

Clinical findings of the second 1000 UK Gulf War Veterans who attended the Ministry of Defence's Medical Assessment Programme

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ABSTRACT

Objective - To review the diagnoses made in the second 1000 veterans of the Gulf conflict 1990-91 seen in the Ministry of Defence's Gulf Veterans' Medical Assessment Programme and to determine the main conditions related to Gulf service.

Design - Case series of 1000 consecutive Gulf veterans who presented to the programme between 25 February 1997 and 19 February 1998.

Subjects - Gulf War veterans.

Main outcome measures - Assessment of the patient's health status. Diagnosis of medical and psychiatric conditions using ICD-10.

Results - 204 patients were unwell. 309 patients had organic disease, of whom 248 were well, 252 had psychiatric conditions which remained active in 173. The remaining 79, now well, had had psychiatric disorders following Gulf service. The principal psychiatric diagnosis was post traumatic stress disorder and the majority arose as a result of Gulf service.

Conclusion - 796 (80%) veterans were well. There were 309 (31%) patients with organic disease. 252 (25%) veterans had psychiatric conditions of which 173 (69%) had an active diagnosed disorder and post traumatic stress disorder was the predominant condition. The pattern of disease is similar to that seen in NHS practice. We found, like others, no evidence to support a unique Gulf War syndrome. Post conflict illnesses have many common features.

Introduction

Post war illnesses have been recorded since at least the American Civil War (1861-65) (1). Clinical findings of the first 1000 Gulf veterans who were examined at the Gulf Veterans' Medical Assessment Programme (GVMAP) have been reported (2) (referred to as "the first 1000"). Using the same assessment process, we present the diagnoses of the second 1000 Gulf veterans seen at this unit.

Methods

Consultations and investigations remain the

same as previously described Coker *et al* (2), being similar to those used in medical outpatient clinics at NHS hospitals. The basic assessment is itemised in the box.

Routine tests administered in medical assessment programme

- Full blood count
- Blood chemistry tests: urea and electrolytes, liver function, thyroid function, serum calcium and phosphate, creatinine, C reactive protein, creatine phosphokinase, glucose, immunoglobulins, serum electrophoresis
- Serology tests: amoebic indirect fluorescent antibody, borrelia and brucella titres, complement fixation assay for coxiella, Epstein-Barr virus, cytomegalovirus, enterovirus screen, Leishmaniasis A and B and sandfly fever
- Urine analysis
- Electrocardiography
- Abdominal ultrasonography
- Chest radiography
- Lung function tests

Case series

This comprises the second 1000 consecutive Armed Forces patients who attended the GVMAP between 25 February 1997 and 19 February 1998. Patients' military details were checked against the Ministry of Defence database to verify Gulf service at any time between 1 September 1990 and 30 June 1991. Only Armed Forces personnel who served in the Gulf are considered in this series.

Diagnoses

All patients were seen by a consultant physician. We, the authors, reviewed case files to determine whether the diagnosis made was related to Gulf service and to assess the "wellness" of patients. Diagnoses were classified as main and incidental and were coded according to the International Statistical Classification of Diseases and Related Health Problems 10th Revision (3).

Psychiatric diagnoses

All psychiatric diagnoses were made by either service or civilian consultant psychiatrists. Where a MAP physician or referring doctor felt that a psychiatric condition was present, a psychiatric opinion was sought. The "no

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Table 1 Sociodemographic data

	1st 1,000 Gulf veterans (n=1,000)	2nd 1,000 Gulf veterans (n=1,000)	x ² test for heterogeneity	All Gulf veterans (n=53,462)
Service:				
Army	768 (77)	748 (75)	p<0.005	37,434 (70)
Royal Navy	66 (7)	101 (10)		5,964 (11)
Royal Air Force	166 (17)	151 (15)		10,064 (19)
Sex:				
Male	954 (95)	958 (96)	not significant	52,227 (98)
Female	46 (5)	42 (4)		1,235 (2)
Rank:				
Officers	86 (9)	93 (9)	not significant	5,956 (11)
Other ranks	911 (91)	907 (91)		47,506 (89)
Type of engagement:				
Regulars	927 (93)	958 (96)	p<0.01	52,370 (98)
Reservists	68 (7)	42 (4)		1,092 (2)
Age on 1 January 1991 (years):				
<20	78 (8)	114 (11)	p<0.001	6,376 (12)
20-24	330 (33)	331 (33)		18,988 (36)
25-29	225 (23)	234 (23)		12,874 (24)
30-34	186 (19)	176 (18)		7,886 (15)
35-39	101 (10)	86 (9)		4,347 (8)
>=40	79 (8)	59 (6)		2,991 (6)

Values are numbers (percentages) of patients

formal psychiatric diagnosis" (NFPD) category represents those patients whose psychiatric assessment results were not available despite being requested. Some of these NFPD veterans were considered well inasmuch as they were functioning in a fully competent manner.

