

# UK Gulf War Health Professional Veterans' Perceptions of and Recommendations for Pre-Deployment Training: The Past Informing an Uncertain Future?

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## Abstract

**Background:** The Gulf War is regarded as a unique war due to its unconventional weaponry threat and the rare deployment of a sizeable number of British non-regular troops. Using data collected in 1991, 95 non-regular health professional veterans gave perceptions of their pre-deployment military training and their related recommendations.

**Participants:** The first cohort of participants was accessed opportunistically and they invited a second cohort of veterans known to them and in similar military health professions. Reservist participants (on the Reserve list) almost matched those in the Voluntary Services (e.g. Territorial Army) in number.

**Method:** Qualitative and quantitative data were gathered at six months post War in the first of three six monthly postal questionnaire surveys.

**Results:** Overall, most veterans found training adequate or good but some one-third (particularly Reservists) found it poor or bad in content and delivery. The minority recipients of stress management training found it lacked personal relevance and attracted trainers' culture-related derision. Non-recipients believed that had it been received it could have reduced pre-deployment stress.

**Conclusion:** Although many of the respondents' recommendations have been met following the Gulf War, arguably fundamental change to the military culture is of a slower pace.

**Keywords:** Gulf War; Reservists; Pre-deployment Training; Stress management training

**Abbreviations:** TA: Territorial Army, CBW: Chemical Biological Warfare, SPSS: Statistical Package For The Social Sciences; VS: Voluntary Services, HPVs: Health Professional Veterans

## Introduction

### The Context and Uniqueness of the Gulf War and its Relevance to the Present

The Gulf War (GW) 1991 is the only modern multi-national war in which all participant United Kingdom (UK) troops were prepared for chemical/ biological warfare (CBW). The Iraqi use of the chemical agent chlorine in Iraq in 2007 [1] and later sarin in Syria in August 2013, both against civilian populations, demonstrate that where there is possession, this threat would seem to persist. In November 1990, in response to the size of the Iraqi conventional and

unconventional weaponry threat, the potential for high casualties and an acknowledgement by the UK Government of the insufficient number of regular military medical personnel, part-time military Voluntary Services (VS) health professionals (doctors, nurses, and professions allied to medicine) were invited to volunteer [2]. Although some Territorial Army (TA) VS personnel responded positively, the number was insufficient and consequentially those on the ex-Regular Reserve List were called-up: an action not undertaken since the Korean War (1950-53). Most of the called-up and volunteer troops joined regular troops (deployed some months

earlier) in Saudi Arabia from December 1990 to early January 1991 [2]. In the UK, the importance of the impending War was hailed as a new learning source for civilian nurses both from stand-by for war casualties in UK hospitals and from active military service in Saudi Arabia [3].

### The Pre-Deployment Stressors

Several United States (US) authors [4,5] report that for US Reservists, pre-deployment to the GW was an unusually short time in which to make domestic preparations; wind-up civilian work-life, mobilise into new military groups and receive training specific to the requirements of deployment. Some US Reservists reported dissatisfaction and distress, because they had not anticipated either their call-up, or the stressful transition from civilian to soldier [5]. No published UK research could be found that mirrors the above US findings but it is likely that some degree of similar disruptive experience arose for UK Reservists as neither of these nations' populations lived or worked in military establishments. The Coalition's military personnel, drawn from 30 nations, also shared the anticipatory stress associated with Iraq's threatened use of CBW agents. In a post war review article, it was suggested that this unconventional threat produces intense fear in troops [6]. It is described as a potent form of psychological warfare (whether it is real or not) and one that does not discriminate between combatants and non-combatants [7]. Several UK HPVs [8,9] have tested that the CBW threat was their greatest source of fear. Furthermore, in a study of UK troops during a real GW missile attack, O'Brien and Payne found that despite training in the use of protective suits and medication, troops' acute anticipatory fear was triggered to the point of panic rather than reduced [10]. Above all, Coalition troops entered this war knowing that as Iraq had used CWB during the Iraq/ Iran War of 1980-88 [11], history could repeat itself.

