significant barrier to RTW.

Few enablers emerged for the Not RTW group and those that did were primarily related to the positive and determined attitudes of the terminally ill and their RTW efforts. The three each spoke of the positive gains they had achieved as a result of their management's supportive concern and offers of help in assisting them RTW if their illness permitted. These three also expressed incredibly positive and determined hopes of RTW at some point. For the two other respondents that spoke of enablers, assistance from the Federation in the form of concern and offers of practical help by way of legal and financial aid; and support from family / friends were cited. This group remained off work for an average 852 days.

9.4.2 Implications of Results

The results of the thematic analyses of the qualitative data elaborated the relevance of a total of 16 barriers and 9 enablers, each of which was able to be located within one of three identifiable domains: of the barriers, one was located in the societal domain, eight in the organisational domain, and seven in the individual domain; and of the enablers, one was located in the societal domain, five in the organisational domain, and three in the individual domain. There was considerable variation in the prominence of different barriers within the three absence phases, i.e. along the disability timeline, with most variability occurring between the sub acute phase on the one hand and the chronic and Not RTW phases on the other. This supports previous findings that indicate factors have varying developmental courses and as such their effects emerge at different points on the disability time line (Burton et al, 2003).

The results from Study Two confirm that societal, organisational and individual domains, populated with factors that influence the course of LTSA and RTW outcomes, do appear in people's stories and they do inter relate. Moreover, some barriers developed subsequent to another barrier, emerging as secondary barriers. For example, for those denied access to medical diagnostics and treatments on the
Spend to Save Scheme some went on to experience the societal domain barrier 'wait times for diagnostics and treatments' on the NHS. In addition, the personal meaning that people ascribed to different events in their LTSA experiences were shown to influence the course of their work disability and RTW outcome. In some cases this was evidenced by the emergence of secondary barriers such as self doubt and a disengaged 'wait and see' passive approach to RTW. The results reported here, in particular the factors within the different domains, the personal meaning people ascribe to them, the interplay between barriers and the emergence of secondary barriers, together with the results from Chapters 7 and 8 will now be discussed in Chapter 10.
10.0 CHAPTER 10 DISCUSSION

10.1 INTRODUCTION

This thesis proposed that work disability and RTW outcome are a developmental phenomenon, best viewed from the perspective of the long term sick. It was argued that in order to change RTW behaviour of the work disabled there needed to be understanding of their perspective of the work disability experience, what they think and believe and how this influences RTW outcome and absence duration. Drawing on a systemic paradigm, a conceptual framework which reflects the perspective of the long term sick was developed. It was proposed that through this lens, the work disability experience or LTSA can be conceptualised as three identifiable co existing domains; individual, organisational and societal, each populated with factors perceived by the long term sick to be associated with the work disability experience and their effects, manifested in sickness absence duration and RTW outcome; thereby supporting the need for a wholistic and integrated approach to RTW interventions. It is through the perceptual lens of the long term sick that it was proposed to explain the processes involved in work disability and RTW. In particular, there was interest in identifying the roles that interpersonal relationships and the communication within those, i.e. communicating relationships, occupational bonding, motivation to RTW, and cognitive appraisal may play in work disability and RTW.

To investigate this, this thesis identified barriers and enablers to RTW from LTSA among a Policing population. A mixed research methodology was used in order to capture the very different types of information that are derived from the quantitative and qualitative research methods. The comparative quantifications from Study One were detailed by the stories that came from Study Two which elaborated and identified additional barriers and enablers from the perspective of the long term sick. The results of this thesis provide an understanding of the complexity of being long term work disabled from their perspective. They provide significant insight into the factors that populate each the three identified domains, the interplay between domain factors and the emergence of secondary barriers. The results also provide knowledge about key RTW processes, suggesting how respondents perceived and responded to events as they progressed along the disability timeline, finding or not finding a way back to work.
10.2 IMPLICATIONS OF RESULTS

Six of the research objectives are now discussed in the context of the collective findings of Studies One and Two and their significance to work disability and RTW from LTSA.

1. To clarify terminology, design and analysis with respect to long term sickness absence and return to work research.

This thesis adopted the working definition for an episode of LTSA as all certified sickness absence episodes lasting 20 or more consecutive working days, in other words 28 or more consecutive calendar days (after Knutsson and Goine, 1998). Duration of an episode of LTSA was defined cumulatively as the unbroken duration of all calendar days lost from work beginning with the date of injury (after Krause, Dasinger, Deegan, Brand and Rudolph, 1999). RTW outcome was defined categorically as: successful RTW, which referred to RTW with the pre injury employer but not necessarily in the pre injury job, within the relevant study time period, and; no RTW in any capacity within the relevant study time period. Absence phase specificity was defined by disability timeline cut points of: sub acute phase (continuous work disability/absence of 28 to 90 days), and chronic phase (continuous work disability/absence of 91+ days) (after Krause and Ragland, 1994).

The current findings provide support for the importance of using outcome measures of duration and absence phase specificity in addition to RTW outcome with clear evidence that factors developed at different rates and as such their effects emerged at different points on the disability timeline (Burton et al, 2003; Krause et al, 2001a; Dasinger et al, 2000). In Study Two for example, the significance of staff type was not apparent from the outcome measures of RTW outcome or duration of absence. However, the phase specific analyses revealed a pattern of RTW that saw significantly fewer police officers RTW in the sub acute phase compared to police staff and significantly fewer police staff RTW in the chronic phase compared to police officers. This allowed for a significant difference to be investigated further and revealed a significantly different illness/injury profile for the two staff type. Similarly, the use of absence phase specificity also revealed considerable variation in the prominence of different barriers within the three absence phases. Failure to stratify analyses according to phase specificity can clearly lead to the masking of important
risk factors (Oleinick et al, 1996). The very specific knowledge derived from absence phase analysis about factors can then be used to inform on the optimal timing of interventions for different risk factors to avoid disappointing results (Sinclair et al, 1997). Based on this study’s findings, those in police officer posts with a musculoskeletal diagnosis for example, would likely require early, additional remedial resources and interventions targeted at their circumstances relative to those in police staff posts. Yet in the present study, 28 per cent of police officers were denied access to the Spend to Save Scheme which resulted in them being off substantially longer.

A further definitional clarification of this thesis related to diagnostic criteria, with this thesis adopting diagnostic categories provided by the International Classification of Diseases-8 system (ICD-8, World Health Organisation, 1992-94). Despite these criteria previously showing greater diagnostic sensitivity and specificity than the alternative ANSI codes, findings from this research showed some definitional inadequacies (ANSI, R1969; Oleinick, Gluck and Guire, 1996b). Within Study Two, in accordance with the ICD criteria, both staff type with musculoskeletal diagnoses were classified into this diagnostic category. However, with the above noted differences in absence phase RTW rates between the two groups, more detailed analysis of the qualitative data was undertaken and revealed significant musculoskeletal diagnostic disparities between the officers and staff. The lack of sensitivity of the ICD categories to detect such disparities suggests that in addition to using the major ICD categories there is a need to measure illness/injury at the lower definitional level of ICD categories if the true effects of this barrier are to be observed (WHO, 1992-94).

3. To establish the rates of long term sickness absence within a police workforce for police officers (operational) and police staff (civilian)

The structure of the Anon Force, with its two distinct working populations, police officers and police staff, within the same working environment allowed for unique comparisons to be made between and within these diverse occupational groups. One significant finding of this thesis was that both staff type had very similar LTSA patterns. In terms of incidence, the rates of LTSA among police officers and police staff were extremely similar. Police Staff in their support roles were found to have statistically equivalent rates of LTSA compared to Police Officers. The equivalent rates of LTSA for these two staff types is an important finding because it challenges
the argument that job roles involving hazardous work such as policing are more likely to experience higher levels of ill health than those which do not (Lobel and Dunkel-Schetter, 1990; Alkus and Padesky, 1983).

There were two significant differences between the staff type relating to incidence. Firstly, within Study One police staff were found to have a significantly higher rate of MIH compared to police officers. This finding suggests that at the occupation level, being a police officer is not a significant risk factor for work disabling stress related illness relative to police staff. This calls into question previous research that has classified policing as one of the most stressful occupations in the world and as a consequence, police are more likely than others to experience stress related ill health (Brown, 2000; Dantzer, 1987; Lobel and Dunkel-Schetter, 1990; Alkus and Padesky, 1983; Cooper and Grimley, 1983). That the relatively more office based police staff group had a significantly higher rate of MIH is seen as supportive of the growing number of studies that have found it is organisational (administration, communication, supervision and morale) rather than operational (specific job tasks related to the core job) aspects of work that are the primary source of ill health, including psychological distress and illness, among the work disabled (Feuerstein, Huang, Haufler, and Miller, 2000; Brown and Campbell, 1990; Band and Manuale, 1987; Hadler, Carey and Garrett, 1995; Hart et al, 1995).

Secondly, police officers were found to have a significantly higher rate of musculoskeletal diagnoses compared to police staff. Within Study One their rate of musculoskeletal diagnoses was double that for police staff. While the research findings in this domain are mixed the current finding supports earlier research that has shown associations between work that is relatively physically demanding and work disability (typically involving a primary musculoskeletal diagnosis) (Carmona, Faucett, Blanc and Yelin, 1998; Hagen et al, 2006). Collectively these findings suggest that police officers have a higher risk of sustaining musculoskeletal injury compared to police staff but are no less likely to RTW than police staff.

These findings relate to incidence rather than barriers to RTW. However they are important because of the close association with LTSA barriers and potential relevance to future health and safety policy.
4. To discover demographic and occupational characteristics associated with LTSA and

5. To discern patterns of LTSA in the workforce as a whole (quantitative analysis)

Comparative analysis of the two distinct staff type, police officers and police staff, revealed a further major finding of this research, both staff type had very similar RTW rates. For both of these broad occupational groupings, the vast majority of respondents on LTSA returned to work; both had equivalent RTW rates and equivalent RTW timeframes; and both had the same overall illness/injury profile with Musculoskeletal dominating as a diagnosis and MIH dominating in terms of lost time. Moreover, for the relative few in both occupational groupings who did not RTW, they accounted for a gross disproportion of the CDL. This pattern of LTSA is consistent with UK Government census trends and underscores the growing problem of MIH as the primary source of prolonged work disability in the UK (HSE, 2003/5).

The equivalence of the LTSA patterns for police staff and police officers is an important finding because it adds to a scarce and conflicting literature on the relationship between occupation and RTW from LTSA. The current finding suggests that policing per se, which has been previously described as being extremely demanding both physically and psychologically, is not a barrier to RTW from LTSA relative to the predominately office based administrative occupations within the police staff (Dantzer, 1987). This is supportive of Gluck and Oleinick's (1998) study which found that policing was no more likely to be associated with prolonged work disability than a white collar sales reference group.

Job role

While at the occupational level, staff type was shown not to be a barrier to RTW; at the job role level the quantitative findings presented a different picture. Regarding police staff, the finding that being in a physical, industrial job role and male was a barrier to RTW relative to being in a sedentary office job role is supportive of earlier research that has shown associations between physical work and prolonged work disability (typically involving a primary musculoskeletal diagnosis) (Hazard et al, 1996; Butterfield et al, 1998; Dasinger et al, 2000); especially when the work is in custodial and food service/catering sectors (Voaklander et al, 1995); and when the work is repetitive or inflexible (Krause et al, 1997). In the physical (Industrials) category, staff
jobs were largely heavy and physical including machinists, cooks, kitchen hands, porters, fitters, store men, and garage hands and within those, the heaviest job roles such as porters, kitchen hands and garage hands were populated by males. The principle diagnosis amongst this subgroup was musculoskeletal.

In the case of the officer population, the sedentary CID rather than the physical uniformed officer role was found to be a significant barrier to RTW (in both absence duration and RTW rates). Similar findings were reported by Gluck and Oleinick (1998) who found that the physical demands of a job did not act as a barrier to RTW from LTSA. Paradoxically, they found that of eleven job roles deemed to be highly physical, ten RTW in a significantly shorter time period relative to the white collar reference group of sales (the eleventh was equivalent).

In the present research, police officers in the more office based CID roles had: a disproportionately high frequency of MIH; significantly lower RTW rates; and significantly longer MIH LTSA episodes compared to front line officers in uniformed roles. Relative to uniformed officers, the nature of work among sedentary officers tends to be more office based and increasingly, their time at work is spent on non-investigative activities, which they find more stressful (Cooper and Grimley, 1983). There is evidence that as much as two thirds of their time is taken up by meetings, report writing, paper work and other similar non operational activities (Ericson, Pugh and Gunderson, 1977).

One possibility is that this increasing emphasis on organisational and administrative type activities at the expense of investigative, operational type activities has resulted in a set of core sedentary job elements that acts as a barrier to RTW; in much the same way that organisational rather than operational elements of a person's work experience have been shown to be the primary source of ill health among different job types, including psychological distress and MIH among police officers (Feuerstein, Huang, Haoufler, and Miller, 2000; Band and Manuelle, 1987; Hadler, Carey and Garrett, 1995; Hart et al, 1995; Brown and Campbell, 1990; Lobel and Dunkel-Schetter, 1990). In the present research over one quarter of all sedentary officers had a diagnosis of MIH, a rate 40 per cent higher than that for uniformed officers, and MIH was the principle diagnosis among sedentary officers who did not RTW.
Most of the current knowledge on work disability and RTW arises from the literature on high risk occupational groupings for musculoskeletal injuries (predominantly low back pain) which have historically been responsible for the largest proportion of work disability and associated costs (Krause et al, 2001a). Little is known about the relationship between different job role conditions that constitute barriers to RTW, type of illness and LTSA. This highlights a significant knowledge gap. With the changing face of LTSA this focus is no longer adequate. Much more consideration needs to be given to the interplay between job role conditions, type of illness and the prognostic impact on RTW outcomes.

6. To substantiate these patterns in a detailed analysis of a smaller sub group of LTSA respondents

and

7. To utilise the smaller group to conduct a detailed analysis of LTSA from the respondents' perspective on what helped and hindered their return to work (qualitative analysis)

The work disability experience is now discussed from the perspective of the long term sick. Each of the perceived barriers and enablers to RTW from LTSA are located and considered within the context of the relevant domain for their significance to work disability. Interplay between other domain factors and the emergence of secondary barriers is also discussed. Moreover, these factors are considered within the context of communicating relationships, occupational bonding, motivation to RTW and cognitive appraisal in order to advance understanding of the processes involved in work disability and RTW.

10.2.1 Individual Domain Factors

10.2.1.1 Approach to RTW and RTW Goal | Motivation to RTW

Whether respondents had a tenacious approach to RTW with a clear RTW goal or a 'wait and see' approach with a vague RTW goal, or in some cases a clear goal not to RTW at the Anon Force, was perhaps the most consistent and enduring pattern to emerge from Study Two. These respective barriers and enablers are taken to reflect the very specific process of motivation to RTW. In the case of a 'wait and see' passive approach, respondents described passively waiting to see what would unfold
next as they progressed along the disability timeline. This ‘wait and see’ approach presented predominately as disengagement from the RTW process, prolonging LTSA, at times indefinitely. For two thirds of these respondents, they waited to see what others, especially the Anon Force, were going to do to assist them back to work. These respondents had vague RTW goals. So, while at a vague level they spoke of knowing they would eventually RTW, they also spoke of having a lack of clarity about how this would develop into an eventuality. They described the status of disengagement being reversed only when they perceived a change in circumstances; an enabler, at which point they re-engaged with the RTW process. For the other third of respondents with a ‘wait and see’ approach, their disengagement was more about waiting to see what the Anon Force was going to do ‘about them’ but not with a view to RTW. Sixty per cent of this sub group had a clear goal not to RTW at the Anon Force and a few of these hoped for medical retirement so they could start a new career elsewhere. Forty percent remained very unclear about what they wanted. These respondents remained disengaged from the RTW process for the duration of the two year study period.

In the case of a tenacious and proactive approach to RTW this was predominantly described as a personal determination to RTW, with respondents proactively working towards a RTW. It presented as engagement with the RTW process, thereby reducing work disability in most cases [terminally ill respondents were the exception]. For some of these respondents there was a determination to RTW amid a work disability experience dominated by enablers. For many others, there was a determination to RTW and remain engaged in the RTW process amid a work disability experience that was largely defined by many of the same barriers as those demonstrating a ‘wait and see’ approach. These respondents had a clear goal of RTW to the Anon Force.

One of the clearest examples of these contrasting approaches to RTW and RTW goals and their effects on LTSA can be found in the described experiences of respondents in the chronic RTW group. The vast majority of this group encountered a common set of barriers, having similarly defined them, however they responded to them in one of two ways; engagement or disengagement in the RTW process. Taking the organisational domain barrier ‘lack of concern and support from line management’ as an example, from those with a ‘wait and see’ approach and vague RTW goal came
disengagement in the RTW process, for example,

'I was very resentful and very upset with how I had been treated. I felt totally scrambled and every day I got more and more withdrawn. I was feeling a total lack of support and resented the job because of it, they treat you so badly. So I decided to sit in the house and do nothing;

and from those with a tenacious and proactive approach and clear RTW goal came engagement in the RTW process, for example,

'The biggest obstacle to RTW was not to be beaten because so many things were put in my path, like an unhelpful manager and being told I had to go back to my Operational job. So I said to myself 'I know I can do it and I'm not going to give up'. So I turned the anger to a positive. I pressed for a meeting………'

Even though this event was perceived to be a barrier to RTW, the response was to remain engaged in the RTW process.

Another example of RTW approach is apparent in the response given by an officer to a GP who offered a three month medical certificate.

'I asked my doctor NOT to sign me off for 3/12 and this is from someone who hadn't seen me and the appointment lasted 10 minutes.'

What could have potentially become a societal barrier was simply overcome, with the respondent determined not to be signed off but to stay engaged in the RTW process.

This pattern of findings suggests that motivation to RTW, defined here as a combination of approach to RTW and RTW goal, plays a significant role in work disability and RTW, influencing respondent's engagement and disengagement along the disability timeline. It is therefore important to try and understand how approach to RTW and RTW goal influence the states of engagement and disengagement, not least because of the potential to influence those who disengage from the RTW process. In the current thesis, respondents in the chronic group who had a delayed RTW and those in the Not RTW group represented the biggest opportunities to alter the course of LTSA and affect an earlier or successful RTW.

It is also important to understand how the long term sick come to define events as they move along the disability timeline as this clearly had a significant influence on respondents' work disability experiences. Embedded in the stories of those, for example with a 'wait and see' approach and vague RTW goal, were vividly described experiences of events that they defined negatively or positively (barriers and
enablers) and affected their disengagement or engagement in the RTW process at any given moment. For example,

I was very resentful and very upset with how I had been treated. I felt totally scrambled and every day I got more and more withdrawn. I was feeling a total lack of support and resented the job because of it, they treat you so badly. So I decided to sit in the house and do nothing; then I got a call and a visit from my DI and for the first time I felt like somebody cared, and he did help a lot. He listened to my story and got an appointment from Occ Health. Basically he gave a caring and genuine approach. Up to that point, trying to navigate through middle management had been a nightmare. After that I decided it was time to let go and get back.

It is this perceived change in circumstances and the corresponding change from, for example, disengagement to re-engagement in the RTW process, which motivation to RTW cannot account for.

Based on the described stories of respondents, it is suggested that they reflect the involvement a second process in work disability and RTW, cognitive appraisal (Lazarus & Folkman, 1984). Specifically, it is suggested that as a first step, as work disabled move along the work disability timeline they encounter events which they cognitively appraise, making initial or primary interpretations of the events and ascribing personal meaning to them, interpreting them to be negative or positive, and these come to represent their perceived barriers and enablers to RTW. As a second step it is suggested that respondents then make secondary appraisals of the events and determine the thoughts and actions appropriate to respond to them and are represented as engagement or disengagement in the RTW process at that moment in time. It is further suggested that when deciding on an appropriate action, it is done via the mediating variable of their RTW goal, the clarity of which effects its ability to mediate. This is presented diagrammatically in Figure 10.1.