Definitions

An individual's functional status is the degree of ability to work, play sports, maintain a home, and to perform these activities free of

physical or mental limitations (4,5). It was possible to assess the clinical importance of a patient's symptoms and either make a diagnosis of illness or suggest that symptoms did not constitute the basis of ill health. We defined three categories of "well" as follows:

i) *well completely*: those patients who were asymptomatic. This group also included asymptomatic patients who wished to discuss the possibility that Gulf service might have affected their health or that of their partners, their children or future children;

ii) *well with symptoms*: patients who presented with symptoms but were able to function in a fully competent manner;

iii) *well with incidental diagnoses*: patients with recognised current or past disease (organic or psychiatric), whose symptoms were well controlled or had remitted and were functioning with normal physical, psychological and social capacities;

iv) the *unwell* had active disease or symptoms interfering with daily living;

Bridging 100 cases

In order to evaluate the diagnostic concordance between the assessments of the first and second 1000 HAL and RG took a random sample of 100 of the first 1000 and separately re-analysed the clinical records. The notes were then reviewed by PB (who is independent of GVMAP clinical work) further to assess concordance.

Results

All case notes were available for review.

The bridging 100

HAL, RG and PB were in complete agreement about main diagnoses and health status in the 100 randomly selected patients. There was disagreement over incidental diagnoses in 11 veterans. There was complete agreement over main diagnoses

Table 2 Symptoms in the second 1,000 and first 1,000 Gulf veterans

Symptom groups	2nd 1,000 Gulf veterans (n=1,000)	1st 1,000 Gulf veterans (n=1,000)
1-Affective	486 (49)	494 (49)
2-Joints & muscles, aches & pains	466 (47)	395 (40)
3-Fatigue	452 (45)	421 (42)
4-Cognitive	411 (41)	261 (26)
5-Headaches & migraine	309 (31)	256 (26)
6-Respiratory	233 (23)	243 (24)
7-Sleep difficulties	220 (22)	212 (21)
8-Skin lesions	217 (22)	194 (19)
9-GIT	204 (20)	218 (22)
10-Sensory	168 (17)	114 (11)
11-Sweats and fever	122 (12)	105 (11)
12-ENT	109 (11)	153 (15)
13-Dizziness, blackouts	107 (11)	80 (8)
14-Colds, flu etc.	104 (10)	48 (5)
15-Weight changes	77 (8)	96 (10)
16-Eyes	70 (7)	72 (7)
17-Alcohol & substance abuse	59 (6)	60 (6)
18-GU	49 (5)	114 (11)
19-Reproductive	41 (4)	26 (3)
20-Palpitations	35 (4)	-
21-Dental ²	34 (3)	-
22-Not classified/other	-	193 (19)
23-No symptoms	115 (12)	74 (7)

Values are numbers (percentages) of patients

¹Palpitations for the first 1,000 are included in category 22-Non classified/other