### Pre-Deployment Training and the Military Culture

The ex-military writer McManners put forward the view that UK military training facilitates the transition from civilian to soldier with the fundamental aim of breaking down the entrant's identity and values by consent and replacing them with those that guide, govern and sustain the military culture [12]. Service in the GW, meant re-entry for some civilian nurses and a radical change from civilian nursing roles and responsibilities to a higher level than they were hitherto accustomed. One British female Reservist nurse described positively her 'sound' military training in the UK before her deployment to a field hospital in Saudi Arabia [8]. She learned medical skills for the treatment of casualties contaminated CBW agents and underwent the British Army Trauma and Life Support training programme. She recorded that as there were only a few doctors in each field hospital in the GW, her role and responsibilities were comparable to those of a junior doctor. Before the GW, Brooking [13] wrote about the role of TA medical and nursing units under contemporary war conditions She suggests that those treating battle casualties, would become party to war's failure in terms of human vulnerability, rather than its military and

political success. Furthermore, the usual occupational stressors found in civilian medical and nursing settings could become heightened with the additional stressors that affect all personnel in war-service. Being in a military health professional role does not exempt the person from fulfilling that of the soldier. This requires discipline, obedience, conformity and a strong sense of duty: qualities developed from early training [12]. At the time of the GW, McManners [12] questioned the appropriateness of the UK Army's culture of keeping 'a stiff upper lip' thereby perpetuating the macho 'ancient warrior type', given the deployment of some 1000 British female troops, some in frontline roles [14]. This cultural myth is believed to help individuals during adversity overcome being seen as weak and stigmatised as such by peers and those of higher rank [15]. Despite efforts by the military to counter stigma, this cultural element reportedly continues in the UK military to the present day [16].

## Methodology

### Design and Method

Using a longitudinal design comprising three postal questionnaire surveys, each six months apart, this article's data were collected in the first survey conducted some six months after the Gulf War's end in 1991. Following a pilot study that refined the questionnaire's content and format with 5 HPVs, the questionnaire comprised closed questions with opportunity for free text justification following each response. This mixed methods approach (qualitative and quantitative) maximised the potential for a greater depth of understanding of the HPVs' experiences than either method when employed alone [17].

### Sample Size and Selection

A total of 131 letters of invitation to participate in the study were distributed via an intermediary HPV nurse already known to the author. The first 57 HPVs responded positively and through them a further 38 militarily and professionally similar participants were contacted as a snowball technique. The final sample comprised: 47 Reservists (26 called up and 21 volunteers) and 48 VS volunteers (43 TA personnel and 5 Welfare Officers). Following a further round of study information-giving and consent-seeking, the estimated return-rate was high (71%), which suggests that the HPVs were keen to tell their story.

### Ethical Considerations

The general principles of doing no harm; informed consent; the acceptance of autonomy over of compliance, and respect for rights to privacy, anonymity and confidentiality were upheld throughout the research [18]. Authoritative military and academic advice was taken throughout the study to avoid potentially sensitive issues. All information forwarded to the HPVs cautioned them against breaching the Official Secrets Act. The data were held securely and in accordance with the Data Protection Act, 1987 and its update in 1998.

### Mode of Analysis

Quantitative dichotomous data were analysed using Statistical Package for the Social Sciences (SPSS) Version 20 and used logistic regression with a forward stepwise Wald as the main predictive test. Qualitative data in the form of the HPVs' comments were examined first by two researchers independently identifying key words or phrases then categorised as key word or phrase labels. The latter were formulated to capture as closely as possible the meaning of the HPVs' original words or phrases, as recommended by Krippendorff [19]. The two researchers then made cross comparisons to reach consensus as to themes and sub themes.