The evidence suggests that the process of cognitive appraisal was independent of motivation to RTW. The example given earlier demonstrated that respondents in the chronic RTW group with either a ‘wait and see’ approach and vague RTW goal or a ‘tenacious’ approach and clear RTW goal similarly defined a number of barriers yet responded differently, engaging or disengaging in the RTW process. Considering the present findings in this context, Table 10.1 shows the different RTW pathways taken by respondents. For those with a ‘wait and see’ approach and vague RTW goal and thus of little influence, it is suggested that when an event was perceived to be and labelled negatively (barrier) they disengaged in the RTW process.
Likewise, if an event was perceived to be and labelled positively (enabler) they re-engaged in the RTW process. RTW behaviour for these respondents was largely influenced by their appraisal of external stimuli in the absence of the mediating effects of a clear RTW goal. In contrast, for those with a ‘wait and see’ approach and clear RTW goal that excluded RTW at the Anon Force it is proposed that irrespective of what they appraised events to be, positive or negative, the mediating effect of the clear goal of Not to RTW resulted in ongoing disengagement from the RTW process.

Table 10.1 RTW Pathways in the RTW Process

<table>
<thead>
<tr>
<th>RTW Approach</th>
<th>RTW Goal</th>
<th>Cognitive Appraisal of an event</th>
<th>Engagement / Disengagement</th>
<th>RTW Outcome</th>
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</thead>
<tbody>
<tr>
<td>Wait and See</td>
<td>Vague</td>
<td>Negative/Barrier</td>
<td>Disengagement</td>
<td>Not RTW</td>
<td>4</td>
</tr>
<tr>
<td>Wait and See</td>
<td>Vague</td>
<td>Positive/Enabler</td>
<td>Re-engagement</td>
<td>RTW</td>
<td>19</td>
</tr>
<tr>
<td>Wait and See</td>
<td>Clear Not to RTW</td>
<td>Positive or Negative</td>
<td>Disengagement</td>
<td>Not RTW</td>
<td>6</td>
</tr>
<tr>
<td>Tenacious</td>
<td>Clear to RTW</td>
<td>Positive/Enabler</td>
<td>Engagement</td>
<td>RTW</td>
<td>16</td>
</tr>
<tr>
<td>Tenacious</td>
<td>Clear to RTW</td>
<td>Negative/Barrier</td>
<td>Engagement</td>
<td>RTW</td>
<td>14</td>
</tr>
<tr>
<td>Tenacious – terminally ill</td>
<td>Clear to RTW</td>
<td>Positive or negative</td>
<td>Engagement</td>
<td>Not RTW</td>
<td>3</td>
</tr>
</tbody>
</table>
For those respondents with a tenacious approach to RTW and clear RTW goal, irrespective of what they appraised events to be, positive or negative, the mediating effect of the clear RTW goal resulted in engagement in the RTW process. Even when confronted with events that were labelled negatively (barrier) and were emotionally difficult, for example "I was completely abandoned. My boss stopped contacting me and it was entirely up to me on my own to push to come back", these respondents remained engaged in the RTW process. So it is not that these people did not experience barriers to LTSA; rather they responded to them in a very different way. The exception was the terminally ill. Irrespective of what these respondents' appraised events to be, the mediating effect of the clear RTW goal resulted in engagement in the RTW process, but not a RTW.

The effect on absence duration and RTW outcome of being motivated to RTW and having a positive goal/expectation to RTW has been demonstrated (Cornally, 1996; Cole et al, 2002; Tan et al, 1997). Similarly, an individual's stated goal/expectation not to return to work at the pre injury/illness job has been shown to predict prolonged work disability (Fishbain et al, 1997); and vague or low expectations about RTW have been associated with low co operation in RTW programs (Carosella, 1994; Kenny, 1995b). What has been less clear has been an understanding of how these elements influence RTW behaviour.

Berglind and Gerner (2002) proposed in their theory of motivation to RTW that RTW outcome was the result of making choices, one of which was whether or not the long term sick 'do or do not want to go back'. The current research supports the importance of having a RTW goal and a proactive approach to RTW. However, the current research has also shown that this process of motivation to RTW alone was unable to account for the variability in RTW behaviour. What were also determined to be important were the clarity of the RTW goal and the process of cognitive appraisal.

The clarity of RTW goal was shown to be important to the LTSA experience with clear goals mediating significant influence on the RTW process, be it engagement or disengagement, while vague goals mediated little influence. In addition, the process of cognitive appraisal was determined to be the mechanism via which the long term sick appraise events and choose actions within their work disability experience. The influence of this second process was especially apparent for those whose motivation
to RTW was defined by a ‘wait and see’ approach and vague RTW goal where any mediating effects of the RTW goal were minimal. What is of particular interest here is the way in which some of these respondents who had disengaged were influenced to re engage with the RTW process. It suggests that for at least some, there is an ongoing appraisal of events and if an event is appraised to be positive, an enabler, this can influence re engagement in the RTW process.

There was speculation among the respondents who did not RTW about how their RTW outcome may have been different if they had been better managed earlier on in their LTSA experience. A detailed comparison of the described LTSA experiences of those who failed to RTW and those who temporarily disengaged in the chronic absence phase group showed them to be strikingly similar in terms of the barriers they experienced, including the individual domain barriers a ‘wait and see’ approach to RTW and vague RTW goals; in other words their motivation to RTW. Where their experiences apparently differed was in the encountering of enablers. Those respondents who eventually re engaged and RTW reported a number of primarily organisational and a few individual domain enablers while those in the Not RTW group reported relatively few and some none. Some of the respondents who had disengaged experienced the enablers threat of half pay, support from the Federation, supportive encouragement from family to RTW, supportive GP, or a change in management or management approach and this external stimulus was sufficient to effect their re engagement in the RTW process. On the other hand, some respondents who had disengaged did not experience any enablers or external stimuli to RTW, and failed to do so. One reason then that these work disabled failed to RTW may be due to a lack of enablers, specifically external reinforcements. The current results suggest that external stimulus was the predominant trigger for those with a ‘wait and see’ approach and vague RTW goals in terms of re engaging in the RTW process. Conversely, internal stimulus appears to have been the principle trigger for those with a tenacious approach and clear RTW goal; determined to RTW irrespective of the negative or positive reinforcements they encountered.

Another possibility why these work disabled failed to RTW may be because they were further along the disability timeline, making it likely that they had experienced more of the symptoms of chronic disability, including relatively more negative appraisals, which may have rendered them impervious to any enablers they encountered. It may
be that by this stage, an enabler such as loss of half pay is inadequate to motivate a respondent back to work, so entrenched are they in their negative mindset. Certainly compared to the other two phase specific groups, a substantially higher proportion of those who failed to RTW reported experiencing negative thought patterns that acted as a barrier to RTW. Previous RTW research has reported that depression, of which negative and distorted cognitions form a major part, is one of the strongest predictors of RTW status (Vowles et al, 2004).

The fact that some respondents who had disengaged responded positively and reengaged in the RTW process as a result of some external stimuli is an important finding not least because of the potential gains to be achieved by better understanding what motivates the work disabled to re engage. Similarly, for those further down the timeline it gives some hope that they are not interminably tied to the disability timeline. The challenge regarding this group is to understand why these respondents did not re engage with the RTW process not least because of the enormous human and financial costs tied up in each of these cases. It may be that more and different enablers are needed to impel these respondents towards a successful RTW, particularly if there is less or more negative ongoing appraisal of the external environment as a result of being further along the disability timeline and therefore more likely to be experiencing chronic psychological symptomology (Eden, 1990). Further research is needed to determine whether some other form of enabler or group of enablers may be sufficient to affect the course of LTSA in respondents who are off for so long.

10.2.1.2 Illness/Injury

One of the most significant findings of this thesis was the impact of illness/injury on RTW outcomes and duration of LTSA. The diagnostic categories of Neoplasms, MIH and Musculoskeletal (Study One, officers only) were shown to be significant barriers to RTW. In Study Two, half of all respondents and three quarters of respondents in the sub acute phase perceived illness/injury to be a barrier to RTW. The vast majority of studies in the RTW research literature have either omitted type of illness/injury altogether as a factor of interest or have focused on a single type of illness/injury and therefore have not been able to isolate the impact of type of illness/injury on RTW outcome and duration (less than 2 per cent of studies reviewed here included type of illness as a factor) (Cheadle et al, 1994; Krause et al, 2001a).
Considering the developmental course of illness/injury as a risk factor for prolonged work disability, the detailed stories in Study Two provided significant insights into this. There was good evidence of substantial interplay between the illness/injury barrier and other barriers and the impact this had on RTW outcome. There was also evidence of the emergence of secondary barriers. The detail of these is discussed within the relevant diagnostic categories.

Musculoskeletal

Both of the current studies found that the musculoskeletal category of illness/injury had a significantly smaller impact on RTW outcome and absence duration relative to MIH and Neoplasms. The relevance of this diagnostic category as a barrier to RTW for police officers was evidenced in Study Two. Within the musculoskeletal category, Police officers were significantly overrepresented in the chronic absence phase compared to police staff. Examination of individual stories within Study Two provided extensive details of the diagnoses and exposed significant diagnostic disparities between officers and staff. Relatively minor musculoskeletal ailments predominated in police staff while major ailments prevailed among police officers.

Thus, while both staff type with musculoskeletal diagnoses had equivalent RTW rates, absence phase analyses revealed that for police staff, musculoskeletal illness/injury was primarily a sub acute absence phase risk factor while for police officers, musculoskeletal illness/injury remained a barrier to RTW significantly further down the disability timeline and in many cases with far more serious ailments. This finding challenges research that has found no associations between injury severity and work status on the disability timeline (Gatchel, Polatin and Kinney, 1995). It adds support to previous research that has shown associations between work that is relatively physically demanding and prolonged work disability (typically involving a primary musculoskeletal diagnosis) (Dasinger et al, 2000; Butterfield et al, 1998), especially when the work is in the custodial sector (Voaklander et al, 1995).

This finding is important because it establishes that while different occupation groups may appear to have the same illness/injury profile, as with officers and staff with musculoskeletal diagnoses, important risk factors for prolonged work disability can be masked by level of measurement and broad diagnostic categories.
In addition to the relative severity of musculoskeletal diagnoses in the officer group, there was strong evidence to suggest that in many cases, prolonged work disability was also due to interplay with other domain barriers and the emergence of secondary barriers. Within the societal domain, wait times for treatments and diagnostics was for many a secondary barrier that emerged as an outcome of being denied access to the Spend to Save Scheme, an organisational domain barrier, and resulted in them being off substantially longer. Within the organisational domain, a lack of contact and support from line management resulted in many feeling discarded and resentful. From this flowed further individual domain barriers. In particular, adoption of a ‘wait and see’ approach to RTW and vague RTW goal in response to the poor treatment received primarily from the Anon Force was implicated by officers as having contributed to ongoing disengagement from the RTW process thereby prolonging their work disability.

In terms of the significance of the organisational domain barrier, this is considered under its domain heading. With respect to the described emergence and effect of the secondary individual domain barriers on RTW, they reflect the involvement of the two processes, cognitive appraisal and motivation to RTW. Deconstructing respondents’ stories, they described adopting a ‘wait and see’ passive approach to RTW and vague RTW goal [motivation to RTW] in response to [after] how they perceived they had been treated by their line management [primary appraisal of event] which subsequently resulted in disengagement from the RTW process. The secondary emergence of these barriers suggests their preventability.

Mental Ill Health

Relative to all other diagnostic categories, MIH was the most significant barrier to RTW from LTSA in terms of RTW rates and episode duration for both police staff and police officers, although more so for officers. While RTW rates were equivalent between the two staff type, police officers with MIH took significantly longer to RTW than police staff. This was due to the disproportionate number of days taken by sedentary CID officers, discussed earlier under job role.

The predominance of MIH is in line with UK National Census Data which showed that MIH has the longest mean duration of LTSA relative to all other diagnostic categories and eclipsed the musculoskeletal category as the biggest single contributor to total
CDL (HSE, 2005). However, the mean duration of MIH absence in Study One of 150.9 days far exceeded the National average of 28.5 days (HSE, 2005). Moreover, contrary to census data, there was no association between sex and RTW outcomes or episode duration for those with MIH. Females accounted for disproportionately more episodes of MIH than males; however they were equally likely to RTW and did not take any longer to do so compared to males.

As with musculoskeletal, there was good evidence of significant interplay between the MIH illness/injury barrier and other domain barriers. Within the societal domain but less so for this diagnostic category, wait times for treatments and diagnostics; within the organisational domain, lack of contact and support from line management, an uncaring, insensitive approach from Occupational Health, impersonal and inadequate communication from Personnel and to a lesser extent denial of occupational services; and within the individual domain, negative thinking and uncertainty about still being able to do the job, returning to an unfamiliar job and unfamiliar people, and for eight respondents a prior longstanding history of MIH, were all implicated by respondents as having contributed to prolonging their work disability. Conversely, the interplay with particular enablers and their impact was equally apparent with threat of half pay, a supportive GP, and supportive family and friends being implicated by some of these respondents as having contributed to their overcoming the MIH barrier thereby shortening their work disability.

There is no comparable research literature against which to evaluate the MIH findings in the context of being the primary diagnosis as most of the current knowledge on work disability has arisen from research that has focused on musculoskeletal injuries (Krause et al, 2001a). However some insights can be taken from the chronic pain/illness disability research literature. Chronic pain disability comprises secondary non organic symptomology, especially somatization, depression and psychological distress, to a clinically resolved primary physical diagnosis, typically musculoskeletal (Feuerstein et al, 1994; Burton et al, 2003). Within this vein of research, similar patterns of work disability to those found here have been established, with studies of chronic pain disability showing MIH to be a significant barrier to RTW (Wemeke, Harris and Lichter, 1993; Feuerstein et al, 1994; Burton et al, 2003; Ericsson et al, 2002; Vowles et al, 2004).
Interestingly, the close association that was found here between a prior longstanding history of MIH and a current diagnosis of MIH calls into question previous chronic pain disability research which has reported that pre injury/illness psychopathology does not predispose patients to chronic pain disability symptoms such as depression (Gatchel, Polatin, and Mayer, 1995; Dersh et al. 2007). Moreover, while numbers are small, there was a trend in Study Two for those with a prior longstanding history of MIH and a current diagnosis of MIH not to RTW (5/8) compared to those with a current diagnosis of MIH but no prior longstanding history of MIH (2/12). Possibly, these factors in combination create a more significant set of MIH symptomology.

Relative to other barriers, MIH was shown here to have a particularly profound impact on the duration of work disability, in some cases extending it indefinitely. One useful way of putting this into perspective is to consider the relative timeline and nature of this risk factor for prolonged work disability. In Study One, 52 per cent of all MIH cases extended into the chronic absence phase compared to 27 percent of musculoskeletal cases while in Study Two, all but two MIH cases extended into the chronic absence phase compared to half the musculoskeletal cases. MIH, principally defined in this thesis by cases of stress, anxiety and depression, is a debilitating category of illnesses. When an individual experiences this type of MIH numerous cognitive and emotional processes such as concentration, attention span, short term memory, effort and arousal and energy levels, and mood states may be negatively affected and can lead to a myriad of emotions, which depending on the context, may include feelings of anger, hurt, vulnerability and rejection (Beck, 1967; Lazarus and Folkman, 1984). It can also affect the way an individual perceives or appraises events (Eden, 1990).

In the context of work disability it is suggested that it is this symptomology of MIH, i.e. its ability to affect the way an individual perceives or appraises events, which may in part explain the significance of MIH as a barrier. As the long term sick with MIH cognitively appraise and label events they do so through their MIH filter which may result in them making relatively more negative appraisals which in turn results in prolonged work disability. By way of example, three quarters of the people in the chronic absence phase perceived occupational health to have an uncaring and insensitive approach to them which they perceived to be a barrier to RTW. In contrast, only 11 per cent of people in the sub acute group, with significantly fewer
MIH diagnoses, perceived this to be a barrier. In addition, the two most populated barriers to RTW in the chronic phase both related to lack of support and assistance from line management and occupational health. Recent research on chronic work disability, defined by its secondary non organic symptomology, has identified that one of the most significant differences between those who RTW and those who do not is perceived level of employer support (Krause et al, 2001b; Feuerstein and Thebarge, 1991; Holmgren and Ivanoff, 2004).

Another possibility why MIH is associated so strongly with work disability may be due to organisations being more reluctant to get too involved in the management of MIH cases. There is some evidence that managers feel less comfortable and able to manage people with mental health issues (Major, 2005). In the current thesis, some of the stories of respondents with MIH contained elements that are suggestive of this. For example, in the case of one of the respondents with MIH who had been sectioned, they received no contact whatsoever from the Anon Force during their hospitalisation and later found out that unsure what to do, management had sought advice from occupational health who advised them to 'stay away'. Interestingly, this situation seems to exemplify the involvement of the two RTW processes motivation to RTW and cognitive appraisal. From the perspective of long term sick, the respondent appraised the event to be negative and identified occupational health to be uncaring and insensitive. The respondent labelled it a barrier and disengaged temporarily from the RTW process with a ‘wait and see’ approach and vague RTW goal.

**Neoplasms**

This diagnostic category affected a relatively very small number of respondents in both studies and for this reason and the fact that in the vast majority of cases it was a terminal diagnosis, this category is not viewed as being representative of the illness/injury barrier. For these few, consideration needs to be given to how best to manage such cases. Realistically, in the current thesis, there was no chance of these respondents RTW, yet they remained employed. This cannot be the most efficient way to manage terminal illness from an organisational perspective and reflects a poorly coordinated internal policy that needs urgent attention.

In summary, with respect to the barrier illness/injury, surprisingly little is known about it and its impact on prolonged work disability and RTW outcomes (Cheadle et al,
1994). In particular, very little is understood about how MIH influences work disability and RTW. The relationship between particular illness/injury and LTSA needs to be further evaluated in order to develop more targeted remedial actions.

10.2.1.3 Prior Longstanding History of MIH

The pre morbid risk factor for prolonged work disability, a prior longstanding history of MIH, was the only characteristic that was significantly different between respondents who RTW and those who did not. It was described by respondents as a barrier to RTW, something that 'had been with them for years' and seemed to particularly affect their ability to cope with the various aspects of their life, well beyond the sphere of work issues. The relationship between a prior longstanding history of MIH and RTW from LTSA has received very little attention in the RTW research literature and available findings are equivocal. The current findings challenge those who have found no significant support for a relationship between a history of prior mental ill health and chronic work disability (Dersh et al, 2007). The current finding strongly supports this relationship and highlights the relevance of pre existing conditions as potential barriers to RTW from LTSA and their possible relationship with current state barriers. For most respondents with this pre morbid barrier, their description of its impact seemed to merge imperceptibly into the realm of their current MIH diagnosis. The role that a prior longstanding history of MIH plays in long term work disability deserves further attention. The insights from the current research could be useful in identifying high risk groups.

10.2.1.4 Psychological (Chronic Disability) Symptomology

Another significant finding of the current thesis was evidence of the onset and developmental course of chronic disability or psychological symptomology; secondary non organic symptoms (Feuerstein et al, 1994; Burton et al, 2003). Study Two findings showed that a third of the early RTW respondents felt isolated and disconnected from the Anon Force, had lost confidence and developed negative thought patterns concerning uncertainty about still being able to do the job. Some were aware of these symptoms within just a couple of weeks of being off and many were aware of their hindering effects. In addition, a number of respondents in the chronic RTW group spoke of the earlier resolution of their illness/injury, only to be displaced by other barriers such as 'bad back syndrome' and depression. These findings bring into question current thinking regarding the timing of the onset of
chronic disability symptoms which suggests it is later in the disability timeline, between three to four months (Gatchel et al., 2006; Burton et al., 2003; Gatchel, Polatin and Kinney, 1995). The present results suggest that symptoms typically associated with the chronic phase of LTSA may develop much earlier in the disability timeline than previously thought.

That chronic disability symptoms appear to develop much earlier than previously thought is crucially important given the enormous human and financial costs associated with them (Turner et al., 2000). For example, in a study of employees with musculoskeletal injuries, those with higher levels of psychological distress were nearly five times less likely to return to work than the least distressed (Crook et al., 1998). In terms of how this factor influences the course of work disability it is suggested that as with respondents with a primary diagnosis of MIH, secondary psychological symptomology may act to prolong work disability at least in part through its influence on the process of cognitive appraisal, with the long term sick with such symptomology making relatively more negative appraisals of events in their work disability experience resulting in prolonged work disability.

10.2.1.5 Elapsed Time off Work and Concomitant Change and Daily Routine / Lifestyle Changes

These two individual domain barriers were apparent in all absence phases but increasingly so, suggesting their increasing importance over the disability timeline. In all cases they either developed as secondary barriers, following on from other barriers such as 'wait times for diagnostics and treatments within the NHS' or were facilitated by the presence of other barriers, in particular, lack of contact and support from the Anon Force.