²Dental symptoms for the first 1,000 are included in category 12-ENT

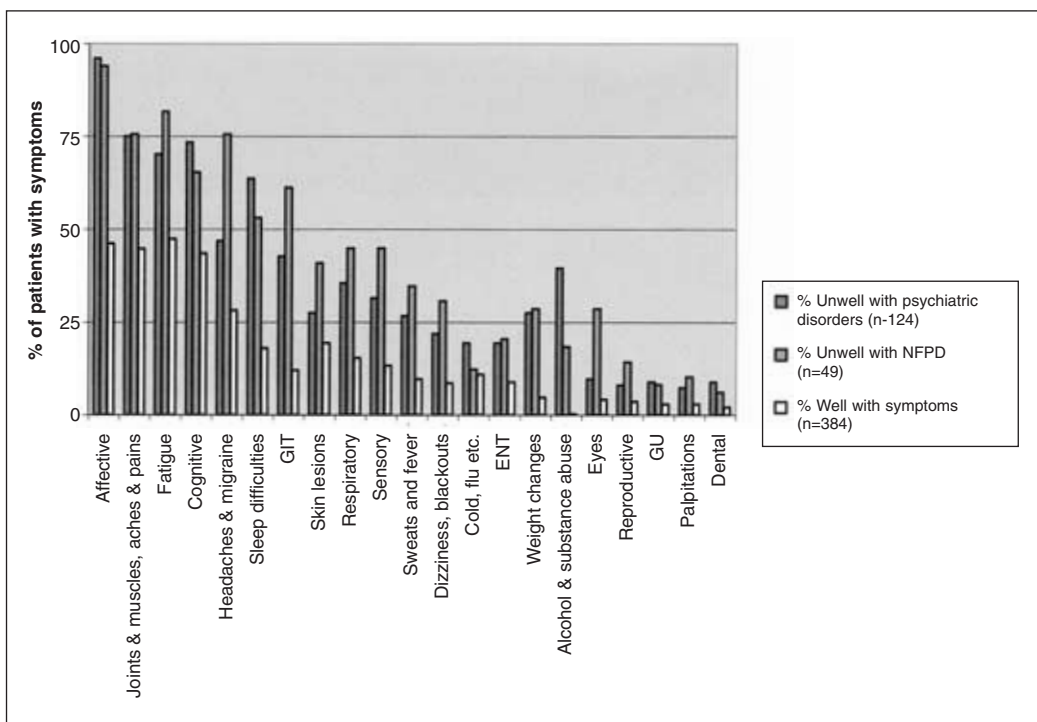


Fig 1. Distribution and frequency of symptoms

between us and the authors of the first 1000 (2). However, we disagreed over incidental diagnoses in 16 cases. These differences arose because patients had been given an ICD-10 Chapter 18 diagnosis (symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified).

The second 1000

Table 1 compares the sociodemographic data of the first and second 1000s and all Gulf veterans. Of the second 1000, 549 (55%) were ex-Service compared to 671 (67%) in the first 1000. The second 1000 more closely represented the sociodemographic structure of the deployed force, particularly with respect to gender, reservist status and age. The symptoms for patients in the second 1000 who were unwell with psychiatric disorders or NFPD or who were well with symptoms are shown in Table 2. Figure 1 shows a similar distribution of overall symptoms between the ‘well with symptoms’

and the other two groups. The patients assessed as unwell with psychiatric disorders and those who were unwell with NFPD had a median number of symptoms of 8 and 8.5 respectively. Figure 2 shows that the well group has fewer symptoms, median 3, compared to 8 in the unwell psychiatric and NFPD group.

The overall health status of the second 1000 and bridging 100 are shown in Table 3. 79 patients were now well who had had previous psychiatric disorders, including NFPD. The diagnoses by ICD-10 chapter, whether the condition was main or incidental and whether or not it was related to Gulf service, are shown in Table 4. There remain few cases in Chapters 2, 4 and 13 and considerably fewer in Chapters 10 and 11.

Table 5 compares the main diagnostic groupings of the first 1000, the bridging 100 and current series. The number who are well has risen sharply from 53 in the first 1000 to 485 with no diagnosis and 796 overall in the second 1000. Patients with Chapter 18 diagnoses have fallen from 39% in the first 1000 to less than 1% in the second 1000.

The psychiatric diagnoses for the first 1000, the bridging 100 and the second 1000 patients are shown in Table 6. Post traumatic stress disorder (PTSD) was the most common psychiatric disorder found, most being as a result of Gulf service. Non-Gulf related PTSD was a consequence of experiences in Northern Ireland, the Falklands or former Yugoslavia. Table 7 shows the activity or not of the psychiatric diagnoses and whether related to Gulf service. Of the unwell patients, the proportion with psychiatric diagnoses compares closely with the findings in the first