### Results

#### Characteristics of the Participant Sample

Personal, professional and military characteristic data were formatted mainly as dichotomous variables to facilitate the use of Logistic Regression, as shown in Table 1. The mean age of participants was 37. When the figures for the civilian occupations of the 95 HPVs were cross tabulated with the HPVs' qualifications, 67 held nursing qualifications and of these, 49 (73%) worked as Registered General Nurses; 4 (6%) as Registered Mental Nurses, and the remaining 14 (21%) were State Enrolled Nurses. All other health professionals other than combat technicians worked in the same civilian professional roles as in the GW. Combat medical technicians (similar to civilian ambulance paramedics) worked in non-health civilian roles prior to the GW. Of the 95 HPVs, 27 (28%) had previous warfare experience, of whom, 17 (17%) were in the Reserve, 10 (11%) were in the TA VS and the remaining 68 (72%) had no experience. The average length of time spent in the Gulf was 2.7 months. When the HPVs' data for 'length of time in the Gulf' were compared with their deployment military categories using a Mann-Whitney U test, Reservists were found to have spent less time in deployment (mean rank=37.16) than those in the VS who spent longer (mean rank = 58.61) and this difference was significant (U=618.500, Z= -2.414, p<0.01). This suggests that Reservists were deployed later to the Gulf than those in the TA VS.

**Table 1:** The HPVs' personal and military characteristics.

Variable	Labels	Values*	N	%
Sex	Female	1	45	47
	Male	0	50	53
Totals			95	100
Civilian occupation	Nursing	1	64	67
	Other health roles	0	28	33
Totals			92**	100
Parenthood	Has children	1	36	38
	No children	0	59	62
Totals			95	100
Military category	Reserve	1	47	49
	Voluntary services	0	48	51

Totals			95	100
Deployment categories	Reservist called-up	1	26	27
	Reservist and VS volunteers	0	69	73
Totals			95	100
Rank	Officers	1	56	59
	Other Ranks	0	39	41
Totals			95	100
GW occupation	Nurses	1	68	72
	Doctors and PAMs	0	27	30
Totals			95	100
Experience of warfare	Experienced	1	27	28
	No experience	0	68	72
Totals			95	100

#### The HPVs' Receipt of Training and Perceptions of its Quality

During the pre-deployment phase, most of the 95 HPVs received training at home-based military establishments, although some training occurred in the Gulf. When asked to give their opinion of 'the quality of training' using a four-point value scale, 21 (22%) HPVs indicated that it was 'excellent', 45 (47%) said that it was 'adequate'; 23 (24%) found it to be 'poor', and 6 (6%) said that it was 'bad'. When the 95 HPVs' data for 'time spent in deployment' (in weeks) were compared with those for 'the quality of training' (reduced to a binary format using an independent t test), the 66 HPVs with 'adequate/ good training' spent longer in deployment (mean = 2.76, standard deviation = 0.498) than the 29 with 'poor/ bad training' (mean = 2.41, standard deviation 0.628). This difference was significant (f=6.33, t=2.86, df=93, p<0.05). Using the data for opinion of the quality of training as the dependent variable (DV) for logistic regression, the original four values were reduced to 'excellent/adequate training = 0' and 'poor/bad training' = 1' and this was entered with sample characteristics as the independent variables (IVs). As shown in Table 2, military category was found to be the best predictor of the HPVs' quality of pre-deployment training, with Reservists (value = 1) having a significantly increased likelihood of perceiving training as 'poor or bad' (value = 1).

**Table 2:** Logistic regression between the HPVs' perceived quality of training with sample characteristics (n=95).

DV*	IVs**	B	S.E.	Wald	df	Sig	R	Exp (B)
Quality of training category	Characteristic Predictor Category							
Poor/ bad quality of training	Reservists	1.396	0.486	8.23	1	0.004	0.096	4.08
	Constant	-6.609	0.387	17.9	1	0.000	13.59	0.2

The HPVs justified their responses to the quality of training question. Content analysis of their comments revealed some explanations for the difference in perceptions between Reservists with those in the TA as shown in Table 3. The TA HPVs who attended training given by TA trainers were the most positive but even when recording training as ‘adequate’ there were complaints. Some HPVs wanted more training related to unconventional weaponry CBW whereas others (with hindsight) portrayed that this was over-emphasised at the expense of the more common injuries from conventional weaponry that they had treated. The presentation of first aid was singled out as being too basic in comparison with the level of knowledge of the recipient audience. For some Reservists called-up as the latecomers to pre-deployment, UK-based training seemed to have run out of time and organisation by the end of 1990, thus they received some training after arrival in the Gulf. The following Reservist comment describes a somewhat chaotic scene at his UK-based training centre: ‘Total lack of co-ordination and shortage of staff - 60% of the time spent in queues.’ (Male Reservist volunteer, senior other rank CMT)

