

Mental Health Problems on Operation Resolute (Bosnia)

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SUMMARY: Mental health problems have been studied in a total of 2201 consultations with British troops in a primary health care practice on Operation Resolute (Bosnia) from 1 January to 31 March 1996. About one in 40 (2.5%) of the consultations were for mental health problems; Post Traumatic Stress Disorder (PTSD), depressive disorder, and grief reaction were the most common disorders, followed by acute adjustment reaction and panic disorder. Most cases pre-dated deployment. The number of cases repatriated to the UK was 17, about 10% of the total number of patients repatriated from theatre in this period.

Introduction

It is well known that, among servicemen working on peace-keeping missions in developing countries, mental health problems and alcoholism are a major cause of repatriations to the country of origin (1, 2). However, in a recent study (3) of consultations at a general practice in Divulje Barracks, Split, Croatia on Operation Resolute (Bosnia) mental health problems did not appear to represent such a significant problem.

This paper, therefore, presents a more detailed study of mental health problems in the general practice at Divulje Barracks, and examines the spectrum of problems and the repatriation rate for psychiatric disorders.

Methods

Divulje Barracks, Split, Croatia had a shifting practice population of about 1750 patients, about 5% of whom were female, and was composed largely of British forces (Army 84.1%, RAF 12.5% and RN 3.4%), with a small number of personnel attached from other nations contributing to IFOR, the combined peace-enforcing forces of NATO on Operation Resolute (3).

A manual record was made of every consultation for a mental health problem between 1 January-31 March 1996, the first quarter of the deployment on Operation Resolute for No 3 Casualty Evacuation Squadron, RAF, which provided the primary health care at Split. A note of each diagnosis has been kept and only those for the primary diagnosis of actual illness have been included in the distribution of mental health disorders.

A community psychiatric nurse (CPN) was located in the practice and all patients with a probable mental health disorder were referred to him for assessment and appropriate counselling. The CPN also saw a number of patients with social/welfare problems and, as no psychiatric diagnosis was usually made in these cases, such consultations have been excluded from the data. The CPN also saw British patients referred from other

practices in Croatia and Bosnia-Herzegovina and these patients have also been excluded from this study.

The organization responsible for the arrangement of repatriation flights (No 1 Aeromedical Evacuation Squadron, RAF) was co-located within the practice and data on the total number of evacuations and psychiatric cases repatriated were readily obtained from its records.

Results

The distribution of mental health cases and the frequency of problems are given in Tables 1 and 2. The week numbers given in Table 1 refer to the week of the operation starting at week 1 on 20 December 1995, six days after the signing of the Dayton Agreement on 14 December 1995 and the beginning of Operation Resolute.

A total of 2201 consultations was made in this period and of these 57 (2.5%) were classified as being with regard to mental health. However, these included first and all subsequent consultations for mental health problems, consultations for psychiatric assessment in which no illness was found, and those for social/welfare problems which were not strictly psychiatric cases. When only those primary consultations for mental health disorders, with either the doctor or CPN, are considered only twenty different patients were seen, making 0.9% of the consultations. Of these 4 were female (20%) and 16 male (80%).

It can be seen that week 9 (12-19 February 1996) had the greatest number of cases, when a total of six were seen.

There were four critical incident debriefs of troops who had witnessed abnormal events. These were counselling sessions aimed at preventing PTSD and were, therefore, not strictly dealing with overt psychiatric illnesses. These consultations were not included in the data for mental health disorders (see below). Case 1 had been injured in a road traffic accident; case 2 had witnessed the dead body of a close friend who had committed suicide; case 7 had

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been shot, not seriously, by a sniper; and case 19 had been involved in a fire in which a friend had been very seriously burned.

There were three cases of PTSD: case 5 had acquired his condition from an earlier operation; case 6 had developed it from a medical problem prior to, and unrelated to, deployment. Case 20 was longstanding, arising from a childhood event. All were repatriated for definitive treatment.

Depressive disorders formed three consultations: cases 4 and 9 had depressive illnesses that pre-dated, but with a risk of being exacerbated by, their deployment; and case 15 was deployed whilst undergoing treatment for depression. The latter was not repatriated because he was well and successfully stopped his treatment.

Cases 8, 16 and 18 were seen with normal grief reactions, all of whom had lost close friends or relatives prior to deployment, and, as none were atypical grief, none have been included in the mental health disorder statistics below.

Cases 11 and 17 had acute adjustment reactions to their deployment, and one of these, case 17, also threatened deliberate self-harm. The first adapted to the extra stresses of deployment quickly, but the second needed repatriation.