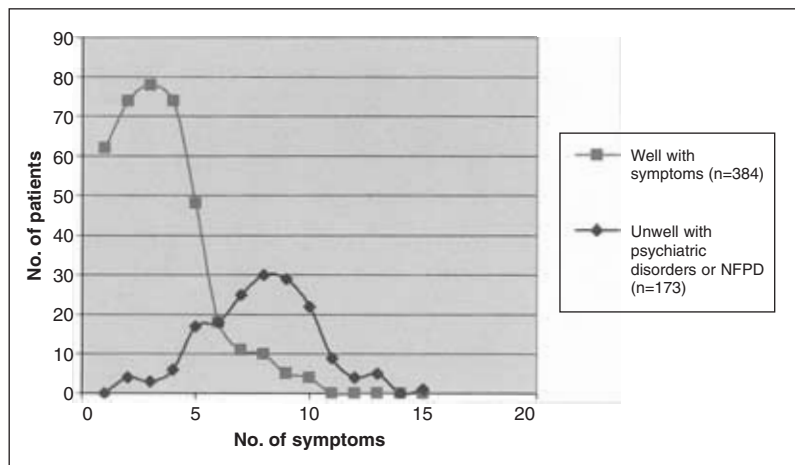


Fig 2. Number of symptoms per veteran

Table 3 Diagnosis-based findings for second 1,000 and Bridging 100 Gulf veterans

	Bridging 100 Gulf veterans (n=100)		2nd 1,000 Gulf veterans (n=1,000)	
Well	68	(68)	796	(80)
Well completely (asymptomatic)	10	(10)	101	(10)
Well with symptoms but no disease	10	(10)	384	(38)
Well with incidental diagnoses	48	(48)	311	(31)
Only psychiatric conditions ¹	5	(5)	63	(6)
Only organic conditions	34	(34)	232	(23)
Both ¹	9	(9)	16	(2)
Unwell	32	(32)	204	(20)
Only psychiatric conditions ²	14	(14)	143	(14)
Only organic conditions	6	(6)	31	(3)
Both ²	12	(12)	30	(3)

Values are numbers (percentages) of patients

¹ Includes 11 patients who have been given a classification of NFPD in the Bridging 100 and 20 in the second 1,000

² Includes 8 patients who have been given a classification of NFPD in the Bridging 100 and 49 in the second 1,000

Table 4 Diagnoses in second 1,000 Gulf veterans, by ICD-10 chapter

Chapter title (codes)	Any condition (n=1,000)		Main condition (n=164)		Incidental condition (n=332)		Gulf related (n=103)	
	1-Certain infectious and parasitic diseases (A00-B99)	3	(0)	-	-	3	(1)	1
2-Neoplasms (C00-D48)	16	(2)	6	(4)	10	(3)	-	-
3-Diseases of the blood and the blood-forming organs and certain disorders involving the immune mechanism (D50-89)	2	(0)	-	-	2	(1)	-	-
4-Endocrine, nutritional, and metabolic diseases (E00-90)	15	(2)	1	(1)	13	(4)	-	-
5-Mental and behavioural disorders (F00-99) of which psychiatric disorders (F10-43)	204 194	(20) (19)	134 129	(82) (79)	73 63	(22) (19)	92 91	(89) (88)
6-Diseases of the nervous system (G00-99)	36	(4)	3	(2)	32	(10)	1	(1)
7-Diseases of the eye and adnexa (H00-59)	4	(0)	-	-	4	(1)	1	(1)
8-Diseases of the ear and the mastoid process (H60-95)	6	(1)	-	-	6	(2)	1	(1)
9-Diseases of the circulatory system (I00-99)	32	(3)	2	(1)	29	(9)	-	-
10-Diseases of the respiratory system (J00-99)	62	(6)	3	(2)	59	(18)	4	(4)
11-Diseases of the digestive system (K00-93)	34	(3)	1	(1)	32	(10)	2	(2)
12-Diseases of the skin and subcutaneous tissue (L00-99)	48	(5)	1	(1)	47	(14)	1	(1)
13-Diseases of the musculoskeletal system and connective tissue (M00-99)	58	(6)	9	(5)	49	(15)	2	(2)
14-Diseases of the genitourinary system (N00-99)	19	(2)	3	(2)	15	(5)	-	-
17-Congenital malformations, deformations and chromosomal abnormalities (Q00-99)	2	(0)	-	-	2	(1)	-	-
18-Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-99) of which, no diagnosis in any other chapter	2 1	(0) (0)	- -	- -	2 1	(1) (0)	1 1	(1) (1)
19 and 20-Injury, poisoning and certain other consequences of external causes and external causes of morbidity and mortality (S00-Y98)	6	(1)	1	(1)	5	(2)	1	(1)
21-Factors influencing health status and contact with health services (Z00-99) of which, no diagnosis in any other chapter	506 485	(51) (49)	- -	- -	- -	- -	- -	- -
No diagnosis in any chapter ¹	44	(4)	-	-	-	-	-	-

Values are numbers (percentages) of patients

Some patients had several diagnoses within the same ICD-10 chapter

There were no patients with diagnosis in Chapter 15-Pregnancy, childbirth and the puerperium or 16-Certain conditions originating in the perinatal period

¹Of the 69 patients who were given a classification of NFPD, 44 had no other diagnosis

1000 (2). Comparing the first 1000 with the second 1000 patients, 115 (12%) and 87% (9%) respectively were diagnosed as having PTSD, and 49 (5%) and 91 (9%) respectively with depression.