Regarding 'elapsed time off work and the concomitant change', for many respondents, with the passage of time came increased feelings of isolation, disconnection and being left behind in terms of work relationships and work based knowledge. It is suggested that these sentiments are, at least in part, a reflection of the poor communicating relationship experienced by many of the long term sick where the occupational bond has been fractured (Bruyere and Shrey, 1991). The roles that communicating relationships and occupational bonding play in work disability and RTW are discussed next under the organisational domain.
Turning to the 'change to respondents' daily routine' from one of attending work, to one of not attending work, for many this brought with it the emergence of an unhelpful non work routine which they nonetheless quickly accommodated. The new, typically unhelpful routine was described as one that “seduced you” and that relatively quickly you “get used to not going to work”. The described experiences of these respondents indicate that many accommodated their new circumstances to such a degree that the temporary 'illness' routine was relatively quickly adopted as the norm which then acted as a major barrier to RTW.

It is suggested that the accommodation of this new, unhelpful non work routine likely resulted from a combination of factors that impacted engagement in the RTW process. Firstly, in accommodating the new circumstances it is suggested that respondents made an initial appraisal and subsequent labelling of them. Secondly, this process of appraisal occurred in the context of feelings of isolation and disconnection from the Anon Force, which respondents' stories inform of, and it is with this circumstance that respondents made their comparative choice: RTW to an organisation they felt lost to, or remain at home? In the case of those with a tenacious approach to RTW with clear RTW goal, the findings inform that they were able to remain engaged in the RTW process. However, for those with a 'wait and see' approach to RTW and vague RTW goal, they disengaged from the RTW process.

It is suggested that the process of cognitive appraisal played a significant role in accommodating the new non work routine and that poor communicating relationships and fractured occupational bonds contributed to the choice of daily routine and ongoing disengagement.

The pattern of findings of 'elapsed time off work and concomitant change' and 'daily routine/lifestyle changes' suggests that both are influenced by time; it also shows how early on these barriers begin, with a third of those in the sub acute group experiencing them. Time has previously been established as a barrier to RTW; the longer a person is off, the longer they are likely to be off (Shrey and Mital, 2000). These findings contribute to understanding why in part this may occur. Understanding this is important for any RTW initiative.
10.2.2 Organisational Domain Factors

Turning now to the organisational domain, the current findings illustrate that the quality of the communicating relationships is paramount. Over half the respondents in each of the absence phase groups perceived 'contact, concern and support from line management' and 'standard of Occupational Health services' to be barriers, making them the two most prevalent barriers to RTW. Significant numbers from each of the absence phase groups also perceived 'standard of Personnel services' to be a significant barrier. From the perspective of the long term sick, relationships with line management, Occupational Health and Personnel represented the most significant communicating dyads in their work disability experience in terms of RTW. There is compelling evidence to indicate that the variability in the quality of these communicating relationships in respect of the level of activity that was engaged in and the nature of that engagement influenced work disability and RTW via the process of occupational bonding (Bruyere and Shrey, 1991). These three barriers had a profound influence on respondents and each is now discussed within the context of work disability and RTW.

10.2.2.1 Contact, Concern and Support from Line Management

This organisational domain barrier brought with it for many respondents a huge psychological toll described variously as feelings of being "abandoned", "disconnected" or "frightened". Many responded to this barrier with a 'wait and see' passive approach to RTW and vague RTW goal, resulting in disengagement from the RTW process. While previous research has reported the significance of a supportive style of management, including psychosocial support, and proactive policies and procedures for securing a timely RTW (Krause et al., 2001b), this finding suggests that not only is a lack of a supportive style of management a significant barrier, but its absence appears to create the right conditions in some for the development of a secondary, psychological barrier (Robinson et al., 1997; Bruyere and Shrey, 1991). This implies that the development of such barriers may be preventable.

The centrality of the employer-employee dyad in occupational rehabilitation has been theorised previously (Kenny 1995a; 1996b; Bruyere and Shrey, 1991). The current findings confirm the criticality of this communicating relationship in the work disability experience. They further indicate that the quality of this communicating relationship influences work disability and RTW via the process of occupational bonding. There
was considerable evidence of respondents describing defining features of this process when both weak and strong (Bruyere and Shrey, 1991). Respondents' stories were rich with descriptions of how isolated, abandoned and disconnected they felt from the Anon Force as contact and support waned from line management, and in some cases never really started. So with poor quality communicating relationships came symptoms which served to fracture the occupational bond. Conversely, in those cases where a strong bond was maintained between line management and the long term sick with regular and supportive contact and committed and caring assistance, this relationship became an invaluable connection for the work disabled. Described as an enabler, respondents felt that they were "part of the family", genuinely cared for and aided in their RTW. So over time, as work disruption continued and the quality of the communicating relationships varied, if the occupational bond weakened and fractured or was severed, respondents disengaged from the RTW process, and when it remained strong and respondents perceived they were valued they remained 'bonded' to the Anon Force, engaged in the RTW process.

Another important aspect of this barrier may relate to the long term sick having different quantitative and qualitative needs from their communicating relationship with line management depending on the presence and influence of MIH symptomology and its ability to affect the way an individual perceives or appraises events. This in turn would be reflected in the need for equally varying degrees of occupational bonding among the long term sick. In the current research, while the barrier 'contact, concern and support from line management' was perceived by over forty per cent of respondents in the sub acute phase, nearly ninety per cent perceived it in the chronic phase, where MIH symptomology was significantly more prevalent. It is suggested that the work disabled with MIH likely appraised events relating to their communicating relationship with line management relatively more negatively than those without MIH which resulted in them assessing the barrier to be more significant and associated feelings such as disconnection and worthlessness more pronounced.

Some support for this comes from a recent study into the impact of supervisor behaviour on RTW outcome in people with MIH where it was found that while better communication between supervisor and employee was associated with higher RTW rates among non MIH employees, it was not associated with higher RTW rates among those with MIH (Nieuwenhuijsen et al, 2006). These authors concluded that
employees with MIH may be more difficult to communicate with. One possibility is that in appraising the communication more negatively, they needed more and or different communication to affect the same RTW rates. Cooper and Grimley, (1983) found that across all ranks of CID officers (except sergeants), discontent with the way in which they were managed was a significant predictor of MIH. One of the principle sources of distress among CID officers was being regarded impersonally, as a number, rather than an individual person. It is possible that these management practices spill over into the management of the work disabled and result in the long term sick making similarly negative appraisals of their experiences, which in turn serve to fuel work disability. There is no reason to think that this perspective would alter once a person became work disabled, and if left with inadequate management support, it may well be exacerbated. This being the case, it is suggested that the long term sick with MIH symptomology may need a relatively stronger occupational bond to make them 'feel' valued and bonded. This would directly translate to a need for more and perhaps different management communication and support practices to ensure this is achieved.

With respect to the long term sick it is clear that their communicating relationship with line management is central and the quality of this communicating relationship influences work disability and RTW via the process of occupational bonding. In addition, the nature and type of contact and support needed by the long term sick is thought to vary according to their MIH status with those with MIH likely needing more and or different support and contact in order that they feel 'bonded' to the employer.

10.2.2.2 Standard of Occupational Health Services

This communicating relationship between the long term sick and occupational health is highly significant with seventy per cent of respondents perceiving one or more of three organisational domain barriers in this category. ‘Lack of professional services and practical RTW assistance’ and ‘denial of services’ were perceived to be particularly apparent. Within the former: minimal or no support; lack of contact; lack of assessment of disability and matching to appropriate recuperative duties; lack of any discussion about near and longer term work prospects; and inappropriate and unhelpful timing of any offers of assistance, typically coming after they had RTW, were commonplace. The overriding sentiment among the long term sick was a sense of frustration at the complete mismatch between what they expected from the
department [based on letters offering help] and what they actually received. For many this affected their work disability progress with the adoption of a 'wait and see' approach to RTW and vague RTW goal, resulting in disengagement from the RTW process. For others, with a tenacious RTW approach and clear RTW goal they resolved to chase their own treatment actions, some even paying for it themselves.

Regarding the denial of services such as 'Spend to Save', this resulted in respondents being forced to use the National Health Service. This in turn directly resulted in them experiencing the societal domain barrier 'wait time for diagnostics and treatments' as a secondary barrier, with delays of up to one and a half years, which drastically impeded their RTW. The protracted wait time and denial of services also created the opportunity for the development of other secondary, individual domain barriers. Twenty eight per cent of police officers were denied access to the Spend to Save scheme which resulted in them being off substantially longer than they may otherwise have been. Many of these officers interpreted the denial of their request as a sign of how little value they were to the Anon Force and reinforced feelings of worthlessness and frustration. Some went on to develop secondary individual domain barriers during the wait period. In particular: 'elapsed time off work and the concomitant change', dominated by feelings of growing isolation and disconnection; 'self doubt and resentment' and the adoption of a 'wait and see' RTW approach with vague RTW goal; and daily routine/lifestyle changes were apparent. Two respondents with musculoskeletal diagnoses were such officers. While the 25 other respondents in this diagnostic category accounted for a collective total of 3101 CDL, the two officers accounted for a total of 1281 CDL. Both respondents spoke at length of being denied their diagnostics and treatments on the Spend to Save scheme, both subsequently developed deep resentment and a 'wait and see' approach to RTW with vague RTW goals. Both remained disengaged from the RTW process and neither returned to work during the study period.

These barriers had a profound impact on the long term sick. For many, the lack of any perceived effort to nurture and provide care within the communicating relationship was perceived as a complete dereliction of occupation health’s responsibility to them. It is suggested that the poor quality of this communicating relationship affected the occupational bond between the long term sick and the Anon Force, and with feelings of worthlessness and frustration, some disengaged from the RTW process, adopting a
'wait and see' approach to RTW and vague RTW goal. For some, this disengagement lasted indefinitely.

10.2.2.3 Standard of Personnel Services - Impersonal & Infrequent Communication

The communicating relationship between the long term sick and Personnel is another relationship of significance for the work disabled with half the respondents perceiving it as a barrier. The findings suggest that the quality of this communicating relationship had a particular influence on the occupational bond with the long term sick (Bruyere and Shrey, 1991).

With the passage of time, impersonal and infrequent communication from Personnel was revealed to be a significant barrier for increasing numbers of respondents. It is suggested that this increasing need for information as the long term sick move along the disability timeline is related to the occupational bond. Over time, this communicating relationship and the information shared within it becomes one of the few information channels open to the long term sick and it serves to inform. In so doing, the information likely helps the long term sick to feel that they are still connected to their organisation. There was substantial evidence of respondents feeling disconnected with a poor communicating relationship with Personnel and that receiving contact was an enabler.

Why respondents should look to Personnel for information and perceive its contact to be insensitive and impersonal, for example using standard letters, is interesting because it is suggestive of further manifestations of the occupational bond. The occupational bond is strengthened like all relationships, through nurturing and sharing in order to build mutual trust and understanding (Bruyere and Shrey, 1991). It is possible that respondents looked to Personnel for information because they were perceived to represent the human, nurturing side of the organisation and to be the place where human management policies reside. As such, respondents may have expected a caring, sensitive and interested approach with informed sharing of information. However, what they received was communication that was authoritative, impersonal and unidirectional, what Pransky and colleagues (2004) referred to as the traditional approach and a barrier to RTW. Respondents expressed their disappointment both at the inadequacy of the information that was communicated and the manner in which it was communicated, with many receiving nothing but standard
letters. As a key communicating relationship, the findings suggest that its poor quality significantly influenced the occupational bond and left many of the long term sick experiencing a raft of negative emotions ranging from anger to disappointment. While there is little direct evidence to indicate that respondents adopted a ‘wait and see’ approach to RTW in response to this barrier, there was a strong sense of the exponential goodwill that could have arisen from a good quality communicating relationship with Personnel and that this would have involved a few relatively simple and personal communication activities. As an integral part of the organisation and one that is seen at least metaphorically as the custodian of human welfare policies, Personnel’s commitment to and support for the work disabled and the RTW process is important and was found to be lacking.

10.2.2.4 Attendance Management Policy

A number of respondents in the two RTW groups perceived the AMP to be a barrier in that it was seen to be punitive rather than encouraging, penalising rather than supporting. As with management style, it may be that such policies would be more effective if they emphasised support structures rather than imply any disingenuousness of absence. Previous research has shown that positive human resource polices can make a difference in disability experience (Lewin and Schecter, 1991; McLellan et al, 2001). Possibly the mechanism of occupational bonding is involved here, with the negative implications of the policies serving to undermine the trusting relationship of the employee – employer dyad.

10.2.2.5 Mechanistic Culture

The ‘mechanistic culture’ of the organisation was perceived by a relatively small number of respondents, most of who had been work disabled for more than three months, to be a barrier to RTW. They spoke of its machine like, semi militaristic qualities which left them feeling isolated, like a number, and wondering “how to get back into the ‘system’”. This is consistent with previous descriptions of policing culture, which has been defined as macho, militaristic, secretive and closed, and it highlights the hindering effect that such a culture can have on the course of LTSA (Brown, 2000; Dantzker, 1999). Previous research has shown that an organisation’s culture can affect the course of LTSA. In particular, that a people oriented culture shortens work disability (Williams et al, 2005; Hunt and Habeck, 1993; Amick III et al, 2000). Such cultures are defined by their friendly, encouraging and trusting work
environment (Wallach, 1983). For those respondents who perceived the culture of the Anon Force to be a barrier it is possible that over time it weakened the occupational bond with its emphasis on hierarchy and procedure and its lack of warmth and nurturing.

Interestingly, some respondents noted that when everything was going well, the Anon Force was a “great place to work” and it looked after respondents like “a family”, yet this starkly contrasted with respondents’ descriptions of feelings of being very much the outsider once off sick. These polarised descriptions possibly reflect the Policing culture but from two very different perspectives; one when a respondent is at work, engaged in the culture and thus ‘bonded’, and one when a respondent is work disabled and disengaged from it, and less ‘bonded’. It may be that in moving from a state of work to a state of work disability, there is an equivalent change in the perceived needs of the long term sick, such that whereas the characteristics of the hierarchical, semi militaristic culture are valued and matched to the needs of respondents when at work, the characteristics of a more people oriented culture are more valued and better matched to their changed circumstances. Wallach (1983) argues for the importance of an appropriate fit, or match, between an organisation and the needs of its employees. He hypothesises that the more closely an employee’s needs fit the organisation’s culture, the more likely the employee will be to remain with the organisation and perform well. These findings have important implications for the management of work disabled within such cultures.

10.2.2.6 Recuperative Duties

A further organisational barrier that was almost exclusively encountered by respondents in the later RTW group was the unchallenging nature of recuperative duties and the unfamiliarity it represented both in terms of the work, the people and the environment. Looking first at the unchallenging nature of the work, one of the difficulties facing the Anon Force is the availability of appropriate recuperative duties especially for its officer population, given that these roles do not easily lend themselves to being split into tasks that could be used to accommodate the early RTW of officers before they have fully recovered. For some officers, being offered office work such as filing and emails did not constitute a ‘proper’ job and this created resentment in some. Equally, for some police staff, being offered recuperative duties that took the form of their normal office job but on reduced hours was seen as very
limited and a barrier. There were however examples of officers being placed in some of the more sedentary aspects of station policing such as: completing inventories of lost property, evidence, and confiscated items; assisting in control rooms; providing support to the desk sergeant; and sorting station equipment. Likewise, for police staff, there were examples of them being placed in temporary roles that accommodated their RTW level of ability. Overall, providing recuperative duties for police officers was relatively no more of a barrier than managing the recuperative duties of police staff, with both staff type perceiving them to be unchallenging / limited.

These findings are consistent with previous research that has highlighted the difficulties that can be associated with providing recuperative duties that are seen as useless (Habeck, 1999; Baril et al, 2003). Notwithstanding these difficulties, given the weight of evidence supporting the efficacy of RTW as soon as possible in whatever capacity, as a means of decreasing the chances of chronic disability developing, it is essential that respondents are encouraged to cooperate with such initiatives (Shrey and Breslin, 1992; Armstrong and Lyth, 1999).

The other aspect of recuperative duties that proved to be a barrier was the unfamiliarity it represented both in terms of the work, the people, and the environment. Previous research has found that the most effective job that work disabled can return to after LTSA is one that incorporates at least some of their normal duties (Thurgood, 1999). It was speculated that this was due to the link it provided back to work, to colleagues and to the environment. The current findings provide supportive evidence for the efficacy of this. They also suggest that the reason why familiarity may be important is because of a concomitant loss of confidence. A number of respondents spoke of familiarity being important because they were already ‘lacking in confidence … then … having to relearn everything’.

The current findings suggest that every effort should be made to have individuals RTW doing as much of their normal job as possible and graduate to their full job as they are able. It also speaks against having a separate unit for those who RTW on recuperative duties; in all cases, work disabled should be accommodated back in to their pre morbid work environment.
10.2.2.7 Internal Investigation Process

This barrier was restricted to a small number of officers and staff and was not representative of the broader group. However, lessons can still be learned about the effect of poorly coordinated internal processes given that most large organisations have policies and processes to deal with issues such as discipline. This research found that those involved in the internal investigation process had to wait an average of one year to learn of the outcome of the investigation and during that time they were utterly abandoned, receiving no communications from any quarter of the Anon Force. This can not be an appropriate way to manage any staff member and requires immediate remedial attention.

10.2.3 Societal Domain Factors

10.2.3.1 Availability of Occupational Rehabilitation Diagnostics and Treatments

The majority of respondents who found themselves dependent on the National Health Service had been denied access to diagnostics and/or treatments through the Anon Force. This resulted in one quarter of all respondents experiencing prolonged delays while waiting for their referrals. The protracted wait times of up to one and a half years underscores the current concerns about the NHS and its ability to provide timely services to the population (Linton et al, 1993; McIntosh et al, 2000). It also highlights the significant risk factor that long delays in receiving diagnostics/ treatments can represent for protracted LTSA; as noted earlier, some went on to develop secondary individual domain barriers during the wait period. In particular: elapsed time off work and the concomitant change, dominated by feelings of growing isolation and disconnection; the adoption of a ‘wait and see’ passive approach to RTW and vague RTW goal; and daily routine/lifestyle changes were apparent and contributed to ongoing work disability. This finding provides further support for early intervention with adequate and appropriate workplace based RTW interventions (Habeck, 1989; Habeck et al, 1998; Waddell and Burton, 2001).

10.2.4 Enablers

For the most part, enablers mirrored barriers and as such had very positive effects on RTW outcomes. So for example, in the case of the organisational domain enabler ‘contact, concern and support from line management’, for those who perceived
appropriate contact and support, it effected a perception of good quality communicating relationships between respondents and their line management which in turn influenced the RTW process by strengthening the occupational bond, which in turn was evidenced by engagement in the RTW process. There was persuasive evidence of strong occupational bonding with respondents describing having a "great sense of belonging", "being totally cared for" and that the communicating relationship was "a lifeline".

Additional enablers were supportive family and friends/colleagues, threat of half pay, and a supportive GP, each of which was credited with having shortened work disability. These are now discussed in turn.

10.2.4.1 Supportive Family and Friends/colleagues

Roughly one fifth of respondents perceived this to be an important communicating relationship within the work disability experience. The support respondents derived from family and friends served to cushion the negative effects of isolation and negative emotions that can accompany prolonged work disability and for some respondents, it served as a specific reinforcement to RTW. While research findings in this area are mixed the current findings support previous research that has shown the importance of remaining socially integrated (House et al, 1986). The present findings also suggest that co worker support can be a useful channel for maintaining the occupational bond with the workplace so that they feel an ongoing engagement with their workplace. There were rich examples of respondents receiving visits from colleagues and the very positive effect this had on keeping them feeling connected through hearing the anecdotal stories about colleagues and what was happening in their unit. There is little research on this factor and what there is suggests that co worker support is not associated with duration of LTSA (Krause et al, 2001b). These findings challenge that and suggest that co worker support could be an important variable in RTW outcomes and its influence is exerted through the process of occupational bonding.

10.2.4.2 Threat of Half Pay

Notwithstanding that only six people identified this as an enabler to RTW, for these chronic work disabled, this threat was seen as a specific motivator to RTW. This
finding is seen as being supportive of several studies that have found a positive relationship between level of money / benefit and duration of LTSA (for example (Geurts et al, 1994; Prins, 1990).