Cases 3 and 13 had panic disorder, the first with an onset in theatre, and the other with a longstanding disorder exacerbated in theatre.

Case 14 had a phobic state: simple fear of heights, and as a driver he was unable to cope with the high mountain passes of Bosnia-Herzegovina and had to be replaced.

Case 10 was seen for stress management: for him this was a longstanding problem that was temporarily increased by the operation.

Case 12 was counselled for HIV, and, as there was no psychiatric disturbance, it has not been included in the mental health problem data below.

There were four consultations to assess alcohol use. None of the patients seen was considered to have an alcohol abuse/dependency problem. These consultations have not been included in the table.

Thus, of the twenty cases reported here only twelve were for actual mental disorders, and ten (83%) of these patients (eight males and two females) had conditions which pre-dated their deployment. Only three cases (cases 3, 11 and 17) seemed to have arisen *de novo* on their deployment, and these represent 0.1% of the total number of consultations. Five other patients (cases 4, 9, 10, 13 and 14) had conditions which were, or could have been, heightened by the extra stresses of deployment.

A total of 188 patients were repatriated from 1 January-31 March 1996, and of these 17 cases (about 10%) had mental health problems. These cases consisted of all the mental health patients evacuated from the entire theatre, including the five from Divulje Barracks (see Table 1).

Table 1
The Distribution of Mental Health Cases

Week No.	Case No.	Male/Female (M/F)	Problem	Problem Predates Deployment	Repatriated
3	1	M	Critical incident debrief	No	Yes*
4	2	F	Critical incident debrief	No	Yes#
	3	F	Panic disorder	No	Yes*
5	4	F	Depression	Yes	Yes
	5	M	PTSD	Yes	Yes
6	6	M	PTSD	Yes	Yes
	7	M	Critical incident debrief	No	Yes#
7	8	M	Grief reaction	Yes	No
	9	M	Depression	Yes	No
8	10	M	Stress reaction	Yes	No
	11	M	Acute adjustment reaction	No	No
	12	M	HIV counselling	No	Yes*
9	13	M	Panic disorder	Yes	Yes*
	14	M	Phobic state	Yes	Yes
	15	M	Depression	Yes	No
	16	M	Grief reaction	Yes	Tourex
	17	M	Acute adjustment reaction	Yes	Yes
	18	M	Grief reaction	Yes	No
13	19	M	Critical incident debrief	No	Yes#
14	20	F	PTSD	Yes	No

*Evacuated to medical ward

Evacuated to orthopaedic ward

Tourex = came to end of tour naturally

Table 2
Frequency of Mental Health Problems

Problem	Number of Cases
Critical incident debrief	4
PTSD	3
Depressive disorder	3
Grief reaction	3
Acute adjustment reaction	2
Panic disorder	2
Phobic disorder	1
Stress reaction	1
HIV counselling	1
Total	20

Discussion

British troops at Divulje Barracks, Split, on Operation Resolute coped very well with the local conditions in the first quarter of 1996 and presented only three new cases of mental health disorders. Repatriations for mental health problems for the theatre as a whole made up less than 10% of the total number of personnel sent home for medical reasons, and many of those from Split had pre-existing conditions. All the conditions from Split were

relatively mild. No psychotic disorders or cases of alcoholism presented to this practice.

The epidemiological experience of the United Nations Transition Assistance Group in Namibia (3), namely that psychiatric causes and alcoholism are frequent reasons for repatriation (about 24% of their repatriations), did not hold for this practice. The figures for this and the Namibian study have been compared using the x-square test and the proportions are statistically significantly different ($p < 0.05$). The differences would depend partly on the criteria used to decide when to repatriate. At Divulje Barracks patients would be returned, in general, if their condition required continued treatment or expert assessment, if their health might suffer by remaining in theatre, or if they were unable to perform their primary duties. The criteria adopted in Namibia are not given. It is interesting to note, however, that the percentage of new consultations for mental health problems observed here (0.9%) was very similar (not statistically significantly different using the x-square test) to that experienced in Namibia (0.6%), although, by contrast, there were no consultations for alcoholism here. The overall proportion of mental health consultations of 2.5% compares well (not statistically different using x-square test) with the Persian Gulf War experience (4) where psychiatric diagnoses made up 3.4% of the visits to sick parade in an American practice, assuming that the latter figure included consultations for assessment and social/welfare problems as in this study.