Out of the total of 87 patients with PTSD, 74 (85%) were now civilians and 13 (15%) were still serving when assessed at the MAP. Forty six (53%) of these patients had been diagnosed with their condition prior to attending the MAP and 37 (43%) were diagnosed at the MAP; their condition subsequently confirmed by a consultant

psychiatrist. Four (5%) were diagnosed later. Eighteen (21%) of patients were diagnosed with PTSD whilst still serving.

Discussion

We report the second 1000 self-selected patients who attended the GVMAP. The limitations of and the extent to which the first 1000 patient cohort broadly represents Gulf War veterans have previously been discussed and still apply. The majority (796; 80%) (groups i, ii and iii) were well, albeit many with symptoms or organic disease but

Table 5. Most frequent conditions diagnosed in the first 1,000, the Bridging 100 and second 1,000 Gulf War veterans, by ICD-10 chapter

Chapter title (codes)	1st 1,000 Any condition (n=1,000)		Bridging 100 Any condition (n=100)		2nd 1,000 Any condition (n=1,000)	
2-Neoplasms (C00-D48)	41	(4)	3	(3)	16	(2)
4-Endocrine, nutritional, and metabolic diseases (E00-90)	61	(6)	6	(6)	15	(2)
5-Mental and behavioural disorders (F00-99) of which psychiatric disorders (F10-F43) ¹	325 219	(33) (22)	26 21	(26) (21)	204 194	(20) (19)
6-Diseases of the nervous system (G00-99)	104	(10)	14	(14)	36	(4)
9-Diseases of the circulatory system (I00-99)	43	(4)	7	(7)	32	(3)
10-Diseases of the respiratory system (J00-99)	155	(16)	13	(13)	62	(6)
11-Diseases of the digestive system (K00-93)	137	(14)	11	(11)	34	(3)
12-Diseases of the skin and subcutaneous tissue (L00-99)	86	(9)	9	(9)	48	(5)
13-Diseases of the musculoskeletal system and connective tissue (M00-99)	182	(18)	9	(9)	58	(6)
14-Diseases of the genitourinary system (N00-99)	55	(6)	3	(3)	19	(2)
18-Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-99) of which, no diagnosis in any other chapter	387 90	(39) (9)	2 -	(2) -	2 1	(0) (0)
21-Factors influencing health status and contact with health services (Z00-99) of which, no diagnosis in any other chapter	156 53	(16) (5)	29 20	(29) (20)	506 485	(51) (49)
Diagnoses in other chapters	88	(9)	10	(10)	23	(2)
No diagnosis in any chapter (NFPD)	47	(5)	8	(8)	44	(4)

Values are numbers (percentages) of patients

Some patients had several diagnoses within the same ICD-10 chapter

¹Although alcohol and substance abuse (F10-19) were excluded from the psychiatric disorders in the first 1,000 paper they have been included here for comparative purposes

functioning normally. There were 101 veterans (10%) who were completely well ie totally asymptomatic, and 248 (25%) well with identified organic disease, of which 16 also had psychiatric disorder.

There were 204 unwell patients, of whom 173 (85%) had psychiatric disorders, 31 (15%) with organic disease only and 30 (15%) had both psychiatric and organic disorders. Active post traumatic stress disorder was found in 77 (38%) and taken in isolation or with comorbidity (6,7) was the most common psychiatric disorder seen (see Tables 6 and 7).

To make comparisons between the first and second 1000 veterans we have examined potential differences in diagnostic criteria between the first and second 1000 GVMAP patients by means of the bridging 100 cases, where complete agreement over main diagnosis suggests that diagnostic criteria were similar. The differences between the findings of the first 1000 and our series was due to the former authors giving Chapter 18 diagnoses where no firm diagnosis was possible (Tables 4 and 5). We also had more information and therefore we were able confidently to classify a substantially larger number of veterans' conditions than previously.