10.2.4.3 Supportive GP

The primary aspect of this enabler was the support that respondents were provided with by their GP. This support took the form of getting things organised, such as counselling [when it had been denied through the Anon Force], requesting attendance at the Anon Force's rehabilitation centre, and writing letters defining current capabilities. In essence the GP's kept things moving within the RTW process and in so doing were able to keep the respondents engaged in the process. In many respects, what respondents described closely resembles medical case management. The findings here support the very limited literature that suggests case management, which involves the co ordination of information and services, may reduce LTSA (Wadell and Burton, 2001).

Regarding these enablers, more research is needed to further understanding of how each of these factors acts to enable timelier RTW. However, the present results are encouraging in that they provide some insight into some of the factors that appear to be potentially motivating to the work disabled and could prove useful in a RTW interventions strategy.

10.4 SUMMARY

The results of this thesis provide an understanding of the complexity of being long term work disabled from their perspective. The results show that through this lens, the work disability experience or LTSA can be conceptualised systemically, as three identifiable co existing domains; individual, organisational and societal, each populated with factors perceived by the long term sick to be associated with the work disability experience and their effects, manifested in work disability duration and RTW outcome; thereby supporting the need for a wholistic and integrated approach to RTW interventions.

The results also provide knowledge about key RTW processes, explaining how respondents perceived and responded to events as they progressed along the
disability timeline. In particular, communicating relationships, occupational bonding, motivation to RTW and cognitive appraisal were all identified as processes that are significantly involved in work disability and RTW.

The current findings provide compelling evidence that supports the primary position of psychosocial factors as barriers to RTW. A prior longstanding history of MIH; a current diagnosis of MIH; self doubt/loss of confidence; the presence of chronic disability symptoms; elapsed time off work and the concomitant changes; adoption of an unhelpful non work daily routine; a ‘wait and see’ approach to RTW and vague RTW goal; and poor quality communicating relationships with line management, Occupational Health and Personnel were all perceived by the long term sick to be significant barriers to RTW from LTSA.

This analysis has also provided valuable data to guide the provision of targeted RTW interventions that could assist respondents RTW earlier or at all. While respondents demonstrated individualised reactions to their injuries and to their circumstances a number of core themes emerged. The knowledge gained is particularly germane to the development and implementation of public policy and practices in order that they are theoretically sound and evidence-based. A set of innovative recommendations for managing work disability and RTW from LTSA are discussed in the concluding chapter.
11.0 CHAPTER 11 CONCLUSIONS AND RECOMMENDATIONS

11.1 INTRODUCTION

This concluding chapter is divided into 6 main sections. Section 2 provides an overview of the principle proposition of this thesis, the resultant populated conceptual framework, and some conclusions pertaining to the findings. Based on these, Section 3 outlines a set of innovative recommendations for RTW policies and practice for the management of long term work disability with the aims of ensuring the most expeditious recovery and RTW and the prevention of the development of chronic psychological disability symptoms. Section 4 discusses the strengths and limitations of the research. Section 5 provides suggestions for the direction of future research in the RTW field and Section 6 offers some final observations.

11.2 OVERVIEW

11.2.1 Background

RTW from LTSA is a complex problem that needs a complex solution. Most studies have considered single domains or particular aspects of the problem such as work place factors or health care factors and have often been inconclusive (Baril et al, 2003). Moreover, the majority of RTW research effort has focused on objective determinants of the person, the work tasks or societal issues such as legislated disablility policies. The perspective of the work disabled has been largely overlooked and little is known about their viewpoint of what constitutes the barriers and enablers to RTW from LTSA and how their perceptions of their LTSA experience might impact RTW outcome (Shaw et al, 2002). Within the RTW literature there is an emerging critique that suggests there is a need for an integrated approach to understanding the multiple risk factors associated with RTW from LTSA and that the perceptions of the long term sick of their work disability experience is essential for improving understanding of the variations in RTW behaviour and in order to better target interventions aimed at achieving successful RTW outcomes (Turner et al, 2000; Franche and Krause, 2002; Shaw et al, 2002).

11.2.2 The Research Proposition

This thesis set out to explore the proposition that through the lens of the work disabled the experience of LTSA can be conceptualised systemically, as three identifiable, co
existing domains; societal, organisational and individual, each populated with factors perceived by the long term sick to be associated with the work disability experience and their effects, manifested in sickness absence duration and RTW outcome; thereby supporting the need for a wholistic and integrated approach to RTW interventions (Loisel et al, 2001a; Franche and Krause, 2002; Shaw et al, 2002). This proposition accepted that there would be exceptions to it, for example the person with a terminal illness who will never RTW. For the most part however most people if provided with adequate interventions from the identified domains would RTW.

To examine this, an extensive investigation was undertaken to identify the key factors to RTW from LTSA using a Policing population. A mixed research methodology was used in order to capture the very different types of information that are derived from the quantitative and qualitative research methods. The broad objective patterns embedded within the large data set from Study One were detailed by the stories that came from Study Two which elaborated and identified additional barriers and enablers from the perspective of the long term sick.

11.2.3 The Two Studies

The aim of Study One, the quantitative study, was to establish regularities and patterns in LTSA among the occupationally diverse Anon Force using an administrative data base. This study substantiated the presence of; illness/injury, job role, sex [duration only], and number of LTSA episodes as significant individual domain factors of prolonged work disability. The aim of Study Two, the qualitative study, was to identify and describe the barriers and enablers to RTW from LTSA from the perspective of the long term sick and the processes involved in work disability and RTW, and as part of this, corroborate and detail the equivalent quantitative analyses from Study One. In so doing, new and elaborated information would be provided about barriers and enablers to RTW from the perspective of the long term sick, how they perceive and respond to events in their LTSA experiences, and the effect this has on work disability and RTW.

Of the comparable quantitative analyses of Studies One and Two, only illness/injury was sustained as a significant barrier to RTW. Thematic analyses revealed a total of 16 barriers comprising one in the societal domain, eight in the organisational domain, and seven in the individual domain; and 9 enablers comprising one in the societal
domain, five in the organisational domain, and three in the individual domain.

The findings from this thesis provide support for the importance during both the design and analysis stages of taking account of the disability phase specificity of risk factors and the need to include in research designs multiple outcome measures and analytic strategies that can account for this phenomenon in order to detect risk factors that are only associated with a particular phase on the disability timeline.

11.2.4 Key Findings

2. To develop a theoretical work disability and RTW model integrating societal, organisational and individual domain characteristics from the perspective of the long term sick

This thesis developed a conceptual framework of the work disability experience from the perspective of the long term sick. It aimed to unify the different domains and multiple risk factors associated with RTW from LTSA from their perspective. Figure 11.1 depicts this work disability experience. It summarises the three domains that were found to coexist, populated with the identified factors. Based on these findings, long term work disabled would be likely to experience prolonged work disability and lower RTW rates if they experienced the barriers shown. Equally, work disabled would be more likely to experience shorter work disability and higher RTW rates if they experienced the enablers shown.

11.2.4.1 Societal Domain

Within the Societal domain, wait times and availability of NHS occupational rehabilitation diagnostics and treatments was a significant barrier to RTW not just because of the effect it had on prolonging work disability, but the secondary barriers that flowed from this. Most notably, elapsed time away from work and the concomitant change; the adoption of a ‘wait and see’ approach to RTW and vague RTW goal; and daily routine/lifestyle changes, were apparent and contributed to ongoing work disability. This societal domain barrier was itself a secondary barrier for the majority of respondents who were refused access to the ‘Spend to Save’ scheme. Conversely, GP’s provided an enabling reinforcement to RTW for some.
11.2.4.2 Organisational Domain

Within the organisational domain, the three key barriers and enablers were related to relationships with line management, Occupational Health and Personnel. The long term sick perceived these to be the most significant communicating dyads in their work disability experience in terms of RTW. Strong evidence indicated that the variability in the quality of these communicating relationships in respect of the level of activity that was engaged in and the nature of that engagement influenced RTW via the process of occupational bonding (Bruyere and Shrey, 1991).

Figure 11.1 Domains of Factors Influencing LTSA and RTW Outcomes

From line management respondents expected care and concern, regular contact, to be kept informed and included, and to have the AMP implemented, yet they typically perceived little contact or support and felt abandoned and disconnected. From
Occupational Health, respondents expected professional services and practical assistance to RTW yet they characteristically perceived little if any help or not until after they had RTW. From Personnel they expected a caring, sensitive and interested approach with informed sharing of information yet they typically received communication that was authoritative, impersonal and unidirectional. The poor quality of these communicating relationships significantly contributed to prolonging work disability and weakened the occupational bond. Respondents stories were full of examples where they had experienced a lack of contact and support from a communicating relationship; perceived and labelled this to be a barrier; described the personal impact in a manner that attested to the negative effect on the occupational bond; and then for many came the adoption of a ‘wait and see’ approach to RTW with a vague RTW goal and disengagement from the RTW process.

Each of these barriers, but in particular, line management and Occupational Health, contributed to the development of secondary individual domain barriers. In particular: elapsed time of work and the concomitant change, dominated by feelings of growing isolation and disconnection; the adoption of a ‘wait and see’ passive approach to RTW and vague RTW goal; and daily routine/lifestyle changes contributed to prolonged work disability. For many, the societal domain barrier ‘wait times and availability of NHS occupational rehabilitation diagnostics and treatments’ developed after they had been denied occupational health services from the Anon Force.

In contrast to this, for the minority of the long term sick who perceived appropriate contact, support and services from these communicating relationships, theirs were positively described experiences that strengthened the occupational bond and served to enable them to RTW. To a lesser extent, the availability of recuperative duties was a barrier for some and an enabler for others.

11.2.4.3 Individual Domain

Within the individual domain the most significant factors associated with prolonged work disability were psychosocial. MIH, as a prior long standing diagnosis, as a primary diagnosis, and as secondary chronic symptomology, was a highly significant barrier to RTW. In addition, illness/injury, elapsed time off work and the concomitant change, and changes to the daily routine from work to non work were implicated.
Approach to RTW and RTW goal were also highly significant individual domain factors and together they were taken to reflect motivation to RTW. These two factors were shown to play a significant role in work disability and RTW, with the two contrasting approaches 'wait and see' and vague RTW goal and tenacious and clear RTW goal influencing respondents' engagement and disengagement along the disability timeline.

Together with the cognitive appraisal process it was proposed that these processes significantly influenced work disability and RTW (Lazarus & Folkman, 1984). Specifically, it was suggested that as the work disabled move along the work disability timeline they encounter events which they cognitively appraise and interpret to be negative or positive, and these come to represent their perceived barriers and enablers to RTW. They then make secondary appraisals of the events and determine the thoughts and actions appropriate to respond to them and these are represented as engagement or disengagement in the RTW process at that moment in time. As the long term sick decide on appropriate action, it is done via the mediating variable of their RTW goal, the clarity of which effects its ability to mediate. Clear goals were shown to mediate significant influence on the RTW process, be it engagement or disengagement, while vague goals mediated little influence.

Importantly, some respondents with a 'wait and see' approach and vague RTW goal who had disengaged were influenced to re engage with the RTW process. These respondents had experienced the enablers threat of half pay, support from the Federation, supportive encouragement from family to RTW, supportive GP, or a change in management or management approach and this external stimulus was sufficient to effect their re engagement in the RTW process. On the other hand, some respondents who remained disengaged did not experience enablers and it was speculated that one reason why they failed to RTW may be due to a lack of enablers, specifically external reinforcements. The findings suggested that external stimulus was the predominant trigger for those with a 'wait and see' approach and vague RTW goal in terms of re engaging in the RTW process. Conversely, internal stimulus appeared to be the principle trigger for those with a tenacious approach and clear RTW goal.

The influence of enablers appears to have a key role in re engaging the chronic work disabled who have a disengaged 'wait and see' approach to RTW and vague RTW
goal. These findings are promising and have implications for the development of RTW interventions. However, more research effort is needed to develop further understanding of the factors that influence the states of engagement/disengagement, especially in the very long term work disabled.

11.2.4.4 Other Key Findings

In addition to this thesis identifying key factors associated with the work disability experience, a number of other important findings were made. Firstly, the current findings support the notion of secondary as well as primary factors in the work disability experience (Loisel et al, 2005). From the perspective of the long term sick, for the most part, the emergence of secondary barriers flowed from other barriers such as 'lack of support and services from management and occupational health', 'wait times for diagnostics and treatments', and 'elapsed time and the concomitant change'. Each of these, it is suggested is modifiable. This implies that the development of associated secondary barriers may be preventable. Given the very protracted impact that psychosocial variables are known to have on LTSA, this finding provides further support for the need for a wholistic and integrated approach to RTW interventions.

Secondly, there was considerable variation in the prominence of different barriers within the three absence phases with most variability occurring between the sub acute phase on the one hand and the chronic and Not RTW phases on the other. This supports previous findings that different factors emerge at different points on the disability time line and reinforces the importance of using outcome measures of duration and phase specificity in addition to RTW outcome (Burton et al, 2003; Krause et al, 2001a).

Thirdly, to summarise the key findings along the disability timeline: those in the sub acute group experienced significantly fewer barriers than those who were off longer in the chronic and Not RTW groups; those in the Not RTW group experienced substantially fewer enablers than those who RTW; chronic psychological disability symptomology was in evidence within two weeks of being work disabled and was increasingly apparent along the time line; and relative to all other factors, psychosocial factors were most prevalent and profound in their impact on work disability. A prior longstanding history of MIH; a current diagnosis of MIH; self
doubt/loss of confidence; the presence of chronic disability symptoms; elapsed time off work and the concomitant changes; adoption of an unhelpful non work daily routine; a disengaged ‘wait and see’ approach to RTW and vague RTW goal; and lack of contact and support from the three primary organisational sources line management, Occupational Health and Personnel were shown to be major barriers to RTW from LTSA.

11.2.4.5 Processes Involved In Work Disability and RTW

Through the lens of the long term sick a number of processes were identified as being involved in work disability and RTW. Cognitive appraisal was determined to be the mechanism via which the long term sick appraise events, as barriers or enablers, and choose actions within their work disability experience (Lazarus & Folkman, 1984). In so doing it was further proposed that one reason why MIH may be such a significant barrier to RTW may be because its symptomology, in particular its ability to affect the way a person perceives or appraises events, may result in them making relatively more negative appraisals which in turn results in prolonged work disability.

Motivation to RTW, defined here as a combination of approach to RTW and RTW goal was found to play a significant role in work disability and RTW, influencing respondent’s engagement and disengagement along the disability timeline. The clarity of RTW goal was shown to be important, with clear goals mediating significant influence on the RTW process, be it engagement or disengagement, while vague goals mediated little influence. Together with the process of cognitive appraisal, approach to RTW and RTW goal were determined to be significant processes in work disability and RTW.

Two further significant processes in work disability and RTW were communicating relationships and occupational bonding (Kenny 1995a; 1996b; Bruyere and Shrey, 1991). The current findings indicate that from the perspective of the long term sick the central communicating relationships were with line management, Occupational Health and Personnel and the variability in the quality of these communicating relationships in respect of the level of activity that was engaged in and the nature of that engagement influenced work disability and RTW via the process of occupational bonding (Bruyere and Shrey, 1991). It was suggested that over time, as work disruption continued and the quality of the communicating relationships varied, if the
occupational bond weakened and fractured or was severed, respondents disengaged from the RTW process, and when it remained strong and respondents perceived they were valued they remained ‘bonded’ to the Anon Force, engaged in the RTW process. In light of this it was suggested that some long term sick, for example those with MIH symptomology may need a relatively stronger occupational bond to make them ‘feel’ valued and bonded. This would directly translate to a need for more and perhaps different management communication and support practices to ensure this is achieved.

In summary, the results of this thesis provide knowledge about key RTW processes, explaining how respondents perceived and responded to events as they progressed along the disability timeline. In particular, communicating relationships, occupational bonding, motivation to RTW and cognitive appraisal were all identified as processes that are significantly involved in work disability and RTW.

This thesis has demonstrated that through the lens of the work disabled the experience of LTSA can be conceptualised systemically, as three identifiable, coexisting domains; societal, organisational and individual, each populated with factors perceived by the long term sick to be associated with work disability and their effects, manifested in sickness absence duration and RTW outcome; thereby supporting the need for a wholistic and integrated approach to RTW interventions (Loisel et al, 2001a; Franche and Krause, 2002; Shaw et al, 2002). These key findings guided the development of a comprehensive set of RTW recommendations.

11.3 RECOMMENDATIONS FOR RTW POLICIES AND PRACTICE

What implications do the results of this thesis have for the management of work disability and RTW? The principal findings from this thesis clearly indicate that efforts should be targeted at promoting early RTW and preventing chronic disability. Perhaps the single most important factor to understand from the perspective of the long term sick is the enormous impact that elapsed time and psychosocial factors have on work disability and RTW and the swiftness with which secondary barriers can develop. Much of this may be preventable if the right RTW policies and practice are in place and thoroughly implemented at the right time.
11.3.1 Recommendations: Early, Comprehensive with a Psychosocial Focus

8. To provide recommendations for improving RTW policies and practice deriving from the findings and theoretical development.

The primary goal of managing work disability is safe and early return to work. This thesis has demonstrated support for the need for a wholistic and integrated approach to RTW interventions. There can be little doubt that the psychosocial variables shown here to be significant are important in long term work disability and medical and organisational personnel need to be concerned with early intervention in order to prevent costly effects (both economic and human productivity losses) of prolonged episodes of work disability. To achieve timely RTW and prevent the development of secondary barriers including chronic psychological symptomology, a set of guiding principles were derived from the findings and theoretical development. These were subsequently used to guide the development of a set of recommendations for improving RTW policies and practice.

11.3.1.1 Guiding Principles for Recommendations

In an effort to ensure that the recommendations are theoretically sound and evidence-based, the processes of communicating relationships, occupational bonding, motivation to RTW and cognitive appraisal, together with key findings were used to develop a set of guiding principles. These subsequently guided the development of the recommendations. The following principles were derived:

- The most effective measure against long term work disability, in particular the onset of chronic disability symptoms, appears to be a strong focus on early intervention. Based on current results, RTW interventions should be brought to the very front of the disability timeline and commence at onset of illness/injury rather than during the sub acute phase 4 to 12 weeks post illness/injury which has been reported to be the optimal time for intervention for reducing the chances of prolonged long term work disability and decreasing the chances of secondary, psychosocial changes (Waddell and Burton, 2000; Frank et al, 1996; Galizzi and Boden, 1996).

- The concept of 'occupational bonding' should be a fundamental principle for guiding RTW policies and practice. In other words, RTW policies and practice
must be aimed at ensuring that the long term sick see themselves as valued employees who remain ‘bonded’ or attached to the workplace. A number of barriers including 'elapsed time off work and the concomitant change' and 'change to daily routine' were made significantly worse through the isolation and disconnection from the Anon Force that the long term sick experienced. More positive communicating relationships could avert disengagement. To this end it is essential that central communicating relationships with the long term sick are high quality and are used to strengthen the employer-employee occupational bond, thereby helping to maintain the long term sick’s engagement in the RTW process.

- Long term sick need to hold a specific RTW goal. They also need to adopt an approach to RTW that is equally consistent with RTW.

11.3.1.2 Recommendations

Societal Domain

Doctor – Employer Relationships to be established for every work disabled individual who is off more than seven days. They should then also be assigned a case manager. Case managers should inform the work disabled at the initial meeting of the benefits of having an established relationship with the treating doctor and written permission should be obtained for this. This relationship is critical for informing the treating doctor about job demands, the availability of alternative duties, and details of any occupational support (Pransky et al, 2002; McDonald, 2002).

Organisational Domain

Organisational culture has important implications for the management of the long term sick. The values of senior management have been found to be highly influential because of the large part they play in ‘setting the tone’ of the corporate culture (Shoemaker et al, 1992). This emphasises the need for senior management to be involved in the setting and informing of policy on work disability management and their ongoing commitment to and involvement in its implementation. It also means that management up and down the line have an enormous contribution to make to ensure that the work disabled are managed in a way that is consistent with an expeditious RTW. The findings from this study suggest that there is much that can be done to achieve this. Firstly, by people in central communicating relationships relating to the
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Chapter 11 Conclusions and Recommendations

long term sick in a manner that is consistent with being committed to supporting and assisting them RTW. An approach that is friendly, encouraging and trusting was seen to be helpful. Secondly, by people in central communicating relationships demonstrating commitment to the established policies that are aimed at assisting the long term sick RTW, i.e. the AMP. There was considerable praise for different aspects of the AMP as a policy document; rather the problems were perceived to be in its lack of implementation. Supervisor support is critical (Feuerstein and Thebarge, 1991).

