
The impact of security duties in Northern Ireland on the mental health of soldiers: a prospective study

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Although there has been much interest in the psychological effects of wartime conflict (1,2), today’s army are more commonly employed on internal security and international peace keeping duties. Studies indicate that such duties can result in psychological sequelae including distress, nightmares and tension (3,4). However, this research has not included baseline measures of morbidity. Neither has it explored the impact of security duties in Northern Ireland (NI) in which the majority of the army are involved. This prospective study explored the impact of NI service on the mental health of servicemen.

Participants, methods and results
A stratified sample of 200 servicemen were selected from an infantry battalion of 566 according to rank (officers, (n=20), senior ranks (n=30, Sergeant to Warrant Officer) and junior ranks (n=150, Corporal and below). The following were excluded: women due to their small numbers (n=6), those deemed unfit for NI service and those with administrative reasons (n=44). Three servicemen withdrew prior to departure, leaving a sample of 197. Baseline response rate was 85.8% (n=169). Follow up response rate was 86.3% (n=171). A total of 150 completed both sets of measures (response rate=76.1%). Analyses showed that the responders were similar to the non responders in terms of demographic characteristics.

Following approval by the Army Medical Services Research Executive Committee (AMSREC), an explanatory letter and the anonymous baseline postal questionnaire were sent to the barracks two weeks before deployment to NI. The follow up questionnaire was distributed by the researcher (GL) in NI two weeks before the end of a six months tour. Although the tour was between 1993 and 1994 and before the cease fire, only 8% stated that they had witnessed any traumatic event.

Subjects recorded their age, rank, length of service and marital status. Subjects also completed the General Health Questionnaire 28 (GHQ, 5) at baseline and follow up which assesses somatic symptoms, anxiety, social impairment and depression. This was scored using the binary system (0/1) for the individual items to create total scores for the subscales (range 0-7) and using the recognised cut off point of 5 for ‘caseness’ for the total GHQ score
Data was analysed using Wilcoxon matched pairs rank sum test to compare baseline and follow up subscale scores and Odds Ratios to examine changes in caseness.

Completed questionnaires were received from officers (n=14, 9.4%), senior ranks (n=26, 17.3%) and junior ranks (n=110, 73.3%) and the average age was 25.71 (SD=6.0). Ninety (60%) were single, 1 (0.7%) was widowed/separated/divorced and 59 (39.9%) were married. Fifty four (36%) had served for 0-3 years, 55 (36.7%) had served for 4-9 years and 41 (27.3%) had served for 10 or more years.

The GHQ scores at baseline and follow up are shown in table 1.

**Comment**

Soldiers reported high baseline levels of psychological morbidity and showed a three fold increase in ‘caseness’ following an operational tour in NI. Significant increases in somatic symptoms, anxiety and social isolation were found but depression ratings did not change.

Research has emphasised the detrimental effects of war fighting. Security tours may also be damaging to a soldier’s mental health. On tour soldiers experience cramped living conditions and are separated from their home life in common with many groups of individuals forced to work and live away from home. Soldiers also experience long hours of inactivity interspersed with sporadic episodes of exposure to potentially dangerous situations. Future research should explore what aspects of a soldier’s existence contribute to changes in psychological morbidity if remedial steps are to be taken to maximize a soldiers’ professional potential.

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Contributors: GL conceived the idea for the paper, JO and GL designed the study, GL collected the data, JO and GL analysed the data, JO and GL jointly wrote the paper. GL will act as guarantor for the paper.
References


<table>
<thead>
<tr>
<th>Scale</th>
<th>Baseline (Median and range) (n=150)</th>
<th>Follow up (Median and range) (n=150)</th>
<th>Z score / P value / 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>somatic symptoms</td>
<td>0.00 (0-7)</td>
<td>1.00 (0-7)</td>
<td>z=-4.26 0.0001 (-1.05/-0.39)</td>
</tr>
<tr>
<td>anxiety</td>
<td>0.00 (0-7)</td>
<td>1.00 (0-7)</td>
<td>z=-3.71 0.0001 (-0.99/-0.32)</td>
</tr>
<tr>
<td>social isolation</td>
<td>0.00 (0-6)</td>
<td>1.00 (0-6)</td>
<td>z=-3.62 0.0001 (-0.65/-0.17)</td>
</tr>
<tr>
<td>depression</td>
<td>0.00 (0-7)</td>
<td>0.00 (0-7)</td>
<td>z=-0.087 0.93 (-0.25/0.16)</td>
</tr>
<tr>
<td>GHQ change in caseness (t1-t2)</td>
<td>Follow up</td>
<td>OR=2.9 (1.4/6.4)</td>
<td></td>
</tr>
<tr>
<td>Baseline(t1) NO</td>
<td>82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>YES</td>
<td></td>
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</table>
What is already known on the subject?

Much research has highlighted the impact of war fighting on a soldiers psychological state. Some research has explored the impact of peacekeeping and security duties but has used a cross sectional design.

What this study adds

This prospective study indicated a three fold increase in overall psychological morbidity following a security tour in Northern Ireland.

In particular, soldiers reported an increase in somatic symptoms, anxiety and social isolation. Depression ratings did not increase.

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War fighting can result in a shift in mental health. British soldiers, however, are increasing involved in security and peacekeeping tours in countries such as Iraq, FRY and Northern Ireland. Lawrenson and Ogden report that soldiers show a three fold increase in psychological morbidity following a security tour of Northern Ireland. In particular, levels of anxiety, social isolation and somatic increased. Depression remained unchanged. Steps should be taken to protect soldiers and to maximise their professional potential.