**Table 3:** The HPVs’ comments for the quality of pre-deployment training.

<b>Good and adequate training</b>
‘We were well versed in most aspects of concern (chemical/biological) in the Gulf’ (Male VS volunteer, senior other rank nurse)
‘I felt that the medical training was good but little personal preparatio3n.’ (Female Reservist, junior officer nurse)
‘Although adequate, I do not feel that first aiders from [Regiment’s name] should teach doctors and nurses how to perform first aid.’ (Male Reservist called-up, junior other rank nurse)
<b>Poor and bad training</b>
‘The TA who were trained in [Camp’s name erased] had a more comprehensive and intensive 2 weeks - run by TA. I was a TA volunteer in with recalled Reservists and trained by the {Regiment and Camp names} who were not equipped to train medics.’ (Female VS TA volunteer, senior officer nurse) ‘
No physical training; no weapons training; no upgrading training; no morale building; no team effort. Totally fed up. Incompetent officer leadership from C.O. down.’ (Male Reservist called-up, senior other rank CMT)

**Table 4:** The HPVs’ comments for the quality of stress management training.

<b>Training received and perceived as ‘useful’</b>
‘Began during pre-deployment training and continued in theatre [the Allied war zone in Saudi Arabia], mainly supported by hospital psychiatric team. Good regular opportunity to examine stresses of war, separation etc. with opportunity to seek help personally.’ (Male TA volunteer, junior officer nurse)
‘The psychiatric nurses in the unit [in the Gulf] all took it upon themselves to teach anxiety management to their respective departments but there was nothing from the army itself. All such innovations were at a local level.’ (Male Reservist volunteer, senior other rank CPN)
<b>Training received and perceived as ‘not useful’</b>
‘Given 48hrs after arrival. Treated as a joke by instructor, as though stress would not affect us.’(Male Reservist called-up, junior other rank CMT)
‘More geared to dealing with stress in others. Very little on dealing with self stress.’ (Female TA volunteer, senior officer nurse)
‘There was some mention of battle stress but it wasn’t related to non-combat staff.’ (Female TA volunteer, senior officer nurse)

‘Standard of presentation very poor. Not pitched at the level of a fairly high-powered audience, i.e. senior nurses and consultants. Little practical work. All this made me feel angry, resentful and ill prepared for what I might face.’(Female Reservist volunteer, senior officer nurse)
‘Mostly related towards chemical warfare and nil else. TA training in no way prepared me for me for a war in the Middle East with a different culture; increased risk of CBW; not being with my parent TA unit, i.e. alone.’ (Female VS volunteer; junior officer nurse)

### The HPVs’ Perceptions of Stress Management Training

Twenty-seven (28%) of the 95 HPVs recorded that they had received stress management training as a part of their overall training but of these, only nine described it as ‘helpful’. As no significant predictor was identified ( $p>0.05$ ) from logistic regression, its receipt or not was not associated with the HPVs personal or military characteristics. This is perhaps because this form of training did not appear to have a consensus as to its place within training or what its content should be. As shown in Table 4, of the recipients who found this training ‘helpful’, their comments suggest that they received it at different locations and times during pre-deployment and deployment in the Gulf. This diversity is illustrated first by the recipients of this training in the Gulf reporting positively on spontaneous out-reach stress management training sessions provided by nurses from a UK psychiatric team. Their positive comments indicate that not only was it informative in covering the main stressors and stresses, but sessions were backed up with practical support for the individual. In contrast, of the HPVs in receipt of stress management training within their main UK-based pre-deployment training, negativity was reported either concerning the derisive attitudes of the trainers in their delivery of psychological content, or because it was not directed sufficiently towards the HPVs’ perceived needs as individuals and as non-combatants. Non-recipients frequently commented that had this training been received, it could have been a useful coping mechanism for those affected by stress during pre-deployment. However, some HPVs believed that as the GW was unique, this precluded second-guessing either the stressors to be encountered or their reactions to them. As one HPV said: ‘No-one could foresee how we would feel, we were just expected to get on with the job.’ Finally, a few non-recipients suggested that this form of training was not of importance. Of these, one male Reservist medical officer appears to unwittingly accept the military cultural avoidance of stress effects by making light of such training : ‘It would not have been taken seriously. It probably would have been inappropriate.’