In House Occupational Health Unit with immediate access to local, private diagnostics and treatments. Upper wait time limits should be set at 7 days for ANY diagnostic and 21 days for surgical/treatment interventions. In the case of MIH, access to early aggressive treatment should help arrest its progress into the chronic phase (Polatin et al, 1993). To this end, promising results have come from a controlled trial in Holland which showed that early psychological interventions for common mental disorders, delivered through the workplace, improved health and reduced absence (Van der Klink, Blonk, Schene and van Dijk, 2003). The treatment comprised 4-5 sessions of cognitive behaviour therapy targeted at coping skills and increasing activity among those on sick leave for two weeks. The intervention reduced total time taken to RTW and recurrence at twelve months. In the case of musculoskeletal, early access to diagnostics such as MRI scanners and orthopaedic consultants, and treatments are essential. Early assessment of work disability via the case manager would facilitate these early interventions.

Work Disability Management Policies to be included in the performance management contracts of line management to ensure their diligent execution. In addition, there should be the requirement that the three key organisational pillars; line management, Occupational Health and Personnel submit written paragraphs on each work disabled person they are responsible for, outlining specifically what they have done including a summary of the verbal or face to face communication for that week, on a weekly basis. This should be linked to a performance management contract. In addition, line management should be required to have weekly verbal communication with work disabled and fortnightly face to face contact until a RTW has been achieved. Occupational health should be required to have weekly verbal communication with work disabled and fortnightly face to face contact until a RTW has
been achieved. Personnel should be required to have fortnightly verbal contact until a RTW has been achieved.

**Recuperative Duties** wherever possible to incorporate as much of the normal job as possible and work disabled should graduate to their full job as they are able. In all cases, work disabled should be accommodated back in to their pre morbid work environment and not into a separate work disability unit (Shrey and Breslin, 1992; Armstrong and Lyth, 1999). Early emphasis should also be on targeting and improving any specific job conditions that act as barriers to RTW (Holmgren and Ivanoff, 2004). The case manager would facilitate this in close liaison with all other stakeholders.

**Case Management** of work disabled using RTW specialists. A case manager should be appointed to anyone who remains off work for more than 7 days and introductory contact with the work disabled should be made within 2 days of referral followed by a face to face visit within 7 days. The essential elements of case management are needs assessment, service planning and co-ordination, monitoring and ongoing evaluation, and communication with all stakeholders (Weil and Karls, 1985). The case manager would focus on overcoming barriers to RTW. Ongoing weekly home visits should be a standard until full RTW. The case manager for each case would establish strong relationships with all stakeholders including the line manager, Occupational Health, Personnel, the Federation, and treating doctor.

**Individual Domain**

**RTW Plan** to be developed by the case manager in conjunction with the work disabled. It would document the specific RTW goal and sub goals for achieving this together with targets to facilitate a timely RTW. The plan would identify what barriers are likely to prevent a RTW and what actions are needed to overcome these barriers. The RTW plan would serve as the key instrument in the coordination of RTW activities for work disabled (Shrey and Breslin, 1992). The plan would develop out of the initial visit with the work disabled and would be modified as circumstances changed.

**Routine Screening** to be done on all work disabled who remain off for more than seven days for evidence of MIH or psychological symptomology past or present. This should be repeated by the case manager at weekly meetings with the work disabled.
While some evidence suggests that the window for such screening is between one to six months, the results of this thesis inform the utility of screening earlier, at onset (Burton et al, 2003). The use of screening would provide the basis for action. It would be used to identify those at higher risk who needed more attention and resources.

**Detailed Psychosocial Assessments** to be conducted on all chronic work disabled and be used to inform targeted intervention. One essential intervention for all chronic work disabled should be problem based rehabilitation (Ekberg, 1995). The aim would be for case managers to work with work disabled and help them develop constructive strategies to enable them to manage themselves and their situation within the RTW process with a clear RTW goal. This method has shown promising results in contributing to work disabled recovery and RTW, particularly when the more medically oriented treatments have been concluded (Medin et al, 2003).

**Work Disability Education** to commence at the first home visit and include information on the psychological aspects of injury and the importance of establishing a clear RTW goal (Margoshes, 1998; Schonstein et al, 2003). The education should also provide information on the effects of prolonged work disability on the daily work / lifestyle routine and the effects of increasing elapsed time off work and the concomitant changes. Basic cognitive reframing skills should be taught to work disabled to help them: more realistically appraise and label events; and manage and challenge the maladaptive psychological changes that can develop within weeks of work absence commencing, particularly the limiting thought patterns (Beck, 1967).

**Social Support** in the work disabled’s personal and organisational network to be subject to ongoing assessment by the case manager. Targeted interventions to be used when perceived to be inadequate (Kenny, 1996b). The case manager would provide a degree of support through their regular contacts and visits.

**Illness/injury** profiles vary significantly across different occupation types and accordingly there is a clear need to take account of this factor in any RTW initiative. Understanding the diagnostic and temporal characteristics of particular illness/injury risk factors has important implications for remedial actions. It is able to inform on the optimal type and timing of interventions required to optimise the likelihood of a
successful RTW. This being the case, there is a limited window of opportunity in which to target the specific illness/injury with appropriate RTW initiatives if they are to delivery maximum benefits. That illness/injury has been found here to be most prevalent in the sub acute phase of the disability timeline suggests that irrespective of diagnosis, targeted medical and allied RTW resources need to be provided within this same timeframe to maximise the likelihood of realising their benefits.

11.4 LIMITATIONS AND STRENGTHS OF THE RESEARCH

11.4.1 Limitations

This thesis should be considered in light of certain limitations. Study One was limited by the relative paucity of information that was available in the administrative data source. The dataset contained only frequency data and there were several personal characteristics not available to the researcher that have been identified as factors associated with LTSA and RTW outcomes, particularly age, marital status, education and whether pay cuts were instituted at the 6 month absence mark. There was also a lack of information contained in the dataset, particularly about illness/injury. While diagnosis was captured, no other medical information was. There was no data on injury severity, treatments provided, ongoing medical status or changes in diagnosis to show secondary conditions.

A second limitation was that the data were drawn from a single employer and even though it has a relatively diverse set of jobs, a large proportion of its staff are engaged in a specialist function and that cannot be considered representative of the remainder of the work force, especially in regard to job roles. As a result, despite the large sample size, the ability to generalise results from this study to work disabled people is limited, suggesting a need for replication in other large generalist organisations.

Third, the data were from an administrative database and therefore subject to a certain amount of entry errors, miscoding, and misclassification (Franklin et al, 1991).

A final limitation is that the independent variables measured individual domain characteristics and only at the time of illness/injury. The effects of other domain factors could not be estimated within the Study One design.
Study Two was limited by the respondent sample being self selecting. They were enrolled through a process of recruitment and informed consent which may have produced selection bias. Also, the response rate to the invitation to participate was relatively low and may also have led to some selection bias.

A further limitation of Study Two was the use of a retrospective cross sectional design. A prospective design with multiple points for collection of outcome data would have been preferable. Respondent recall, particularly of earlier events, may have been influenced by the significant passage of time between absenting work and being interviewed. Also, given that some outcomes were time-varying, such as illness/injury, it would have been optimal to measure these repeatedly which would have permitted more exacting insight into the extent to which RTW corresponds to functional recovery.

In addition, factors were assessed by self report. These reports are subject to recall error and bias effects. However, in order to prevent the possibility of common method bias, which may occur when predictor and outcome variables are based on self report, administrative rather than self reported outcomes were used (Dasinger, Krause, Deegan, Brand and Rudolph, 1999).

A further limitation that emerged from the researcher reflecting on possible influences on the inquiry related to the inhibiting effect that the researcher's own assumptions and behaviour may have had as a chartered clinical psychologist. In the qualitative interview, an open-ended question regarding a respondent's general medical history was followed by specific questions about any history of mental ill health. It is possible that the use of this rather clinical language may have made some respondents reluctant to share any history of psychological as opposed to physical ailment which may have resulted in an under reporting of mental health issues. The researcher was however aware of the need to be open and sensitive to how one's position can both enhance and inhibit the inquiry (Stake, 1995).

Finally, the relatively small number of respondents included in Study Two leads to a reduction in the power of the analyses and decreases the possibility of generalisation to other work disabled individuals. The collection of data from a larger pool of participants would have allowed this to be addressed.
11.4.2 Strengths

Notwithstanding these limitations, a number of steps were undertaken to offset them. A strength of this thesis was the use of a mixed qualitative and quantitative research methods design. Recent criticism about the domination of quantitative research methods in the RTW field has highlighted the absence of the work disability experience from the viewpoint of work disabled themselves (Shaw et al, 2002; Krause et al 2001a). The mixed methods approach allowed very different types of information to be derived. The large quantitative study identified a number of statistically significant, quantifiable variables, while the series of in depth interviews in the second study gave access to the personal meaning that the long term sick placed on their work disability experiences. The mixed methods approach built a wider and richer picture of barriers and enablers to RTW from LTSA than would have been possible using only one method.

A further strength was the inclusion of the police office staff in addition to considering police officers. This allowed for comparative analyses to be undertaken on these two diverse occupational groupings. The results support the generalisability of findings to the extent that both staff groups had equivalent rates of LTSA, RTW and absence duration. It is unclear, however, how possible differences in the organisational culture of the Anon Force and other generalist business organisations might influence the relationship between the factors studied here and duration of absence and RTW outcomes. Further RTW research in generalist business organisations is needed.

In addition, in Study One a very significant database was used for the quantitative study to ensure there were sufficient numbers for adequate power in analyses. Likewise for Study Two a large sample size was used for the qualitative study. A final strength was the use of multiple outcome measures which allowed for more precise analysis of the data from both studies. The use of absence phase specificity facilitated the identification of factors that would otherwise have gone unobserved.

11.5 FUTURE DIRECTIONS

This thesis has answered a number of questions relating to work disability and RTW. It has also exposed a number of knowledge gaps. In particular:

- What is the role of a prior long standing history of MIH on current work disability?
• Does MIH prolong work disability via increased negative cognitive appraisals of events?
• How can line management be encouraged to actively participate in the management of work disabled?
• How can the communicating relationships between the three organisational pillars Occupational Health, line management and Personnel and the long term sick be improved?
• What enablers can re engage disengaged work disabled with the RTW process?
• What is the relationship between different job roles, type of illness/injury and RTW?

It would be useful to investigate these questions empirically in some large-scale mixed methods studies. It would also be useful to empirically validate the conceptual framework developed in this thesis and investigate the relative importance of the populated factors in different contexts. These investigations would contribute to the strengthening of the conceptual framework and would provide further valid evidence upon which to develop interventions that would circumvent long term work disability.

Methodological enhancements in future work disability and RTW research should include using the lower definitional levels of ICD-10 categories of illness; outcome measures that include CDL’s, RTW outcome and disability phase specificity; prospective designs with follow up measurement intervals of 3, 6 and 12 months; and concurrent measures of self report data from medical and personnel records and supervisor reports. In addition, many studies in the RTW field have failed to assess predictor variables that are potentially important and have been shown here to be significant in RTW from LTSA. It is recommended that future studies include measures of illness/injury, history of prior illness/injury and work disability, psychological distress, and expectation of recovery and RTW goal.

11.6 CONCLUDING OBSERVATIONS

This thesis set out to answer the research question 'what are the barriers and enablers to RTW from LTSA from the perspective of the long term sick and the processes involved in work disability and RTW'. It was proposed that work disability and RTW are a developmental phenomenon, best viewed from the perspective of the long term sick. Drawing on a systemic paradigm, a conceptual framework which
reflects the perspective of the long term sick was developed. It was proposed that through this lens, the work disability experience or LTSA can be conceptualised as three identifiable coexisting domains; individual, organisational and societal, each populated with factors perceived by the long term sick to be associated with the work disability experience and their effects, manifested in sickness absence duration and RTW outcome; thereby supporting the need for a wholistic and integrated approach to RTW interventions. It is through the perceptual lens of the long term sick that it was proposed to explain the processes involved in work disability and RTW.

The results of this thesis provide an understanding of the complexity of being long term work disabled from their perspective. They show that from this perspective the experience of LTSA can be conceptualised systemically, as three identifiable, coexisting domains; societal, organisational and individual. They also provide significant insight into the factors that populate each of the three identified domains, the interplay between domain factors and the emergence of secondary barriers. The results also provide knowledge about key RTW processes, explaining how respondents perceived and responded to events as they progressed along the disability timeline, finding or not finding a way back to work. In particular, communicating relationships, occupational bonding, motivation to RTW and cognitive appraisal were all identified as processes that are significantly involved in work disability and RTW.

The results of this thesis have advanced the understanding of work disability and RTW from the perspective of the long term sick. New insights into the variations in RTW behaviours have been illuminated through the detailed examination of the LTSA experiences of the work disabled. In total, 16 barriers comprising one in the societal domain, eight in the organisational domain, and seven in the individual domain; and 9 enablers comprising one in the societal domain, five in the organisational domain, and three in the individual domain were identified. Organisational domain barriers and individual domain enablers dominated the experiences of respondents in the subacute RTW group; organisational domain barriers, and to a lesser extent individual domain barriers and enablers dominated the experiences of respondents in the chronic RTW group; while individual domain barriers, especially those psychological, and to a lesser extent organisational domain barriers dominated the experiences of respondents in the Not RTW group. For this latter group, there was speculation that the absence of enablers to act as external stimuli to RTW may have accounted at
least in part for the failure of some to re engage with the RTW process and RTW.

In recent years there has been increasing attention placed on the role of psychosocial factors in work disability and it is generally agreed that they are stronger predictors of chronic work disability than biomedical factors or physical characteristics of work (Vowles et al, 2004; Burton et al 2003). In the current thesis, compelling evidence has been presented that supports the primary position of psychosocial factors as barriers to RTW. A prior longstanding history of MIH; a current diagnosis of MIH; self doubt/loss of confidence; the presence of chronic disability symptoms; elapsed time off work and the concomitant changes; adoption of an unhelpful non work daily routine; a ‘wait and see’ approach to RTW and vague RTW goal; and lack of contact and support from the three primary organisational sources line management, Occupational Health and Personnel were shown to be major barriers to RTW from LTSA. The resultant outcome of much of this, extended time off work, was also confirmed as a major barrier to RTW.

The evidence from this thesis suggests there is a limited window of opportunity in which to target remedial resources if they are to deliver maximum benefits and minimise the likelihood of the onset of chronic disability symptoms. Comprehensive RTW interventions should be commenced at time of injury/illness rather than being introduced during the sub acute phase at 4 to 12 weeks, which for some of the respondents in this research would have been after the onset of secondary psychological symptomology (Burton et al, 2003).

The current findings suggest that the conceptual framework developed for this thesis may be a promising approach to understanding the work disability experience from the perspective of the long term sick. This thesis has demonstrated that work disability and RTW can be conceptualised systemically, as three co existing domains and each must be taken into account when assisting the work disabled RTW. Ultimately, exploration of the perspective of the long term sick is needed to promote a better understanding of the multidimensional nature of work disability and RTW and to inform how the long term sick and all involved stakeholders can better manage LTSA and achieve successful RTW outcomes.
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Appendix 1 provides a comprehensive range of statistics detailing the scale of the growing problem of long term sickness absence in the UK labour market. Section 1 reviews Government and Confederation of British Industry (CBI) statistics on the prevalence and working days lost to long term sickness absence in the UK by individual characteristics, age and gender, country and region, geographical region, socio-economic groupings, industrial sectors, occupational groupings, and type of illness. Sections 2 and 3 examine in detail musculo-skeletal disorders and mental ill health in light of their diagnostic prominence in cases of long term sickness absence. Section 4 considers the trends in long term sickness absence in the UK labour market.

Overall Picture of Long Term Sickness Absence in the UK

No single source of information is available in the UK on the nature and full extent of long term sickness absence (LTSA) among the UK working population. Two main surveys that provide evidence on the overall scale and broad sectoral patterns of UK sickness absence are the Labour Force Survey (LFS) and the Confederation of British Industry (CBI) survey.

The LFS is a survey of around 60,000 private households throughout Great Britain. Interviewers from the Office for National Statistics ask each household member a range of questions on topics including household characteristics, demographic, education and employment variables. A systematic random sample design is used for the survey and it is therefore representative of the whole of Great Britain. The survey is conducted on a quarterly basis and since 1993/94 the Health and Safety Executive (HSE) has commissioned a module of questions to be placed in the winter quarter to gain a view of work related illness based on individuals' perceptions. The survey only records absence episodes that are perceived to be the result of illnesses or health problems that have been caused or made worse by work. It limits reportable absences to those of four or more consecutive days duration. By restricting the range of reportable sickness absence episodes the survey effectively avoids counting a large proportion of absences that are non work related such as the one or two day absences that are frequently taken for colds, allergies, childcare and appointments. The surveys are known as SWI90, SWI95, SWI98/99 and SWI01/02 (HSE, 2003/5).
The CBI is a biennial postal survey that is sent to private and public sector employers. Survey respondents provide a representative sample of the UK workforce when measured by region, sector and company size. The survey asks respondents to report on all absence and labour turnover. As such, the CBI survey measures all absences from work irrespective of cause\(^1\), thus capturing the full range of absence episodes both in terms of length and causality. Compared to the LFS survey, this results in the CBI survey recording significantly more time lost, the majority of which is related to short term rather than long term absence episodes (CBI, 2004). In 2001 for example, the CBI reported that approximately 192 000 000 days were lost due to workplace absence compared to 32.9 million working days lost according to the SWI01/02, of which 95 percent was attributed to short term episodes.

These two surveys in conjunction with other government data such as that published by the Cabinet Office which details a comprehensive analysis of the sickness absence profiles of the UK Civil Service (Cabinet Office, 2004), will be analysed in order to develop a picture of the overall scale of long term sickness absence within the UK working population, the major types of health outcomes involved and the occupations and industries associated with them. Inevitably, analyses at relatively high levels of aggregation disguise important trends that can emerge when investigation is focussed more acutely. Accordingly, differences in absence levels across geographical regions, socio-economic groupings, industrial sectors, occupational groupings, gender, age, and type of illness are examined. Because much of the sickness absence data that is in the public domain does not allow for differentiation between long and short term episodes of sickness absence, broad trends in sickness absence in each of the categories will be considered first. This will be followed by comment on length of sickness absence episodes where possible.

A1.1.1 Prevalence and Incidence

A1.1.1.1 Individual Characteristics

In terms of estimates of illness prevalence (long standing as well as new cases), associated rates and incidence estimates (new cases) in the United Kingdom, the Labour Force Survey offers the most inclusive and broadly based indications of work-related ill health. The latest LFS (SWI01/02) sample surveyed over 98,000 adults in

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\(^1\) The CBI 'cause of absence' categories include general sickness (physical and mental), personal problems, lack of...
Great Britain who had ever worked, asking them whether they had any illnesses or health problems in the 12 months before the survey which had been caused or made worse by their work (current or past). An estimated 2.3 million individuals in the UK reported suffering from a workplace illness that they believed was caused or made worse by their current or past work. Of these, approximately eighty per cent of people suffered from one work related illness, while twenty per cent of people had more than one work related illness. In cases of multiple illnesses, analysis is restricted to the most serious illness.

A1.1.1.2 Age and Gender
The SWI01/02 used seven age bands\(^2\) to group people by age and within these, the overall prevalence rate for males was statistically significantly higher than for females (HSE, 2003). In particular, male rates were statistically significantly higher than female rates in the 35-44 year age band and all older age bands. The prevalence rate for males was highest in the 55-64 year age band and lowest in the 16-24 year age band. For females, the 55-59 and 45-54 age bands carried the highest rates of work related illness and both were statistically significantly higher than the rates in each of the other age bands and for females as a whole.

Incidence rates for males and females were not significantly different for 2001/2002. Males aged 35-44 and females aged 45-54 carried the highest incidence-rates and both were statistically significantly higher than the overall gender specific rates (HSE, 2003).

A1.1.1.3 Country and Region
According to the SWI01/02, Wales had a statistically significantly higher prevalence rate than Great Britain and England, while Scotland was statistically significantly lower than the rate for Great Britain and England as a whole (HSE, 2003). Within England, the highest prevalence rates were Yorkshire and the Humber, the South West and the West Midlands. All three regions had prevalence rates that were statistically significantly higher than the rates for England and Great Britain as a whole. The East had the lowest prevalence rate, again being significantly lower than England as a whole (HSE, 2003).

