

## ORIGINAL PAPERS

### Psychological Morbidity During The 2002 Deployment To Afghanistan

BH Campion, JGH Hacker Hughes, M Devon, NT Fear

#### ABSTRACT

Questionnaires were completed by military personnel on arrival (n=1,696) in Kabul, Afghanistan and then again on departure (n=1,134). Analysis of the 113 personnel who completed both the arrivals and departures questionnaire revealed a lower alcohol use score after deployment (AUDIT mean difference (post-deployment - pre-deployment) = -0.39, 95% confidence interval (CI) = -1.25 - +0.47) and no significant change to mental health (GHQ mean difference = 0.55, 95% CI = -0.07 - +1.17). An increase in psychosomatic symptoms (GHQ A mean difference = 0.22, 95% CI = -0.03 - +0.47) is considered to result from the adverse conditions, but it is not supported by other mental ill health markers. In conclusion, there appeared to be no negative effect on mental health from deployment to Afghanistan.

#### Overview

In 2002 the UK's Air Assault Brigade was deployed to Kabul, Afghanistan to stabilise a rapidly deteriorating political situation. This elite brigade formation had earlier completed a psychological risk assessment conducted by the military Department of Community Mental Health (DCMH) in their home location of Colchester, following a rapid deployment to Sierra Leone in 2001, which had demonstrated the unit's fitness for purpose(1). The Brigade deployed to Afghanistan with DCMH staff embedded and they initiated a comparable risk assessment process.

From early in the deployment a secure air-head at the partially destroyed Kabul International Airfield was established. On arrival in theatre troops were briefed at the air-head on the environmental, political and military situation before moving on to base areas. By early February 2002, the military situation had settled such that a psychological element could be added.

This paper reports the results of this process.

#### Methods

At their arrival briefing, personnel were asked to complete a questionnaire incorporating the General Health Questionnaire (GHQ 28)(2), the Alcohol Use Disorders Identification Test (AUDIT)(3) and some demographics. The questionnaire was designed as a single A5 page, double-side printed, making it sufficiently non-threatening to ensure a high response rate. On departure from Afghanistan, personnel were asked to complete a second copy of the questionnaire. Soldiers were informed that military mental health practitioners would contact them confidentially if results revealed any cause for concern, and that commanders would be informed only about pooled results. Participation was voluntary and informed signed consent was requested.

A long wait in the air terminal resulted in near universal completion of the questionnaires. Overall, 1,696 personnel completed the questionnaire on arrival (94%) and 1,134 on departure (96%) of which 113 personnel completed both questionnaires. The demographic characteristics of those completing the

Table 1. Demographic characteristics of those completing the arrival and departures questionnaires.

Characteristic	Arrivals sample (n=1696)		Departures sample (n=1134)		Personnel completing both (n=113)	
	N	%	N	%	N	%
Gender						
Males	1523	94	1026	98	108	96
Females	92	6	25	2	5	4
Missing	81		83		-	
Rank						
Soldiers	574	34	467	41	30	27
Non-commissioned officers	892	53	511	45	56	58
Officers	230	14	151	13	17	15
Missing	-		5		-	
Mean age (standard deviation) (years)	28.0 (7.1)		27.3 (6.6)		29.4 (7.4)	

Capt BH Campion  
QARANC  
Senior Nursing Officer  
DCMH Colchester  
Email:  
dcp-cpno@brizenorton.raf.mod.uk

Dr JGH Hacker Hughes  
Academic Centre for  
Defence Medicine,  
Institute of Psychiatry,  
Kings College, London

Ms. M Devon,  
DCMH Colchester

Dr NT Fear  
Academic Centre for  
Defence Medicine,  
Institute of Psychiatry,  
Kings College, London

Table 2. Mean AUDIT and GHQ scores on arrival and departure, mean differences and associated 95% confidence intervals (CI.)

Score	Arrival		Departure		Difference	
	N	Mean (95% CI)	N	Mean (95% CI)	N	Mean (95% CI)
AUDIT	113	7.2 (6.3-8.0)	113	6.8 (5.8-7.8)	113	-0.39 (-1.25-0.47)
GHQ	109	0.63 (0.33-0.94)	113	1.23 (0.66-1.80)	113	0.55 (-0.07-1.17)

Table 3. Mean AUDIT and GHQ scores on arrival and departure and associated 95% confidence intervals (CI.)

Score	Arrival		Departure		Difference		
	N	Mean (95% CI)	N	Mean (95% CI)	t	Degrees of freedom	P-value
AUDIT	1680	7.2 (7.0-7.4)	1134	9.1 (8.7-9.4)	-9.63	2812	<0.001
GHQ	1654	0.95 (0.85-1.05)	1126	1.63 (1.47-1.80)	-7.27	2778	<0.001

questionnaires are shown in Table 1.

Means and mean differences (for the paired data) for GHQ and AUDIT scores together with the corresponding 95% confidence intervals were calculated. Unpaired t-tests were performed to compare all arrival and departure questionnaires. Statistical significance was defined at the  $P < 0.05$  level. All analyses were conducted using the statistical software package, STATA (version 8.2).