<b>Training not received but perceived as ‘could have been useful’</b>
Yes, it might have helped. It was difficult to talk to people due to everyone, including myself, trying to maintain an air of contentment/macho image.’ (Male Reservist volunteer, junior other rank CMT)
‘Yes needed. It was a totally unique experience and all of us had feelings that we’d never experienced before.’ (Female Reservist called-up, junior officer nurse)
‘We were expected to get on with it. Should have prepared people for how they may feel. Should have had talks from people who had been in a similar situation i.e. Falklands War.’ (Female Reservist called-up, junior other rank nurse)
‘For some, I think there should have been this sort of training. Some people changed out there and couldn’t cope at all.’ (Female Reservist called-up, junior officer nurse)
<b>Training not received and perceived as ‘not likely to be useful’</b>
‘I’m not sure what could have helped, short of the actual experience of being there. Very few people could relate personal experience to modern warfare.’ (Female Reservist volunteer, junior officer nurse)

### The HPVs’ Recommendations to Improve Training

The HPVs provided 97 recommendations to improve pre-deployment. Of these 21 (22%) were related to training. The first theme called for greater realism about the political context and nature of modern warfare from those with first-hand experience. ‘A talk/discussion from someone who in a down to earth way could talk about their experience of modern warfare.’ (Female Reservist volunteer, junior officer nurse) The second theme requested that training should be relevant to the circumstances of the war; their roles and skills within it, and acknowledge the differences between civilian with military practices. ‘The difference between service/civilian medical practices must be emphasised. Field conditions should be practised.’ (Male TA volunteer, junior officer nurse) ‘Weapons training. More time for extended role training before departure.’ (Female TA volunteer, junior officer nurse) ‘If this questionnaire is to be of use, it must emphasise the extreme lack of training/equipment at our disposal during the Gulf War that needs to be addressed.’ (Male Reservist called-up, senior other rank CMT). More emphasis upon psychological support to cope with the threats to person and also the stress of entry to new military groups was suggested in the third theme. ‘More emphasis upon the psychological changes that may effect people.’ (Female TA volunteer, senior officer nurse) ‘Briefings and lectures on living and working in confined areas and codes of behaviour between groups’ (Female TA volunteer, senior officer nurse). Finally, in the last theme, both Reservists and TA participants suggested increasing the annual military training for Reservists. ‘As a Reservist, we should have training sessions every year. ...you simply have to turn up x 1 per year, watch a film, collect £75 and go home.’ (Female Reservist called-up, junior officer nurse)

### Discussion

Research concerned with UK GW pre-deployment training for Reservists and VS TA personnel (or for any war preceding or after it) appears to be sparse, despite the general recognition that it sets the psychological tone for deployment with those the least trained liable to experience the greatest fear [12].

The HPVs first theme called for greater realism during training from those who have experienced war first-hand. This could suggest that with hindsight, the HPVs recognised that realism could have increased their sense of internal control and by association, their resilience to stress [20]. US research related to the later Iraq War and Afghanistan War claims that little has changed to diminish the pre-deployment stressors evident in and since the GW [21]. However, over the years since the GW, the UK Government has increasingly shown commitment to greater openness, support for and recognition of the value of Reserve forces, as reflected in the Armed Forces Covenant published in 2011[22] and in the presentation of policy in 2013 (both by the UK Ministry of Defence) for the restructuring of the Armed Forces [23]. In the present research, a sizeable number of GW Reservist veterans perceived their pre-deployment training as an inadequate preparation for the GW. As ex Regulars with greater experience of warfare but little on-going training since leaving the military, their lack of continuity could have made them feel less prepared than those in the TA VS with their regular peacetime training and possibly greater collective camaraderie. De la Billiere acknowledges the pressure upon Reservists in having to learn quickly following arrival in the Gulf due to their shortfall in their UK-based pre-deployment training [2]. Deficits in first aid training raised by some HPVs had already been reported in a negative appraisal of the British Army’s provision of first aid published around the time of the GW [24]. Shephard [25] suggests that the high prevalence of post-war mental health problems in veterans of the Falklands War, also reported by several other authors [26,27] led to an increase in psychiatric services for UK troops in the GW. However, despite new services, stress management training did not seem to have filtered down into pre-deployment training with any consistency. Instead it was described as piecemeal, open to derision, focussed mainly on combat casualty care, and delivered in the Gulf too late after distressing events (such as SCUD missile attacks). In contrast, what the HPVs clearly wanted was pro-active training in self-management techniques to bolster their coping mechanisms against the pre-deployment occupational and inter-military group stressors encountered but not foreseen.