\(^2\) Age bands: 16-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+ years.
A1.1.1.4 Socio-economic Groupings

The LFS codes jobs by eight socio-economic groups (1 being the highest). About one third of workers suffering from an illness attributed to their current work were classified as lower managerial and professional (socio-economic group 2). This group along with those classified as lower supervisory and technical (socio-economic group 5) carried both the highest prevalence and incidence rates. Both rates were statistically significantly higher than for all other categories. At the other end of the scale, routine occupations (socio-economic group 7) and semi-routine occupations carried the lowest prevalence and incidence rates. Both rates were statistically significantly lower than for all other categories (HSE, 2003).

CBI (2001) findings reveal that while there has been a consistent pattern of falling absence among manual employees since 1989, absence rates among manual employees remain significantly higher than among non manual employees (CBI, 2001). However, by category, the CBI survey found that absence levels were highest among semi skilled occupations in the transport and communication, and construction sectors, and lowest in the professional services sector (lawyers, medical etc.). This inversely proportional relationship between occupational level and sickness absence is also apparent in recent Civil Service data. This data show that higher graded staff were more likely to have no recorded absence during the year and on average had overall less absence. The mean working days sickness absence rate per annum for the highest and lowest grades was 5.1 compared to 13.3 (Cabinet Office, 2004). Considering length of sickness absence episodes, again it was inversely related to grade. Highly graded staff were significantly more likely to have no days off compared to lower graded staff and as the length of absence increased the proportion attributable to higher graded staff decreased. Looking specifically at episodes of long term sickness absence (20+ days), the two most senior grades had significantly fewer episodes than more junior graded staff, and the two most junior grades were responsible for over 60 per cent of these episodes.

A1.1.1.5 Industrial Sector

Broad sectoral analyses from the Industrial Society and the CBI indicate that sickness absence rates in the private sector are significantly lower than those in the public sector (CBI, 2001, 2003; Stafford, 2000). While no figures are available that allow for direct comparisons between these two industrial sectors with respect to only long term
sickness absence, data from the Cabinet Office and the CBI show that for 2000, the absence rate per employee in the private sector was 7.2 days compared to 10.2 days in the public sector. On the available evidence, the public sector taken as a whole has about a third more sickness absence on average per employee than the private sector.

Within these broad figures there are parts of the public sector that compare very favourably with typical private sector organisations. For example, the Office of Fair Trading, the Cabinet Office, Department of Environment, H M Treasury and the Food Standards Agency, have all reported less mean working days absence compared to the private sector average (Cabinet Office, 2002). However, other areas such as the Department of Education and Skills, the Department of Transport, Local Government and Regions and the Crown Prosecution Service compare less well, with all reporting mean absence days per staff year above the government average.

Looking industry wide, the industrial groupings of agriculture, hunting, forestry and fishing, and public administration and defence recorded the highest estimated prevalence rates of self reported work related illness in SWI01/02 (HSE, 2003). These industries were followed by construction, energy and water supply, education, and health and social work (HSE 2002). At the other end of the scale, hotels and restaurants, wholesale and retail trade and real estate sectors carried below average rates.

A1.1.1.6 Occupational Groupings
SWI01/02 data revealed that the occupational groups with the highest estimated prevalence rates of self reported work related illness, at between one and a half and two times the overall average, included protective service occupations (e.g. police officers, sergeants and below, fire officers, and prison officers), health and social welfare associate professionals (e.g. nurses), skilled construction and building trades, and teaching and research professionals (HSE, 2003). Other groups with rates that were also statistically significantly higher than the average for all occupations were transport and mobile machine drivers and operatives, process plant operatives and skilled metal and electrical trades.

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3 Includes protective service occupations (e.g. police officers)
A1.1.1.7 Type of Illness
Musculo-skeletal disorders (bone, joint or muscle problems) were by far the most commonly reported work-related illnesses in SWI01/02, affecting an estimated 1,126,000 people. Stress, depression or anxiety was the second most commonly reported illness, affecting an estimated 563,000 people. This was followed by respiratory problems (168,000 people); and hearing problems (87,000 people). Just under seventy five per cent of the total number of people suffering a work related illness in 2001/2002 were suffering from a musculo-skeletal disorder or stress, depression or anxiety (HSE, 2003).

Civil Service data for 2002 show that respiratory followed by digestive problems and nervous system disorders (likely to be colds, upset stomach and headaches) were by far the most commonly reported illnesses. Together they accounted for over half of all sickness absence episodes and over two thirds of short term absences (1-5 days) (CBI, 2003; Cabinet Office, 2002). In contrast, musculo-skeletal disorders accounted for only 6.7% (up from 6.4% in 2001) of all sickness absence episodes, mental ill health 4.9%, (up from 4.4% in 2001), and symptoms ill-defined 10.2% (up from 6.1% in 2001) of episodes. However as a proportion of long term sickness absence episodes, collectively they accounted for 64.4 per cent. Mental ill health problems represented 32 per cent, musculo-skeletal problems 10.7 per cent, and symptoms ill-defined 21.7 per cent. The fact that no clear diagnostic information is available in relation to over 21.7 per cent of absences of 20 days or more duration is concerning and limits the opportunities for accurately profiling the main causes of long-term absence (Cabinet Office, 2003).

CBI data offer far less detailed information about specific causes of absence. According to the 2003 survey, general sickness (physical and mental) was the major cause of absence followed by home and family problems, paid leave absence seen as entitlement, and then personal problems. The CBI results also reported that 15 per cent of absence was not genuine and attributed this to employees pulling the occasional ‘sickie’. This equates to 28,800,000 days or £1.75 billion cost to British industry (CBI, 2003).

A1.1.1.8 Type of Illness by Gender
The diseases for which male prevalence rates were statistically significantly higher
than rates for females were musculo-skeletal disorders (mainly affecting the back and lower limbs), respiratory problems and heart disease and other circulatory system conditions. For females, the incidence rate for stress, depression or anxiety was statistically significantly higher than the male rate (HSE, 2003).

A1.1.2 Working Days Lost

A1.1.2.1 Individual Characteristics

According to SWI01/02 an estimated 32.9 million working days were lost to work related ill health in the previous 12 months, the majority of which was taken by a relatively small group. One third of sufferers took no time off work in the previous 12 months because of their condition. However, over one quarter took at least 4 weeks off work, another ten per cent took more than 6 months off work, and one in forty people took at least nine months off work (HSE, 2003; Trades Union Congress, 2000). The average time taken in sick leave by people with a work related condition was 22.9 days for the 12 month period.

Civil Service data show a similar pattern. Of the total time lost to sickness absence in 2002 (4 903 705 days, up 10% on 1999), short term absences (1-5 days) accounted for nearly 80 per cent of all absence episodes but represented just 9.4 per cent of the total time lost. In contrast, long term sickness absences (20+ days) accounted for only 5.7 per cent (up from 3.9% in 1999) of all recorded sickness absence episodes but represented a disproportionate 70.1 per cent of the total time lost (up from 48.9% in 1999) (Cabinet Office, 2003). While nearly 70 per cent of civil staff took five days or less, with more than a third taking no recorded sickness absence during the whole year, over one tenth (10.6%, up from 8.5% in 1999) of staff had at least one episode of long term sickness absence.

Data from the NHS reveal a similar picture. A study of absence in an NHS hospital found that LTSA episodes accounted for more than 50 per cent of total days lost among professional staff, with this figure rising to 75 per cent in the case of domestic ancillaries (Whitston and Edwards, 1990).

The CBI survey (2001; 2003) develops the picture of working days lost to sickness absence in the UK further. The CBI estimated that, based on 24.678 million people in
employment (drawn from the Labour Market Trends issue Jan 2001), 192 million days were lost to workplace absence in 2000\(^4\) (CBI, 2001). This represents an absence rate of 3.4 per cent.

Per employee it represents an average 7.8 working days lost per year to sickness absence. The CBI survey asked employers what percentage of absence was short term or long term. Approximately 95 per cent of absence episodes were reportedly short term, while the remaining 5 per cent were long term (CBI, 2003). In terms of time lost, over one third was attributed to long term episodes, which equates to approximately seventy two million days.

A1.1.2.2 Age and Gender
According to SWI01/02, males took more time off than females, however mean days lost per worker were similar and not statistically significantly different. For males the estimated average days lost per worker generally increased with age. For those 55+, this was statistically significantly higher than for all other age groups. Just less than one third of the total number of working days lost were accounted for by this age group. No clear pattern emerged for females, although mean days lost in the youngest age band, 16-24, was statistically significantly lower than all other age groups (HSE, 2003).

In contrast, Civil Service data show that female employees were less likely than male staff to have no recorded absences and had a higher rate of sickness absence compared to male staff, characterised by both higher mean numbers of episodes and days lost per annum. Moreover, females were more likely to experience absences of greater than one month’s duration compared to males (Cabinet Office, 2002).

A1.1.2.3 Industrial Sector
The industries carrying the highest mean number of days lost per worker were extractive and utility supply industries, public administration and defence and health and social work (HSE 2003). As well as being statistically significantly higher than the corresponding rate for all industries, the rates were also higher than those for other individual industry rates.

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\(^4\) CBI data includes ALL time absent from work irrespective of cause, while the LFS includes only those absences that relate to illness and ill health that are perceived to be caused or made worse by work.
A1.1.2.4 Occupational Groupings
Analysis of the average time off per worker by occupation showed that protective service occupations followed by health and social welfare associate professionals both carried rates that were statistically significantly higher than the rate for all occupations. At the other end of the scale, culture, media and sports occupations and secretarial and related occupations all carried rates that were statistically significantly lower than the rate for all occupations (HSE, 2003).

A1.1.2.5 Type of Illness
SWI01/02 data reveal that stress, depression or anxiety followed by musculo-skeletal disorders accounted for the majority of working days lost: an estimated 13.4 (40.7% of total days lost) million and 12.3 (37% of total days lost) million days off work respectively. The average annual days lost per case for stress, depression or anxiety was 29.2 days, which was statistically significantly higher than for all other work-related illness. Average annual days lost per case for musculo-skeletal problems was 19.4 days (HSE, 2003).

Civil Service data tell a similar story. Stress, depression or anxiety followed by symptoms ill-defined and musculo-skeletal disorders accounted for over eighty per cent of the working days lost to long term sickness absence (Cabinet Office, 2003).

A.2 Musculo-Skeletal Disorders (Bone Joint or Muscle Problems)
The next two sections provide a detailed exploration of trends in musculo-skeletal and stress related disorders given that together, these two principal diagnostic categories account for over three quarters of the total time lost to long term sickness absence in the UK. SWI01/02 is the primary source of data.

A1.2.1 Prevalence and Incidence
A1.2.1.1 Individual Characteristics
In 2001/2002 an estimated 1 126 000 people in the UK reported suffering from a musculo-skeletal disorder that was caused or made worse by work. Musculo-skeletal disorders were by far the most commonly reported work related illness for this period. Of those suffering from a musculo-skeletal disorder, half suffered from a disorder mainly affecting the back, just over one third mainly affecting upper limbs or neck and
just under one fifth mainly affecting lower limbs (HSE, 2003).

A1.2.1.2 Age and Gender
The prevalence rate for males was statistically significantly higher than the corresponding rate for females. For both males and females, the oldest working age group (55-64 years for males and 55-59 years for females) carried the highest prevalence rate. At the other end of the scale, the youngest age group (16-24 years) carried the lowest prevalence rates for both males and females (HSE, 2003).

A1.2.1.3 Country and region
The rate for people living in Scotland who suffered a work related musculo-skeletal disorder was statistically significantly lower than the rate for people living in England, as well as the overall rate for the UK. Within England the highest prevalence rates were for people living in Yorkshire and the Humber, and the South West. Both prevalence rates were statistically significantly higher than the rates for England and Great Britain as a whole. The rate for London was statistically significantly lower than that England and the UK as a whole (HSE, 2003).

A1.2.1.4 Socio-economic Groupings
Individuals classified as lower supervisory and technical (socio-economic group 5) carried the highest incidence rate of musculo-skeletal disorders. This was statistically significantly higher than the overall rate and the corresponding rate for higher managerial and professional (socio-economic group 1), which carried the lowest rate and was statistically significantly lower than the overall rate. Higher managerial and professional (socio-economic group 1) also carried the lowest prevalence rate (HSE, 2003).

A1.2.1.5 Industrial Sector
Industries with the highest prevalence rates of self reported musculo-skeletal disorders caused or made worse by work were agriculture, hunting, forestry and fishing, construction, health and social work, and manufacturing. All rates were statistically significantly higher that the rate for all industries. At the other end of the scale, financial intermediation, real estate, hotels and restaurants, and retail trade carried the lowest prevalence rates. All rates were statistically significantly lower that the rate for all industries (HSE, 2003).
A1.2.1.6 Occupational Groupings
The occupations with the highest incidence rates for musculo-skeletal disorders were skilled construction and building trades, protective service occupations, health and social welfare associate professionals, and skilled agricultural trades. All rates were statistically significantly higher than the rate for all occupations. At the other end of the scale, corporate managers, business and public service professionals, administrative occupations, and secretarial and related occupations carried the lowest prevalence rates. All rates were statistically significantly lower that the rate for all occupations (HSE, 2003).

A1.2.2 Working Days Lost

A1.2.2.1 Individual Characteristics
In 2001/2002 musculo-skeletal disorders accounted for the loss of an estimated 12.3 million working days. For people who worked in the 2001/2002 period and suffered a work related musculo-skeletal disorder in that period, over forty per cent took no time off in that 12 month period. On average, each person suffering from a work related musculo-skeletal disorder in that period who did take time off, took an estimated 19.4 days off work. For conditions mainly affecting the back the rate was 18.9 days, whilst the rates for conditions mainly affecting the upper limbs or neck and mainly affecting the lower limbs were 17.8 days and 24.7 days respectively.

A1.2.2.2 Age and Gender
SWI01/02 figures show that an estimated 8.4 million working days lost (68% of the total days lost) were accounted for by males. However, in terms of mean days lost per person the rates for males and females were not significantly different. For both males and females, the rate for the oldest age group (45+) was statistically significantly higher than the youngest (16-34 years). For males, the rate for those aged 45+ years was also statistically significantly higher than the rate for the 35-44 year age band (HSE, 2003).

A1.2.2.3 Country and Region
The regional distribution of the estimated number of days lost to work related musculo-skeletal disorders show that rates per person were not significantly different across England, Wales and Scotland. London was the only region that carried a rate
that was significantly lower than the rate for England. People living in Yorkshire and the Humber, and the North West accounted for forty per cent of the estimated days lost to work related musculo-skeletal disorders.

A1.2.2.4 Industrial Sector
SWI01/02 data show that only construction carried a rate statistically significantly higher than the rate for all industries. However, the rate for construction along with those for manufacturing, and health and social work were higher than the wholesale and retail trade sector, which was the only industry sector that carried a rate statistically significantly lower than the rate for all industries.

A1.2.2.5 Occupational Groupings
Occupational groups carrying rates for days lost per person that were statistically significantly higher than the rate corresponding to all occupations were elementary occupations (e.g. farm worker, labourers, postal workers), process, plant and machine operatives, and skilled trade occupations. These three groups also carried rates that were statistically significantly higher than the rates for managers and senior officials, professional occupations and administrative and secretarial occupations.

A1.3 Mental ill health

A1.3.1 Prevalence and Incidence

A1.3.1.1 Individual Characteristics
Self reported work related stress, depression or anxiety was the second most common type of work related illness in 2001/2002, affecting an estimated 563,000 people in the UK (HSE, 2003).

A1.3.1.2 Age and Gender
SWI01/02 data show that similar numbers of males and females were affected by work related stress, depression or anxiety. For both males and females, the 45-54 and 35-44 age bands carried the highest prevalence rates, and the retirement age bands (65+ years for males and 60+ years for females) and the youngest age bands carried the lowest. All these rates were significantly different from the corresponding overall rates for each gender, and the rates for the retirement age bands were also lower than any other gender-specific age band (HSE, 2003).
Although prevalence estimates were similar for males and females, the incidence rate for females who had worked in the previous 12 months was statistically significantly higher than the corresponding rate for males. For both males and females, the highest incidence rate was amongst those in the 35-44 age band (HSE, 2003).

A1.3.1.3 Country and Region
For the 2001/2002 period, the estimated prevalence rate for Scotland was statistically significantly lower than the rate for both England and the UK. Within England, the only region with a rate that was statistically significantly lower than the rate for England was the North East. The rate for London was statistically significantly higher than the rate for the UK.

A1.3.1.4 Socio-economic Groupings
SWI01/02 figures reveal that of the people who reported suffering from work related stress, depression or anxiety, just over forty per cent were classed as belonging to the lower managerial and professional group (socio-economic group 2). This group also carried the highest prevalence rate (statistically significantly higher than rates for each of the other groups and all current workers). Routine occupations carried the lowest rate, which was statistically significantly lower than the rate for all socio-economic groups (HSE, 2003).

A1.3.1.5 Industrial Sector
For the 2001/2002 period, public administration and defence, followed by education, financial intermediation, and health and social work carried the highest rates of people who reported suffering from work related stress, depression or anxiety. All four had rates that were statistically significantly higher than the rate for all industries. At the other end of the scale, rates for construction, wholesale and retail trade, and manufacturing were lowest. The rates for these industries were statistically significantly lower than the rate for all industries.

A1.3.1.6 Occupational Groupings
For the 2001/2002 period, occupational groupings that carried the highest prevalence rates were professional occupations, associate professional and technical occupations, and managers and senior officials. All three rates were statistically significantly higher than the average rate for all occupations (HSE, 2003).
More detailed analysis of the occupational groupings showed that protective service occupations followed by teaching and research professionals carried rates that were statistically significantly higher than the overall rate. Other groups that had relatively high rates included health and social welfare, and business and public service associate professionals. Within these occupational groupings, nursery, primary and secondary teaching professionals, police (sergeants and below), fire service officers, prison service officers, and public service and other associate professional and health associate professionals, especially nurses, carried rates that were statistically significantly higher than the rate for all occupations (HSE, 2003).

A1.3.2 Working Days Lost

A1.3.2.1 Individual Characteristics
In 2001/2002, stress, depression or anxiety accounted for the loss of an estimated 13.4 million working days. For people who worked in the 2001/2002 period and suffered from work related stress, depression or anxiety in that period, approximately thirty per cent took no time off in that 12 month period on account of their complaint. However, one in forty people took 9 months or more (at least 198 full day equivalent days) off work. On average, each person suffering from work related stress, depression or anxiety in that period who did take time off, took an estimated 29.2 days off work.

A1.3.2.2 Age and Gender
SWI01/02 figures show that the estimated total number of days lost for males and females was of a similar order. However, in terms of mean days lost per person, the rate for females was statistically significantly higher than the corresponding rate for males. For both males and females, the rate for the youngest age band (16-24 years) was statistically significantly lower than the corresponding overall gender specific rate and rates for the older age bands.

A1.3.2.3 Country and Region
The regional distribution of the estimated number of days lost to work related stress, depression or anxiety show that rates per person were not significantly different across England, Wales and Scotland. Although none of the regional rates differed significantly from the rate for England, the South East and London accounted for just
over a quarter of the estimated working days lost to stress, depression or anxiety (HSE, 2003).

A1.3.2.4 Industrial Sector
SWI01/02 data show that public administration and defence, followed by education, and health and social work carried rates that were statistically significantly higher than the rate for all industries. At the other end of the scale, wholesale and retail trade, and real estate, renting and business activities sectors recorded the lowest rates. Public administration and defence, health and social welfare, and manufacturing together accounted for half the total working days lost to stress, depression or anxiety (HSE, 2003).

A1.3.2.5 Occupational Groupings
The only occupational group carrying a rate for days lost per person that was statistically significantly higher than the rate corresponding to all occupations was associate professional and technical occupations. This occupational grouping together with two other major occupational groups, managers and senior officials, and professional occupations accounted for over half the total working days lost to stress, depression or anxiety. At the other end of the scale, skilled trade occupations recorded the lowest rates of all occupations (HSE, 2003).