## Results

Table 2 shows the results of the analysis of the 113 personnel who completed both the arrivals and departures questionnaire. AUDIT scores were lower on departure whilst GHQ scores were slightly higher – these differences did not reach statistical significance.

Further investigation of the four components of the GHQ score revealed that GHQ A (which covers psychosomatic items) accounted for the increase (GHQ A mean difference = 0.22, 95% CI = 0.33 - 0.47).

Analysis of all arrival and departure questionnaires revealed a different picture with statistically significant increases in both AUDIT and GHQ scores on departure (Table 3).

Of the 113 personnel who completed both, 4% were female ( $n=5$ ), 27% were soldiers ( $n=30$ ), 58% non-commissioned officers (NCOs) ( $n=66$ ) and 15% officers ( $n=17$ ) with a mean age of 29.4 years (standard deviation = 7.4 years).

## Discussion

This study was completed for command to demonstrate fitness for purpose of soldiery, and to offer a confidential method of requesting mental health support outwith the chain of command. Consequently, only a small sample could be analysed for research purposes, which is accepted as a fundamental flaw. The evidence gained did demonstrate a psychologically healthy unit on return from deployment. This evidence, reinforced by other military performance indicators, provided command with confidence to engage in further deployments to Macedonia and Northern Ireland for the unit soon after their return from Afghanistan.

The principal finding of this audit was that the mental health of these soldiers did

not deteriorate over the course of this deployment, despite regular action and austere conditions. These findings reinforce those of Campion(4), Shapland(5) and Hacker Hughes(6) but differ from those of Hoge *et al*(7). All of these studies were of front line 'elite' units. Our measures were administered in theatre, rather than at a period following return to home base.

For those who have undertaken operational deployments, a finding of 'no change' or even reduced psychological ill-health on return from deployment is an entirely expected result. We would question a soldiers' mental health if they were not happier coming back than going. If that is the case, why do Hoge *et al*(7) report different reactions of American troops on their return home?

The US practice of deployments between 6 and 12 months, outlined by Hoge *et al*(7), is generally accepted by UK commentators as the major source of the mental ill-health associated with the late Vietnam War and the current Iraq deployment(8-10). British forces have evolved a current maximum deployment period of 6 months over the long experience of Northern Ireland. History informs us of the dangers of longer term deployments(11).

Wessely(10) highlights 'the seduction of screening'. No serving soldier will argue with the assertion that the only viable form of psychological screening is a robust basic training package, with an attrition rate that forces those 'not up to it' to be rejected. It could be argued that the GHQ and AUDIT are inappropriate measures to add confidence to command of their units' fitness for purpose'. Whilst this is accepted, this audit was not looking for post traumatic stress disorder (PTSD) – accepted as being rare in the British military – but focussed on health.

It has long been known that austere conditions result in physical degradation; from the Crimea War to the Gulf War, minor illness rates have been found to be considerably higher than in home bases. Living in tented accommodation in Kabul in winter, set at 2,000m, with temperatures dipping to  $-26^{\circ}\text{C}$  could be considered 'austere'(8,9).

Thus the GHQ 28 A mean difference is surprisingly low and could be considered as evidence of the robustness of this elite unit.

Alcohol was available from mid-February, covering the bulk of the period of the study, but was controlled. The US practice of making all deployments 'dry' has had a positive effect on alcohol use rates, but this practice has resulted in many US deployed units to be relatively isolationist, as all other NATO contingents have more liberal drinking policies. To commanders, their concern is not a soldier's occasional binge, as long as it does not result in disciplinary action, but in ensuring that safety-critical tasks are not carried out under the influence of alcohol. Both the US and UK approaches have merit; we believe it should be a commander's decision as to which approach should be taken.

The GHQ-28 was designed for use in general practice and so is, arguably, among the most valid of all psychological measures for use in a healthy population. The Hoge *et al* study(7), whose outcomes included major depression, generalized anxiety, and PTSD, could be seen as fundamentally flawed in that it was using measures designed for mentally ill patients in a healthy population. We know that the soldier will invariably complete scripts to demonstrate what he wants to demonstrate. US troops returning from long deployments in Iraq may be inclined to exaggerate in case there will be compensation available in the future. This situation is supported by Wessely(10), where he describes 'the paradox of health'. Similarly, our audit's greatest achievement is to give a confidential means of soldiers ticking the highest score for everything, knowing that this will result in one of the mental health team offering some help. Those not wanting help will be inclined to tick 'no' for everything.

### Conclusion

Our results reinforce the findings of Hacker Hughes *et al*(6), in that it is premature to conclude that any operational deployment

will have serious adverse psychological damage on all those deployed. Indeed, these results again remind us that where highly trained, selected units with high morale are deployed on focussed operations with positive outcomes, soldiers do not have to develop mental illness, regardless of what the media would have us believe. After all, British Forces are volunteers; they volunteer to go on deployment because that is what they have decided they want to do with their lives.

### Declaration of Interest

BC, JHH and MD are employed by UK Defence Medical Services. NTF is employed by King's College London, Institute of Psychiatry.

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