It is interesting that the repatriation rate with mental health disorders was higher than the proportion of consultations with confirmed mental health problems. Of all the medical conditions presenting, mental health problems had been most likely to satisfy the repatriation criteria (for example, because of being made unfit to handle live arms and, therefore, unable to carry out their primary duties involving movement into Bosnia-Herzegovina). Other conditions, such as orthopaedic, could usually be seen and treated by a specialist in theatre without needing repatriation. As most psychiatric troops had been deployed with a past history of, or ongoing, mental health problems, it is probable that the number of patients presenting and being returned would have been lower had such troops been excluded from deployment, or had a psychiatrist also been present in theatre.

The three cases of PTSD pre-dated their deployment and no new cases attributable to the operation were encountered. The point prevalence of PTSD in the general population is about 1% (5), 3.5% in uninjured war veterans (6) and 20-40% in injured combat veterans (6, 7), and it was therefore anticipated that there would have been more cases. As PTSD may need time to develop after a stressful event (8), it is possible that the number of cases would increase as the yearlong operation progressed. The response to being in a combat zone may vary according to the intensity and accumulation of stressors (9), and, unlike in the Persian Gulf War where

the worry of chemical-weapon missiles and fear of combat were ever-present, threats at and around Split on Operation Resolute in the period studied were low and, hence, PTSD was less likely to have been precipitated. Thus, one factor influencing the lack of new PTSD cases might have been the difference in perceived threats on a peace-enforcing mission such as Operation Resolute compared with those on a declared war as in the Persian Gulf. The treatment and prevention of PTSD is being evaluated (5), but front line treatment has a role in limiting PTSD (10) and, for this reason, the four cases who had suffered unusually stressful events were offered critical incident debriefing.

Unexpectedly, no new cases of depressive disorders were encountered in this period at Divulje Barracks, for, given one year incidences of 1-2 per 1000 for males and 3-6 per 1000 for females (11), about six cases might have been predicted for the 9500 male and 500 female troops of the British force (approximate figures), and one or two for this practice (about one quarter of the force). All the depressive disorders seen here pre-dated deployment and the need to maintain fighting effectiveness dictates that troops with depressive disorders be carefully assessed before deploying on such an operation.

Morbidity statistics from British general practice (12) and data from Fry and Sandler's work (13) also show that for the assumed size of this practice population, there were fewer cases of anxiety/depression and psychological/emotional problems than expected. When the figures in this study are compared with these other two, using the x-square test (with the Mantel-Haenszel correction for small numbers where appropriate), the differences are statistically significant ($p < 0.01$ for anxiety-depression for (12); $p < 0.01$ for psycho-emotional problems for (13), except for severe depression where the numbers involved were very small. It must be borne in mind, however, that the population characteristics of this and the other two studies were very different.

REFERENCES

1. STEFFEN R, DESAULES M, NAGEL J, *et al*. Epidemiological experience in the mission of the United Nations Transition Assistance Group (UNTAG) in Namibia. *Bull WHO*, 1992; **70**: 129-133.
2. ENGEL HO. Fitness for work abroad. *JR Soc Med* 1980; **73**: 303-4.
3. WINFIELD DA. A study of primary health care at Divulje Barracks, Split on Operation Resolute (Bosnia). *JR Army Med Corps* 1997; **143**: 19-25.
4. HINES JF. A comparison of clinical diagnoses among male and female soldiers deployed during the Persian Gulf War. *Milit Med* 1993; **158**: 99-101.
5. JACKSON G. The rise of post-traumatic stress disorders. *Br Med J* 1991; **303**: 533-4.
6. HELZER JE, ROBINS LN, McEVROY L. PTSD in the general population: findings of the epidemiological catchment area study. *N Engl J Med* 1987; **317**: 1630-4.

7. PITMAN R, ALTMAN B, MACKLIN M. The prevalence of post-traumatic stress disorders in wounded Vietnam veterans. *Am J Psychiatry* 1989; **146**: 667-9.
8. GELDER MG, GRATH H, MAYON R. Concise Oxford Textbook of Psychiatry. Oxford University Press. Oxford.
9. NOY S. Battle intensity and length of stay on the battlefield as determinants of the type of evacuation. *Milit Med* 1987; **152**: 601-7.
10. SALMON TW. The war neuroses and their lesson. *NY State J Med* 1919; **59**: 993-4.
11. GELDER MG. Psychiatry in medicine. In: Oxford textbook of medicine (3rd ed). Editors: WEATHERALL DJ, LEDINGHAM JGG, WARRELL DA. Oxford Medical Publications. Oxford University Press, 1996.
12. Office of Population Censuses and Surveys, 1986. Morbidity statistics from general practice. Third National Study, 1981-1982. Series MB5 no 1. HMSO, London.
13. FRY J, SANDLER G. Common Diseases. Their nature,

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