A1.4 Trends in Long Term Sickness Absence in the UK
Before analysing the SWI datasets for trends it is important to note that comparisons between them have to be based on a restricted coverage (i.e., limited to people who worked in the last 12 months) due to differences in coverage and level of information collected. This adjustment allows for broad comparisons to be made between the results of SWI surveys since they began in 1990. Reviewing the SWI01/02 figures in conjunction with those of previous surveys and CBI and associated datasets reveals several key trends.

A1.4.1 Prevalence
There has been a decline in the estimated prevalence of self reported work related

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5 This major occupational group includes health associate professionals, protective service occupations and business and public service associate professionals.
illness over the last ten years such that the overall number of people reporting an illness caused or made worse by work in the 2001/02 survey was significantly fewer than the numbers in 1990 and 1995 (HSE, 2001; HSE, 2003). The estimated prevalence of self reported work related illness has fallen from 2,793,600 in 1990 to 2,328,000 in 2001/02, reflecting a shift in prevalence rate per 100,000 employed from 5900 in 1990 to 5000 in 2001/2002 (HSE 2003). This trend is also reflected in Civil Service absence data which shows a steady decline in the mean number of sickness absence episodes over recent years (Cabinet Office, 2003).

A1.4.2 Sickness Absence by Geographical Region

As far back as 1971/72, rates for work related sickness absence in the UK showed significant variations across different countries and regions. Wales had a significantly higher level of sickness absence compared to Scotland and England, and these in turn were very similar in their mean levels of work related sickness absence. As to regions, The North, followed closely by Yorkshire and Humberside and the North West recorded significantly higher levels of sickness absence than any other region. The South East and East Anglia recorded significantly lower levels of work related sickness absence compared to all other regions (Wells, 1981).

By 1978/79, the relative positions of these countries and regions with respect to mean levels of work related sickness absence remained unchanged. However, the rates for Wales and the Northern Region both increased substantially during this period (25 per cent). Rates for Wales climbed to almost twice the national average and the North reached a rate that was more than one and a half times the national average.

These regional variations in sickness absence rates have remained relatively constant over the last 25 years. Wales has maintained the highest prevalence rate for Great Britain and England, while the rate for Scotland remains statistically significantly lower than that for Great Britain and England as a whole (HSE, 2003). Within England, the highest prevalence rates are in Yorkshire and the Humber, the South West and the West Midlands. All three regions had prevalence rates that were statistically significantly higher than the rates for England and Great Britain as a whole. The East had the lowest prevalence rate, again being significantly lower than England as a whole (HSE, 2003).
Appendix 1 LTSA – The Scale of the Problem

A1.4.3 Working Days Lost

While the overall prevalence of self reported work related illness has been falling steadily in the UK over the last decade, the estimated time lost through work related illness has been rising. SWI01/02 estimated that 32.9 million working days were lost in the previous 12 months through illness caused or made worse by work. This is compared to 18 million working days that were estimated to have been lost in the SWI95 survey. Allowing for increases in numbers employed, this still represents a significant increase in working days lost (HSE, 2002). Similarly, Civil Service figures indicate a steady increase in total time lost over the last four years and in mean time per employee (Cabinet Office, 2000; 2001; 2002; 2003). In contrast, CBI (2003) figures show a downward trend in total working time lost over the last 10 years. This discrepancy most likely reflects the different measurement parameters inherent in the CBI surveys.

A1.4.4 Types of Illness

There have been substantial changes in the prevalence of different sickness categories. Historically, musculo-skeletal disorders have always been the most commonly reported conditions and have accounted for the most time lost. SWI95 figures show that musculo-skeletal disorders accounted for nearly sixty per cent of all cases and fifty six percent of total days lost while stress, depression or anxiety was responsible for fifteen per cent of all cases and 25 per cent of total days lost (HSE, 1995). However, by 2002 musculo-skeletal disorders had fallen to a level whereby they comprised approximately forty four per cent of all reported cases of work related illness and only thirty seven per cent of total days lost (HSE, 2003). In contrast, stress, depression or anxiety increased to a level whereby they comprised approximately one third of all reported cases of work related illness and forty one per cent of total days lost. The estimated prevalence rate of stress and related conditions has increased over time and is currently around double the level it was in 1990 while the estimated prevalence rate for musculo skeletal disorders is now lower than it was in 1990 (HSE, 1991; 2003).

A1.4.5 Working Days Lost Per Episode of Sickness Absence

Civil Service figures indicate that over recent years there has been a gradual decrease in the mean length of overall sickness absence episodes from 6.4 days to
5.92 days but a gradual increase in the mean length of long term sickness absence episodes from 52.5 days to 76.78 days in 2002. SWI figures concur with this upward trend, showing an increase in the mean length of overall work related sickness absence episodes from 13.9 days in 1995 to 22.9 days in 2001/02 (HSE, 1995; 2003). For stress, depression or anxiety, the mean length per episode has increased from 16.16 days in 1995 to 29.2 working days in 2001/02, making it the fastest growing sickness absence category. For the same period, the mean length per episode for musculo-skeletal disorders increased from 13.08 days to 19.4 working days (HSE, 1995; 2003).

A1.4.6 Incidence of Long Term Sickness Absence

The proportion of long term sickness absence episodes as a percentage of total episodes has increased from 3.9 per cent to 5.7 per cent over the last four years. Moreover the number of people taking one or more episodes of long term sickness absence has increased from 8.5 per cent to 10.6 per cent for the same period (Cabinet Office, 2003).

With these changes in the incidence and duration of long term sickness absence episodes has come an increase in the proportion of total working time lost that is attributable to long term sickness absence. In 1978/79 approximately 20 per cent of all sickness absence in Britain was considered long term (Wells, 1981), but by 2002, this figure had more than tripled and currently stands at a level of just under seventy per cent (Cabinet Office, 2003; CBI, 2003).

It is difficult to know how much of the increase in working days lost can be explained by changes in absence durations, however some of it does appear to be due to this: between 1995 and 2001/2002 the average days off per sickness absence episode increased by 9 working days while the average days off per episode for stress, depression or anxiety increased by 13 working days. Furthermore, the rise in the prevalence of stress, depression or anxiety over time will also have contributed: this category accounted for 14 per cent of all sickness absence episodes in 1990 and by 2001/2002 the figure had risen to 34 per cent (HSE, 2003).

A1.4.7 Summary of Trends in UK Sickness Absence

Key trends in the overall picture of long term sickness absence among the UK working
population can be summarised as follows. Firstly, musculo-skeletal disorders followed by stress, depression or anxiety have been by far the most commonly reported work related illnesses in all LFS surveys since they began in 1990 (HSE 2001). Similar findings have been reported in the Civil Service surveys. Estimated prevalence rates for both disease groups increased between 1990 and 1995. These changes were statistically significant. However, by 1998/99 the pattern had changed and while the rate for stress, depression or anxiety continued to rise, the rate for musculo-skeletal problems fell. Both changes were statistically significant. In 2001/2002 musculo-skeletal disorders remained the most prevalent, albeit decreasingly, work related sickness absence category. However stress, depression or anxiety recorded a prevalence level that was more than twice what it had been a decade previously and it has the highest incidence of work related sickness absence episodes.

Secondly, whereas the overall number of self reported cases of work related illness was significantly lower in 2002 than a decade previously, the estimated time lost to work related illness increased significantly during that time, with levels almost doubling in the last 6 years. This is due at least in part to significant increases in the prevalence of long term sickness absence episodes and the duration of sickness absence episodes. In particular, the duration of work related sickness absence episodes associated with stress, depression or anxiety and to a lesser extent musculo-skeletal disorders have increased substantially over the last decade. In 2001/2002 stress, depression or anxiety was the largest contributor to the overall estimated annual days lost from work related ill health and collectively, stress, depression or anxiety and musculo-skeletal disorders counted for approximately three quarters of all time lost to long term sickness absence in the UK.

Thirdly, most of the long term sickness absence among the UK working population is taken by a relatively small group of people. In 2002, long term sickness absence episodes counted for approximately 5 per cent of the total number of absence episodes, which was taken by 10 per cent of the working population that took sickness absence in that year, and contributed roughly two thirds of the total working days lost to sickness absence (Cabinet Office, 2003; TUC, 2000).

These trends are similar to international experiences. For example, in a major study of work related illness in the state of Wisconsin, US, over a two year period from
1989-1990, researchers found that workers who lost at least 30 days’ work constituted only 52 per cent of the total number of workers in the study, but they accounted for 98 per cent of total working days lost. They also accounted for 94 of the income benefits paid to injured workers in the two year period. The researchers concluded that interventions aimed at improving return to work among these longer duration injuries would have a much greater impact than those affecting short term cases (Galizzi and Boden, 1996).
A2.0 APPENDIX 2  HISTORY TO VOCATIONAL REHABILITATION

Research into LTSA and RTW outcomes has largely been considered within the context of vocational and more recently, workers compensation rehabilitation literature. Internationally there is no standard definition of vocational rehabilitation (Westmorland and Buys, 2004). Literally, the term ‘rehabilitation’ refers to the restoration of someone or something to a previous ability status. Thus, vocational rehabilitation concerns the provision of services for persons with previous work history to enable them to reenter the workforce after injury/illness. However the term is also frequently used to refer to services for persons with inborn permanent disabilities who need tools for entering the workforce in the first place. As the focus of this research is on people who become incapacitated during their working life and take one or more episodes of LTSA, the research literature on this latter population will not be considered.

A2.1 The United States

Vocational rehabilitation has its origins in the United States (US) and the US remains the primary source of research in this field. In the US there developed a system of federally mandated vocational rehabilitation from 1920. Prior to the 1940’s vocational rehabilitation was essentially the provision of guidance and counselling services to individuals with disabilities. Subsequently, it was formally defined by the Barden-LaFollette Act of 1943, which legislatively approved “the use of federal funds for physical restoration services including hospitalisation, surgery, and therapeutic treatment” (Lassiter, 1972, p. 43), in addition to providing for other federally funded activities. The Act covered individuals with disabilities and mental disorders. An outcome of this was the development of vocational rehabilitation services that went beyond ‘special needs placements’ and workplace modifications; it incorporated the restoring or changing of the individual.

Today, rehabilitation, or disability management as it is sometimes referred to, incorporates a formal assessment process whereby it aims to identify the ‘critical work behaviours’ which an individual may need in order to achieve their vocational goals, and to determine whether there is a shortfall with regard to any of these. Compared to the UK, the field of rehabilitation and the people who work in it are more advanced, professional and financially aided (BSRM, 2000). The Rehabilitation Services Agency
Appendix 2 LTSA – A History of Vocational Rehabilitation

(RSA), a part of the federal government, has a budget of nearly $50 million to support rehabilitation education. Another US government agency, the National Institute on Disability and Rehabilitation Research has an annual budget of over $100 million. Much of this funding goes to local research and training centres to research and develop new approaches in medical, social and vocational rehabilitation.

A2.2 The United Kingdom

In the UK, Government and professional interest in vocational rehabilitation was linked to the First World War which produced a population of disabled ex-servicemen who required retraining and remedial work. Interest lapsed after the war but returned during the Second World War as attempts were made to reduce disability, retrain disabled servicemen and employ disabled civilians in occupations from which workers had been called up for the forces. One notable industry, mining, recognised that miners who had been away from work for more than a limited period underwent a decline in their general physical fitness which further delayed their return to work. To address this, in 1943 the Miners Welfare Commission established seven rehabilitation centres. This was the first industrial rehabilitation unit to be established in the UK. The RAF established similar numbers of rehabilitation centres during the war.

In 1944 the UK Disabled Persons (Employment) Act was introduced to ensure that employers gave work to servicemen injured in World War II. The Act specifically referred to individuals with substantial difficulties obtaining or keeping employment due to physical or mental conditions (Doyle, 1995). More recently, the Disability Discrimination Act, 1995 addressed discrimination at work and also widened the definition by focusing on some of the social effects of having a disability. This more inclusive definition is intended to improve employment opportunities for people with disabilities by covering issues such as discriminatory practice in the provision of, or access to goods, facilities, services, public buildings and transport. This is similar to legislation in other countries such as the US and Australia, where disability is defined in medical terms but extends the scope of the legislation to include social aspects of disability (Mclean, 2003).

In an effort to further improve employment opportunities for people with disabilities the UK Disability Discrimination Act, 1995 was extended to include previously exempted employers such as the police and small businesses, and requiring that public bodies
Adopt equal opportunities policies. This change came into effect in October 2004. Paralleling these changes to the disability legislation, were changes to the criteria for accessing benefits, making it more restrictive to obtain disability benefits such as Incapacity Benefit. Both these sets of changes reflect the UK government’s ‘inclusion’ agenda, which is aiming to move from an ‘impairment’ definition to a ‘social’ definition of disability. To what extent these changes to the law and restricting access to benefits will lead to a decrease in long term sickness absence, fewer people on disability benefits and more people at work has yet to be determined.

Recently the Government has expressed its commitment to produce a framework for vocational rehabilitation as part of its initiative to minimising the extent and adverse effects of illness and injury among it’s workforce (DWP, 2004). Having consulted widely with stakeholders a discussion paper was drafted and is currently being circulated among contributors for further refinements. The Government has expressed its commitment to seeing the vocational rehabilitation framework implemented (DWP, 2004).

A2.3 Australia and New Zealand

Until relatively recently, services in both Australia and New Zealand (and Canada) were similar to those in the UK. Both countries had systems that were born from UK legislation. However, in the early 1980’s, with ample evidence that the system was failing all stakeholders Australia and New Zealand overhauled the system and re-orientated resources and attitudes. Both countries encouraged employers and unions to be more receptive to vocational rehabilitation goals and to become actively involved in the rehabilitation process. In contrast to the UK, they made quite different use of social security and workers’ compensation scheme funding (BSRM, 2000).

While the old system fostered longer than necessary absence from work and overly long delays for referrals to specialists, the new system emphasised early intervention to ensure the earliest possible resumption of work after illness or injury. The timely availability of relevant services and their funding, as well as an effective system of referral were made priorities. To that end, new initiatives included early review of all sickness absence, ensuring in some cases, compulsory referral for rehabilitation.

In Australia, the net effect of reorganisation along these lines led to the development
of a Federal and several state workers' compensation authorities whose function it is to operate premium incentive schemes for employers and provide for the occupational rehabilitation of workers with injuries. At the federal level, workers' compensation exists as a number of different employer-financed schemes of occupational disability benefits which parallel a federally-administered, taxpayer-financed, system of social security. At the state level, workers' compensation exists as a statutory self-funding body and is funded by a levy on each workers' compensation policy from every employer in the state (in N.S.W., for example, the levy is 7.6 per cent).

The system is best illustrated by way of a case. Taking the State of New South Wales in Australia, there the Workers' Compensation Act, passed in 1987, introduced a premium incentive scheme for employers, and provided for the vocational rehabilitation of injured workers. This process shifted the focus of workers' compensation from economic (recovery of lost income) to rehabilitative (recovery of lost function) goals. Under the Act, employers are obliged to establish a workplace rehabilitation programme to assist their injured workers to RTW. This involves the appointment of a rehabilitation coordinator whose function it is to provide information to the injured worker, liaise with key personnel such as the supervisor and treating doctor, and negotiate suitable duties. The rehabilitation coordinator may also be involved in referring to specialist occupational rehabilitation providers. This process has led to significant improvements in the management of workplace injury, RTW rates and the cost of injury (Kenny, 1994). Similarly, in the State of Victoria in Australia, the reform of the workplace compensation system in 1992 to include better rehabilitation for injured/ill workers resulted in a forty per cent fall in claims over the subsequent four to five years (DWP, 2004).

A2.4 Sweden

The Scandinavian countries, particularly Sweden and Norway, have for some time pursued more directive labour market policies, aimed at getting people with a congenital or work related illness/injury back to work. Recently, new legislation has been introduced requiring employers ‘to submit a rehabilitation enquiry to the local insurance office within eight weeks of sickness absence. It is also responsible for initiating and financing interventions aimed at work resumption, while the social security agency is responsible for the co-ordination and supervision of rehabilitation measures’ (Thornton and Howard, 2000).
A2.5 Workers Compensation / Occupational Rehabilitation

Workers Compensation Rehabilitation or Occupational rehabilitation as it is now becoming more commonly known, is defined as "the restoration of injured workers to the fullest physical, psychological, social, vocational and economic usefulness of which they are capable" (New South Wales Department of Industrial Relations and Employment, 1987). In contrast to the more 'generic' vocational rehabilitation, this narrower definition relates only to those individuals with work related injuries or illness and emphasises rehabilitative (recovery of lost function) goals. In most countries, the scheme of occupational disabilities compensation is highly integrated into a generic disabilities system, usually conducted upon social insurance principles, as in the UK. Only three countries operate workers' compensation rehabilitation systems at the state or territory level with autonomy, Australia, U.S. and Canada. In the U.S. for example, the various state workers compensation rehabilitation systems have developed independent of the federal vocational rehabilitation system, and over time have built up a relationship.

Workers Compensation rehabilitation systems have become highly developed in Australia, U.S., New Zealand, Canada and some of the Scandinavian countries. Within these countries quite a diverse range of arrangements with respect to return to work rehabilitation have evolved. US and Australian experiences in particular provide a range of examples which testify to the efficacy and importance of particular elements in occupational rehabilitation.
A3.0 APPENDIX 3 ICD CLASSIFICATIONS

The International Statistical Classification (ICD) of occupational diseases has been developed by the World Health Organisation (WHO) mainly for two purposes: (1) notification for labour safety and health surveillance and (2) compensation (WHO, 1992-94). The absence of unified diagnostic criteria, coding systems and classifications reduce the compatibility and comparability of national statistics on occupational diseases. These codes are widely accepted as a standard that can be employed internationally (Oleinick et al, 1996). The following 15 ICD categories are used by the research force to classify and record sickness absence diagnoses.