The proportion of veterans who were assessed as being well in the second series is much greater and there is a much lower incidence of Chapter 18 diagnoses (1% compared with 39%) for the reasons explained above.

The published results of various veterans' assessment programmes neither indicate an

abnormal incidence of disease which might be expected to result in worsening health with time, nor do they indicate the presence of any unique Gulf related condition (2,8,9,10). Further, epidemiological studies have shown no excess of hospital admissions of veterans or birth defects in veterans' children (11) and only a small excess of road traffic deaths (12,13). Other studies of Gulf veterans have shown that a proportion may have a greater incidence of common non-specific symptoms when compared with their non-deployed counterparts (14,15). On the basis of our assessment at GVMAP our clinically derived series supports the view that such features do not provide evidence of a Gulf War related syndrome (16). Unwin *et al* (14) found that veterans' disability was generally not severe and that there was no evidence of increased marital breakdown or unemployment. With this recent more extensive evidence, we were able to make more precise assessment about patients' health than was previously possible. This is why, given our definitions, there is a much lower incidence of Chapter 18 diagnoses in our series.

In the second cohort, 796 veterans were well of which 101 (13%) were completely well, 384 (48%) were well with symptoms, 248 (31%) with organic disease ie well controlled medical conditions such as diabetes mellitus, asthma or eczema and 79 (10%) had an inactive psychiatric condition. Gulf service related conditions included injuries, bronchial asthma and skin conditions. A skin condition e.g. eczema or respiratory condition e.g. asthma (16,17) occurring *de novo* six months after return

Table 6. Psychiatric diagnoses for first 1,000, the Bridging 100 and second 1,000 Gulf veterans

		1st 1,000 Gulf veterans (n=1,000)		Bridging 100 Gulf veterans (n=100)		2nd 1,000 Gulf veterans (n=1,000)	
Any psychiatric disorder		467	(47)	40	(40)	252	(25)
(ICD-10)							
F43.1	Post traumatic stress disorder without co-morbidity	115	(12)	16	(16)	87	(9)
	with co-morbidity	87	(9)	13	(13)	40	(4)
	Depression	28	(3)	3	(3)	47	(5)
	Alcohol abuse	17	(2)	2	(2)	27	(3)
	Substance abuse	11	(1)	2	(2)	24	(2)
		2	(0)	1	(1)	12	(1)
F32	Depression	32	(3)	1	(1)	64	(6)
F10.1	Alcohol abuse	29	(3)	-	-	21	(2)
F19	Substance abuse	9	(1)	1	(1)	16	(2)
F43.2	Adjustment disorders	34	(3)	4	(4)	10	(1)
F41	Anxiety disorders	11	(1)	-	-	6	(1)
F43.9	Reaction to severe stress	4	(0)	-	-	-	-
F20, F30, F31	Other psychiatric disorders	5	(1)	1	(1)	5	(1)
No formal psychiatric diagnosis ¹		268	(27)	19	(19)	69	(7)

Values are numbers (percentages) or patients

Some patients may have more than one diagnosis

Includes both well and unwell patients

¹268 of the first 1,000 are thought to have had a psychiatric disorder or were part of the routine referral system of Oct '94-Oct '95; 19 of the Bridging 100 and 69 of the second 1,000 were also thought to have had a psychiatric disorder but no confirmed diagnosis was available from a Consultant psychiatrist

Table 7. Psychiatric diagnoses by disease activity and Gulf service

		All psychiatric disorders (n=1,000)		Unwell Active psychiatric disorders		Well Inactive psychiatric disorders		Gulf related psychiatric disorders	
Any psychiatric disorder		252	(25)	134	(13)	60	(6)	91	(9)
(ICD-10)									
F43.1	Post traumatic stress disorder without co-morbidity	87	(9)	77	(8)	10	(1)	80	(8)
	with co-morbidity	40	(4)	31	(3)	9	(1)	37	(4)
	Depression	47	(5)	46	(5)	1	(0)	43	(4)
	Alcohol abuse	27	(3)	26	(3)	1	(0)	23	(2)
	Substance abuse	24	(2)	24	(2)	-	-	23	(2)
		12	(1)	12	(1)	-	-	12	(1)
F32	Depression	64	(6)	32	(3)	32	(3)	5	(1)
F10.1	Alcohol abuse	21	(2)	16	(2)	5	(1)	3	(0)
F19	Substance abuse	16	(2)	14	(1)	2	(0)	1	(0)
F43.2	Adjustment disorders	10	(1)	3	(0)	7	(1)	2	(0)
F41	Anxiety disorders	6	(1)	4	(0)	2	(0)	2	(0)
F20, F30, F31	Other psychiatric disorders	5	(1)	3	(0)	2	(0)	-	-
No formal psychiatric diagnosis		69	(7)	-	-	-	-	-	-

Values are numbers (percentages) of patients

from the Gulf was not considered to be related to Gulf service or exposures.