Across time, several authors have reported upon improved methods of stress management training for non-combatants and combatants. These include psychiatric team outreach interventions [28,29] and the British Royal Marines' peer-delivered trauma risk management (TRIM) programme, designed to be pro-active in overcoming the stigma arising from battle stress [30]. However, these initiatives accentuate an ongoing military cultural dilemma. Nash (2007) [31] contends that the military purpose in war has no parallel in normal civilian life (and by inference neither has its culture). He refutes the usefulness of overt psychological training on the basis that leadership, training, and unit cohesion are adequate to support troops with stress reactions. In contrast, other authors acknowledge that the perceived stigmatising attitudes within the military culture can inhibit UK [17] and US troops [32] from accessing psychiatric help. Some authors argue that the way a military person sees him/herself is the strongest form of stigma, hence they recommend that for culture to change, effort needs to focus upon improving the locus of control of the individual [16]. Osorio et al. [33] report that between 2008-2011, the military has made considerable efforts to reduce stigma and of these, pre-deployment briefings may have been beneficial but in general little has been subjected to research evaluation.

It is over a quarter of a century since the end of the Gulf War. The HPVs recommendation for more relevant training is largely being met for the TA VS within the current restructuring of the military's manpower that will be ongoing until 2020 [34]. Major changes to training and other conditions for the newly named Army Reserve Forces (previously the TA) are reported on many online Government and military sites. Amongst these, aligning Reservists more closely with regular troops through shared training and unit 'pairing' is recommended. In the case of military medical services, the Reservists' training will be linked more closely to the competencies of the National Health Service. Training for the new Reserve can be as little as 19 days per annum for specialist units or one evening a week, several weekends and a 15 day training course per annum for others. However, recruitment has been slow and has not as yet reached the target of 30,000 new Reserve recruits by 2018-2019 [34]. Among the explanations for this shortfall, several authors suggest that Reservists consider and experience different challenges in their military service when compared to the Regular Forces. These are related to the role of the military in society and including challenges in the welfare of families, overcoming difficult employers; and an observed higher level of post deployment mental illness in Reservists than in Regulars [32,34]. It is of note that little reference to those on the Reserve List could be found beyond the hope that they would become recruits to the new Reserve Army [35].

### Limitations

Although considerable effort was made to recruit a sample of health professionals to represent those needed in the Gulf war zone,

the participants may not form a representative sample of all health professionals sent to the Gulf: a population of undeclared number. Furthermore, access to a suitable military control population in the UK was also not made possible. For these reasons, generalisation is limited. The findings from closed questions with qualitative justifications are believed however to provide a trustworthy representation of the perceptions of these particular GW HPVs.

### Conclusion

The HPVs' recommendations to improve training largely seem to have been addressed in current reforms to the military in the UK. In the case of stress management, although it may be unrealistic to foresee the eradication of war-related stress, ways of lessening its impact without weakening resilience has become a healthy aim. However, it seems that the military culture is slow to change. Perhaps this will be spurred on by new larger Reserve force which could find the 'ancient warrior-type' less appealing. For, separating the soldier from the civilian through training inevitably will become more difficult in a future where the Reservist is likely to be as openly mindful of family and civilian occupation as that of going to war.

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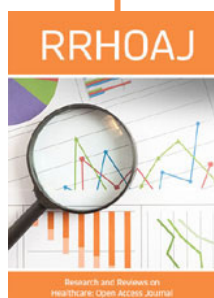
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