A3.1 Diagnostic Categories

1. Musculoskeletal: Diseases of the musculoskeletal system and connective tissue
2. Dermatological: Diseases of the skin and subcutaneous tissue
3. Endocrine and Metabolic: Endocrine, nutritional and metabolic diseases
4. ENT and Dental Disorders: Diseases of the ear and mastoid process
5. Gastro-intestinal: Diseases of the digestive system
6. Genito-urinary: Diseases of the genitourinary system
7. Gynaecological inc Obstetrics: Pregnancy, childbirth and the puerperium
8. Infectious and Parasitic Diseases: Certain infectious and parasitic diseases
9. Mental Health Disorders: Mental and behavioural disorders
10. Cardiovascular and blood: Diseases of the circulatory system
11. Neoplasms: Neoplasms
12. Neurological: Diseases of the nervous system
13. Ophthalmic: Diseases of the eye and adnexa
14. Other: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified
15. Respiratory: Diseases of the respiratory system
### A.3.2 Sickness Types Within Primary Diagnostic Categories

#### Mental Health Disorders

<table>
<thead>
<tr>
<th>SicknessCode</th>
<th>SicknessType</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000</td>
<td>Anxiety State</td>
</tr>
<tr>
<td>3003</td>
<td>Bereavement</td>
</tr>
<tr>
<td>3004</td>
<td>Depression</td>
</tr>
<tr>
<td>3005</td>
<td>Debility</td>
</tr>
<tr>
<td>3008</td>
<td>Asthenia</td>
</tr>
<tr>
<td>3032</td>
<td>Alcoholism</td>
</tr>
<tr>
<td>3089</td>
<td>Stress</td>
</tr>
<tr>
<td>3239</td>
<td>Myalgic Encephalomyelitis</td>
</tr>
<tr>
<td>392</td>
<td>Stress Related Disorder</td>
</tr>
<tr>
<td>395</td>
<td>Nervous Disorder</td>
</tr>
<tr>
<td>7805</td>
<td>Insomnia</td>
</tr>
<tr>
<td>7807</td>
<td>Fatigue</td>
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</table>

#### Other

<table>
<thead>
<tr>
<th>SicknessCode</th>
<th>SicknessType</th>
</tr>
</thead>
<tbody>
<tr>
<td>7840</td>
<td>Headache</td>
</tr>
<tr>
<td>9953</td>
<td>Allergic reaction</td>
</tr>
<tr>
<td>996</td>
<td>Unspecified Absence Illness</td>
</tr>
<tr>
<td>998</td>
<td>Unspecified Injury Illness</td>
</tr>
<tr>
<td>9999</td>
<td>Vaccination/drug reaction</td>
</tr>
<tr>
<td>V509</td>
<td>Operation</td>
</tr>
<tr>
<td>V584</td>
<td>Post operative care</td>
</tr>
<tr>
<td>V589</td>
<td>Hospital treatment/tests</td>
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</table>

#### Musculoskeletal

<table>
<thead>
<tr>
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<th>SicknessType</th>
</tr>
</thead>
<tbody>
<tr>
<td>2749</td>
<td>Gout</td>
</tr>
<tr>
<td>318</td>
<td>Sprains/Strains etc.</td>
</tr>
<tr>
<td>3540</td>
<td>Carpal tunnel syndrome</td>
</tr>
<tr>
<td>372</td>
<td>Fracture - Shoulder</td>
</tr>
<tr>
<td>373</td>
<td>Hernia - inguinal</td>
</tr>
<tr>
<td>681</td>
<td>Foot - inflammation</td>
</tr>
<tr>
<td>7030</td>
<td>Ingrowing toenail</td>
</tr>
<tr>
<td>7140</td>
<td>Rheumatoid arthritis</td>
</tr>
<tr>
<td>7159</td>
<td>Osteo-arthritis</td>
</tr>
<tr>
<td>7166</td>
<td>Arthritis</td>
</tr>
<tr>
<td>7169</td>
<td>Joints - inflamed</td>
</tr>
<tr>
<td>7182</td>
<td>Dislocation sport any jnt</td>
</tr>
<tr>
<td>7183</td>
<td>Dislocation recur any jnt</td>
</tr>
<tr>
<td>7200</td>
<td>Spondylsis</td>
</tr>
<tr>
<td>7210</td>
<td>Cervical spondylsis</td>
</tr>
<tr>
<td>7222</td>
<td>Disc-lesion (not lumbar)</td>
</tr>
<tr>
<td>7229</td>
<td>Lumbar disc lesion</td>
</tr>
<tr>
<td>7238</td>
<td>Stiff neck</td>
</tr>
<tr>
<td>7242</td>
<td>Lumbago</td>
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<tr>
<td>7243</td>
<td>Sciatica</td>
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<tr>
<td>7245</td>
<td>Backache</td>
</tr>
<tr>
<td>7250</td>
<td>Polyneuralgia</td>
</tr>
<tr>
<td>7260</td>
<td>Frozen shoulder</td>
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<tr>
<td>7269</td>
<td>Tendinitis</td>
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<td>7270</td>
<td>Tenosynovitis</td>
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<td>7273</td>
<td>Bursitis</td>
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<tr>
<td>7286</td>
<td>Muscle contracture</td>
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<tr>
<td>7287</td>
<td>Plantar fasciitis</td>
</tr>
<tr>
<td>7288</td>
<td>Muscular spasm</td>
</tr>
<tr>
<td>7339</td>
<td>Degenerative change any bone</td>
</tr>
<tr>
<td>7373</td>
<td>Scoliosis</td>
</tr>
<tr>
<td>8020</td>
<td>Fracture - nose</td>
</tr>
<tr>
<td>8024</td>
<td>Fractures - maxilla</td>
</tr>
<tr>
<td>8030</td>
<td>Fract-skull-no intercrania</td>
</tr>
<tr>
<td>8050</td>
<td>Fracture - vertebra</td>
</tr>
<tr>
<td>8072</td>
<td>Fracture - sternum</td>
</tr>
<tr>
<td>8100</td>
<td>Fractures - clavicle</td>
</tr>
<tr>
<td>8110</td>
<td>Fracture-scapula</td>
</tr>
<tr>
<td>8120</td>
<td>Fracture-shoulder</td>
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<tr>
<td>8122</td>
<td>Fracture-humorous</td>
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</table>

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>8124</td>
<td>Fractures - elbow</td>
</tr>
<tr>
<td>8130</td>
<td>Fract-radius-ulna-colles</td>
</tr>
<tr>
<td>8140</td>
<td>Fracture-scaphoid-wrist</td>
</tr>
<tr>
<td>8150</td>
<td>Fracture - metacarpal</td>
</tr>
<tr>
<td>8160</td>
<td>Fracture - phalanx - hand</td>
</tr>
<tr>
<td>8200</td>
<td>Fractures - femur - head</td>
</tr>
<tr>
<td>8208</td>
<td>Fractures - hip</td>
</tr>
<tr>
<td>8210</td>
<td>Fractures - femur - head</td>
</tr>
<tr>
<td>8220</td>
<td>Fractures - patella</td>
</tr>
<tr>
<td>8230</td>
<td>fracture-tibia-fibula</td>
</tr>
<tr>
<td>8242</td>
<td>Fractures - malleolus</td>
</tr>
<tr>
<td>8248</td>
<td>Fractures - ankle</td>
</tr>
<tr>
<td>8260</td>
<td>Fracture - phalanx - foot</td>
</tr>
<tr>
<td>8270</td>
<td>Fracture - multiple</td>
</tr>
<tr>
<td>8362</td>
<td>Cartilage damage</td>
</tr>
<tr>
<td>8409</td>
<td>Injury to shoulder</td>
</tr>
<tr>
<td>8419</td>
<td>Injury to elbow</td>
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<tr>
<td>8420</td>
<td>Injury to wrist</td>
</tr>
<tr>
<td>8421</td>
<td>Injury to hand</td>
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<td>8439</td>
<td>Injury to hip</td>
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<td>8449</td>
<td>Injury to knee</td>
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<td>8450</td>
<td>Injury to ankle</td>
</tr>
<tr>
<td>8451</td>
<td>Injury to foot</td>
</tr>
<tr>
<td>8470</td>
<td>Injury to neck-whiplash</td>
</tr>
<tr>
<td>8479</td>
<td>Injury to back</td>
</tr>
<tr>
<td>8483</td>
<td>Injury to chest</td>
</tr>
<tr>
<td>8489</td>
<td>Muscular strain</td>
</tr>
<tr>
<td>8540</td>
<td>Injury to head</td>
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<tr>
<td>9248</td>
<td>Bruising - general</td>
</tr>
<tr>
<td>9560</td>
<td>Injury to face</td>
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<td>Injury to abdomen</td>
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<td>9597</td>
<td>Injury to leg</td>
</tr>
<tr>
<td>9598</td>
<td>Injury - multiple</td>
</tr>
<tr>
<td>S100</td>
<td>Groin strain</td>
</tr>
</tbody>
</table>
Date
[Click here and type recipient's address]
Reference: include BB ID
Dear [Personalise]:

I am conducting a research project as part of my doctorate studies through the University of Surrey. The project is looking at long term sickness absence and strategies that can be used to assist people return to work. The research has the blessing of the [S-W Force]. This is an opportunity for you to help me identify what organisations can do to prevent long term sickness absence and assist those who are on long term sickness absence successfully return to work. You can assist greatly by telling me your story.

Your identity is confidential in that this letter was sent from [HR department name] to maintain your anonymity. If you choose to participate in the research project, please reply to me. In this way the [S-W Force] will not be aware of who has agreed to participate in the study.

If you participate, I would like to interview you either at your home or if preferable at a location in [name of city]. All information will be held by me in strictest confidence and will not be revealed to any other party. Only group information and non attributed quotations will be used when reporting findings making it impossible to identify and attribute things to any individual. Your agreement (or not) to help with this research will in no way interfere with any ongoing discussions you may be having with the [S-W Force] about your particular circumstances.

To talk with me about the project, whether it's to make an appointment or to get more information please telephone me on 0208 876 7082 or email me at b.board@surrey.ac.uk. Thank you.

Sincerely,

Belinda J. Board (C. Psychol., Clinical, MAP's)
## APPENDIX 5 STUDY TWO DEMOGRAPHIC ANALYSES

Table A5.1 Summary of Demographics for LTSA Group Study 1, Random Sample of LTSA Group and LTSA group for Study 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Police Officers</th>
<th>Police Staff</th>
<th>All</th>
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<tbody>
<tr>
<td></td>
<td>LTSA Study 1 %</td>
<td>LTSA Random Sample %</td>
<td>LTSA Study 1 %</td>
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<tr>
<td>Stafftype</td>
<td>71.8</td>
<td>70.0</td>
<td>74.2</td>
</tr>
<tr>
<td>Sex male</td>
<td>78.5</td>
<td>78.7</td>
<td>78.3</td>
</tr>
<tr>
<td>female</td>
<td>21.5</td>
<td>21.3</td>
<td>21.7</td>
</tr>
<tr>
<td>RTW yes</td>
<td>89.0</td>
<td>87.4</td>
<td>80.4</td>
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<tr>
<td>no</td>
<td>11.0</td>
<td>12.6</td>
<td>19.6</td>
</tr>
<tr>
<td>Single vs</td>
<td>82.4</td>
<td>84.4</td>
<td>63.0</td>
</tr>
<tr>
<td>Multiple</td>
<td>17.6</td>
<td>15.6</td>
<td>37.0</td>
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<tr>
<td>Sedentary</td>
<td>15.3</td>
<td>16.8</td>
<td>23.9</td>
</tr>
<tr>
<td>Physical</td>
<td>84.7</td>
<td>83.2</td>
<td>78.1</td>
</tr>
<tr>
<td>Senior M/m</td>
<td>.2</td>
<td>.2</td>
<td>0</td>
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<tr>
<td>Middle M/m</td>
<td>4.0</td>
<td>6.0</td>
<td>6.5</td>
</tr>
<tr>
<td>Supervisor</td>
<td>12.8</td>
<td>11.8</td>
<td>10.9</td>
</tr>
<tr>
<td>Lowest</td>
<td>83.0</td>
<td>81.5</td>
<td>82.6</td>
</tr>
<tr>
<td>Musculo Sk</td>
<td>47.8</td>
<td>44.5</td>
<td>47.8</td>
</tr>
<tr>
<td>MIH</td>
<td>19.3</td>
<td>22.5</td>
<td>34.8</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>.5</td>
<td>0</td>
<td>6.5</td>
</tr>
<tr>
<td>All Others</td>
<td>32.4</td>
<td>33.0</td>
<td>13.0</td>
</tr>
</tbody>
</table>

All group percentages were compared for significant differences and none were found.
"Good morning. I am Belinda Board. As I mentioned on the telephone, I am conducting a research project as part of my doctorate studies through the University of Surrey. My project is looking at long term sickness absence and the barriers to returning to work. I am also interested in what things can help people RTW. The research has the blessing of the Service.

This interview is being conducted to get your story about your experience of being long term sick. Your identity is confidential and your employer will not be aware of who has agreed to participate in the study.

All information from the interview will be held by me in strictest confidence and will not be revealed to any other party. Only group information will be used when reporting findings, making it impossible to identify and attribute things to any individual. Your participation in this research will in no way interfere with any ongoing discussions you may be having with your employer about your particular circumstances.

If it is okay with you, I will take notes throughout our conversation. The purpose of this is so that I can get all the details down accurately and check any details with you in real time as we go along rather than try and recapture them afterwards. I assure you that all your comments will remain confidential. If you agree to this interview, please sign this consent form. Thank you."

"I'd like to start by asking you a few personal details."

**Demographics**

<table>
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<tr>
<th>Full Name</th>
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<td>RTW as at 31/10/02 Y N (2)</td>
<td>RTW as at 1-2-04 Y N (3)</td>
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<tr>
<td>RTW FTND RHND FTRD RHRD N (4)</td>
<td></td>
</tr>
<tr>
<td>Staff type (5)</td>
<td>Number of episodes (6)</td>
</tr>
<tr>
<td>Sing/mult (7)</td>
<td></td>
</tr>
<tr>
<td>Age (8)</td>
<td>Sex (9)</td>
</tr>
<tr>
<td>Place of Birth</td>
<td></td>
</tr>
<tr>
<td>Ethnicity (10)</td>
<td></td>
</tr>
<tr>
<td>Marital status (11)</td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>Number Dependent (12)</td>
</tr>
</tbody>
</table>
"I'm now going to ask you some questions. If you do not understand the question or do not have an answer, please say so."

**Education**

What has been your highest educational attainment? (13)

**Employment with the Service**

I am now going to ask you about your years with the service. How long have you been with the service? (14)

What rank/grade were you at the time of going on LTSA? (15) (16) (17)

Are you or have you been involved in a Disciplinary Tribunal hearing which has run concurrently with an episode of LTSA? (18)

Disciplinary Tribunal issue concluded within LTSA period (19)

Are you or have you been involved in an Employment Tribunal hearing which has run concurrently with an episode of LTSA? (20)

Employment Tribunal issue concluded within LTSA period (21)

Is there any past or pending litigation you have been or are involved with that is related to your episode/s of LTSA? (22)
Medical History

Now, if I could ask you to describe your general medical history? (Note: Probe for description in terms of bad/below average, normal/average, good/above average). (23)

Did you smoke cigarettes daily at the time of going on LTSA? (24)

Did your smoking pattern change while on LTSA, and if so, how did it change? (25)

Did your alcohol consumption pattern change while on LTSA, and if so, how did it change? (26)

Is there any family history of mental ill health? (27)

Is there any personal history of mental ill health? (28)
LTSA Story

Can you now tell me your story of being long term sick, everything you can recall about the experience from the moment of illness/injury or going off until you RTW/now? Please include any experience you may have had of the NHS, how satisfied you were with the service, and any waiting times for any appointments including diagnostics, procedures or other treatments. (Probe if necessary for each episode of LTSA since November 1 2000 including the diagnosis if there is one, length of absence, work related or not. In cases of multiple LTSA, prompt for any relatedness between episodes)?

Episode 1 Diagnosis (29)

Injury on Duty (30)

Start date (31)

End date (32)

CDL1 (33)

CDL1a (34)

Episode 2 Diagnosis (35)

Injury on Duty (36)
Start date (37)

End date (38)

CDL2 (39)

CDL2a (40)

Episode 3 Diagnosis (41)

Injury on Duty (42)

Start date (43)

End date (44)

CDL3 (45)

CDL3a (46)

Episode 4 Diagnosis (47)
Appendix 6 LTSA - Study Two Interview Protocol

Injury on Duty (48)

Start date (49)

End date (50)

CDL4 (51)

CDL4a (52)

NHS experience

NHS waiting time in days (53)
Communication

Management

Please can you now describe all the contact you have had to date [you had] with your line manager during your LTSA, (for example, telephone calls, face to face home visit), including who initiated the contact and the reasons for the contact, (for example, to see how the person is progressing, RTW interview, case review, to keep in touch with work). Please also describe any experience you may have had of any waiting times for contact or any appointments.

Wait time for initial contact from line manager in days (54)

Did you have a home visit within the first 28 days of sickness absence? Y N R (55)

Case conference is held at 40 days (56)

Did you have a RTW interview with line manager on day 1 of RTW? Y N N/a (57)

Overall, can you summarise you’re your thoughts about the contact you have had from your manager?
Personnel

Can you now describe all the contact you have had to date [did you have] with Personnel during your LTSA, (for example, telephone calls, letters), including who initiated the contact and the reasons for the contact, (for example, to see how the person is progressing, case review, advising on pay status, pay slips). Please also describe any experience you may have had of any waiting times for contact or any appointments.

Case conference is held at 40 days (58)

By 80 days, advised of impending pay issues via letter (59)

Received regular pay slips (60)

Overall, can you summarise you’re your thoughts about the contact you have had from Personnel?
Occupational Health Unit

Can you now describe all the contact you have had to date [did you have] with the Occupational health unit during your LTSA, \textit{(for example, telephone calls, face to face home visit)}, including who initiated the contact and the reasons for the contact \textit{(for example, CMO visit, case review, recuperative duties scheduling)}. Please also describe any experience you may have had of any waiting times for contact or any appointments.

Overall, can you summarise your thoughts about the contact you have had from Occ Health?
Support, Help and RTW

Please can you now describe what role each of the following people played during your LTSA? Can you describe things that helped or hindered you and say why? (*Probe for specific examples*).

Family

Tell me about the role your family played during your LTSA? Can you offer specific examples of things that helped or hindered you and how?

Friends

Tell me about the role your friends played during your LTSA? Can you offer specific examples of things that helped or hindered you and how?

Colleagues

Tell me about the role your colleagues played during your LTSA? Can you offer specific examples of things that helped or hindered you and how?

GP

Tell me about the role your GP played during your LTSA? Can you offer specific examples of things that helped or hindered you and how?

Line Manager

Tell me about the role your line manager played during your LTSA? Can you offer specific examples of things that helped or hindered you and how?
Appendix 6 LTSA - Study Two Interview Protocol

Occupational Health Unit

Tell me about the role the Occ Health unit played during your LTSA? Can you offer specific examples of things that helped or hindered you and how?

Personnel

Tell me about the role Personnel played during your LTSA? Can you offer specific examples of things that helped or hindered you and how?

Federation/Union

Tell me about the role your Federation/Union played during your LTSA? Can you offer specific examples of things that helped or hindered you and how?
Barriers/Enablers to RTW

From you own experience of being on LTSA, what do you think are the main barriers/enablers to RTW? [Ask twice and probe for any things that hindered/helped them RTW]

Personal Difficulties and Impact of being on LTSA

What have you found [did you find] to be the main difficulties of being on LTSA?

What has been the impact on you of being off work on LTSA?

Overcoming Barriers to RTW

What things have you done to help yourself to RTW?

What things has the service done to help you to RTW?
Appendix 6 LTSA - Study Two Interview Protocol

What is your personal objective now with respect to work?

What would need to happen to make it possible for you to RTW?

What if anything would you like to see change about the way LTSA is managed in the Met?

In your own words is there anything else you can tell me about your experience of being on LTSA, what it has meant [means] to you and what would help [have helped] you RTW sooner or more easily? (Probe to gather specific information).
A7.0 APPENDIX 7 STUDY TWO CONSENT TO BE INTERVIEWED FORM

Consent Form

I hereby agree to being interviewed by Belinda Board, doctoral student in Psychology at the University of Surrey, and for her to use information from the interview in her research into Long Term Sickness Absence.

Name: ____________________________________________

Signed: ____________________________________________

Date: ______________________________________________

BBID: ____________________________________________
## Table A8.1 Non Significant Group Comparisons for Study 2

<table>
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<tr>
<th>Analysis</th>
<th>Results</th>
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<tbody>
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<td>Not RTW x</td>
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<tr>
<td>Staff type</td>
<td>Pearson $\chi^2 = 0.212$, df=1, p=0.646</td>
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<tr>
<td>Sex</td>
<td>Pearson $\chi^2 = 1.108$, df=1, p=0.293</td>
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<tr>
<td>Single/multiple episodes LTSA</td>
<td>Pearson $\chi^2 = 0.155$, df=1, p=0.694</td>
</tr>
<tr>
<td>Sedentary/physical</td>
<td>Pearson $\chi^2 = 1.978$, df=1, p=0.160</td>
</tr>
<tr>
<td>Age</td>
<td>$t(60)=1.110$, p=0.272, two tailed</td>
</tr>
<tr>
<td>Years of Service</td>
<td>$t(60)=0.402$, p=0.689, two tailed</td>
</tr>
<tr>
<td>CDL's x</td>
<td></td>
</tr>
<tr>
<td>Staff type</td>
<td>$t(60)=0.246$, p=0.807, two tailed</td>
</tr>
<tr>
<td>Sex</td>
<td>$t(60)=1.629$, p=0.108, two tailed</td>
</tr>
<tr>
<td>Single/multiple episodes LTSA</td>
<td>$t(60)=0.415$, p=0.680, two tailed</td>
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<tr>
<td>Sedentary/physical</td>
<td>$t(60)=0.871$, p=0.387, two tailed</td>
</tr>
<tr>
<td>Age</td>
<td>$r=0.172$, n=62, p=.180</td>
</tr>
<tr>
<td>Years of Service</td>
<td>$r=0.074$, n=62, p=.283</td>
</tr>
<tr>
<td>RTW ≤ 90 days</td>
<td>RTW ≥ 91</td>
</tr>
<tr>
<td>Sex</td>
<td>Pearson $\chi^2 = 1.978$, df=2, p=0.372</td>
</tr>
<tr>
<td>Single/multiple episodes LTSA</td>
<td>Pearson $\chi^2 = 1.921$, df=2, p=0.383</td>
</tr>
<tr>
<td>Sedentary/physical</td>
<td>Pearson $\chi^2 = 3.673$, df=2, p=0.159</td>
</tr>
<tr>
<td>Age</td>
<td>$(F_{2,59} = 0.641$, p=.530).</td>
</tr>
<tr>
<td>Years of Service</td>
<td>$(F_{2,59} = 0.804$, p=.680).</td>
</tr>
</tbody>
</table>