Engel *et al* (19) have made a study of multiple unexplained physical symptoms (MUPS) in primary care and the community which has relevance to military experience. Their results suggested that MUPS was a marker of psycho-social distress rather than medical illness and those with MUPS were the least satisfied with their medical care. Kroenke *et al* (20) observed that the number of comorbid physical symptoms is to the detection of anxiety and depressive disorders in primary care as the erythrocyte sedimentation rate is to the detection of inflammation. They found only 4% of patients with less than two physical symptoms on a 15 item checklist had an

anxiety or depressive disorder. However, as the number of symptoms rose, so did the likelihood of psychiatric disorder (see Figure 3). This corresponds closely with what we have observed with median values of 3 symptoms in well patients with symptoms and 8 in those with psychiatric illness or NFPD. The number of symptoms per individual seems more important than the pattern. The pattern of symptoms in those who are well with symptoms is so similar to the other two groups as to suggest the former have either a psychosomatic or a somatisation disorder.

There were 69 patients who we could only classify as NFPD (Tables 6,7). They had not had psychiatric evaluation either because they had not been referred or they did not

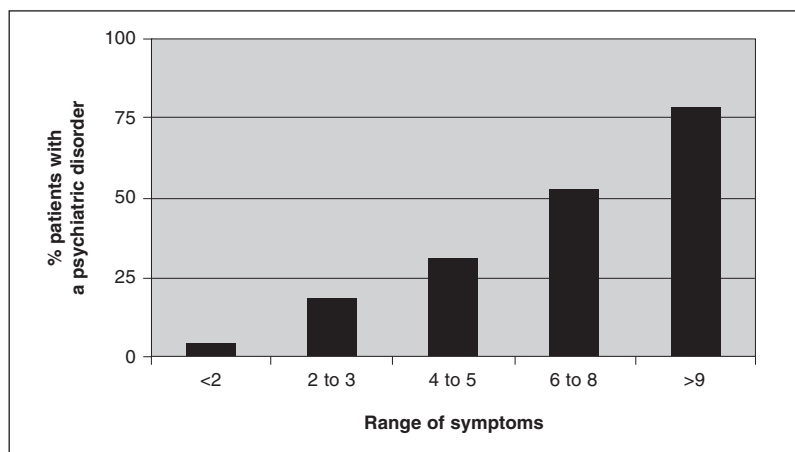


Figure 3. Multiple unexplained physical symptoms adapted from Kroenke et al 1997

wish to be referred, or the outcomes of referral were not available. We suspect that additional cases of PTSD are in the NFPD group, their dysfunctional behaviours having been misunderstood and misdiagnosed.

The analysis of this series highlights the importance of providing adequate psychiatric services for serving and ex-Service personnel. It should be noted that 43% of PTSD cases were diagnosed *de novo* at the MAP 6-7 years post conflict. Some of these patients had previously consulted civilian psychiatrists without military experience and their condition not recognised. Similar patients are being encountered.

Conclusions

The second 1000 veterans who attended the GVMAP had similar sociodemographic features to the first 1000 (Table 1). Some were polysymptomatic, having symptoms very similar to those seen in NHS hospitals. However, more information concerning Gulf veterans' health is now available and the intervening time period since the conflict is longer, allowing medical features to be assessed more fully. Fewer diagnoses of "ill defined symptoms, signs and abnormal clinical laboratory findings" (Chapter 18 ICD-10(3) were required to be made. The commonest Gulf related illnesses were psychiatric, in particular post traumatic stress disorder (87;34.5%). Medical conditions involved (515) of patients (Table 2). As previously suggested (1), unwell veterans' illnesses have many common features and Gulf War veterans are no different.

Key Message

- Symptoms do not equate with ill health.
- Those with organic disease had common-place illnesses.
- The more symptoms, the more likely psychiatric disorder - "the psychiatric ESR".
- Most common Gulf related illnesses are psychiatric, the most frequent being PTSD with out without co-morbidity.
- Must have ready access to PTSD treatment services.

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