

# ASSESSING PSYCHOLOGICAL READINESS IN U.S. SOLDIERS FOLLOWING NATO OPERATIONS

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## INTRODUCTION

From April-July 1999, U.S. soldiers from the 1<sup>st</sup> Armored Division in Baumholder, Germany deployed to Albania, as part of Operation Allied Force, NATO's operation to drive Serbian military units out of Kosovo. Within three months (August-October 1999) after returning from the deployment, soldiers completed a command-directed integrated health assessment<sup>(1)</sup>. One component of the health assessment was the Psychological Screening Program. This paper reports the psychological screening results obtained from 1,043 soldiers during post-deployment from Albania, and compares these findings to psychological screening results obtained from two other samples of 1<sup>st</sup> Armored Division soldiers: those redeploying from Bosnia and those living in Garrison.

## — R E S U M E —

### EVALUATION DE L'APTITUDE PSYCHOLOGIQUE (HYGIÈNE MENTALE) DE SOLDATS U.S. APRES DES OPERATIONS MILITAIRES DE L'OTAN

Depuis 1996, les soldats américains revenant d'opérations militaires dans le cadre de l'OTAN aux Balkans, ont participé au programme commandé du Dépistage Médical Psychologique (Psychological Screening Program), en vue de déterminer l'aptitude psychologique. Cette étude résume les résultats de cet examen psychologique effectué sur 1.043 soldats revenant d'un déploiement en Albanie pour renforcer l'opération des Forces Alliées de l'OTAN. Bien que les soldats examinés dans cette étude du post-déploiement révélaient un taux de désordres psychiques plutôt plus élevé que ceux de soldats s'étant auparavant déployés en Bosnie, les résultats, d'une façon générale, montraient un niveau élevé d'hygiène mentale. De plus, les résultats indiquèrent que les soldats ayant déjà déployé aux Balkans avaient des taux de désordres psychiques moins, ce qui laisse à penser qu'un effet de «vaccin anti-stress» est obtenu par l'expérience du déploiement. Le programme du Dépistage Psychologique offre aux soldats l'occasion d'exprimer leurs inquiétudes au sujet de leur santé psychique et de recevoir des soins en conséquence. Le programme de dépistage fournit également aux chefs militaires des renseignements leur permettant de juger de l'aptitude psychologique de leurs unités.

**Keywords:** Psychological Screening, Post-deployment, Stress, Depression, Alcohol.

## BACKGROUND

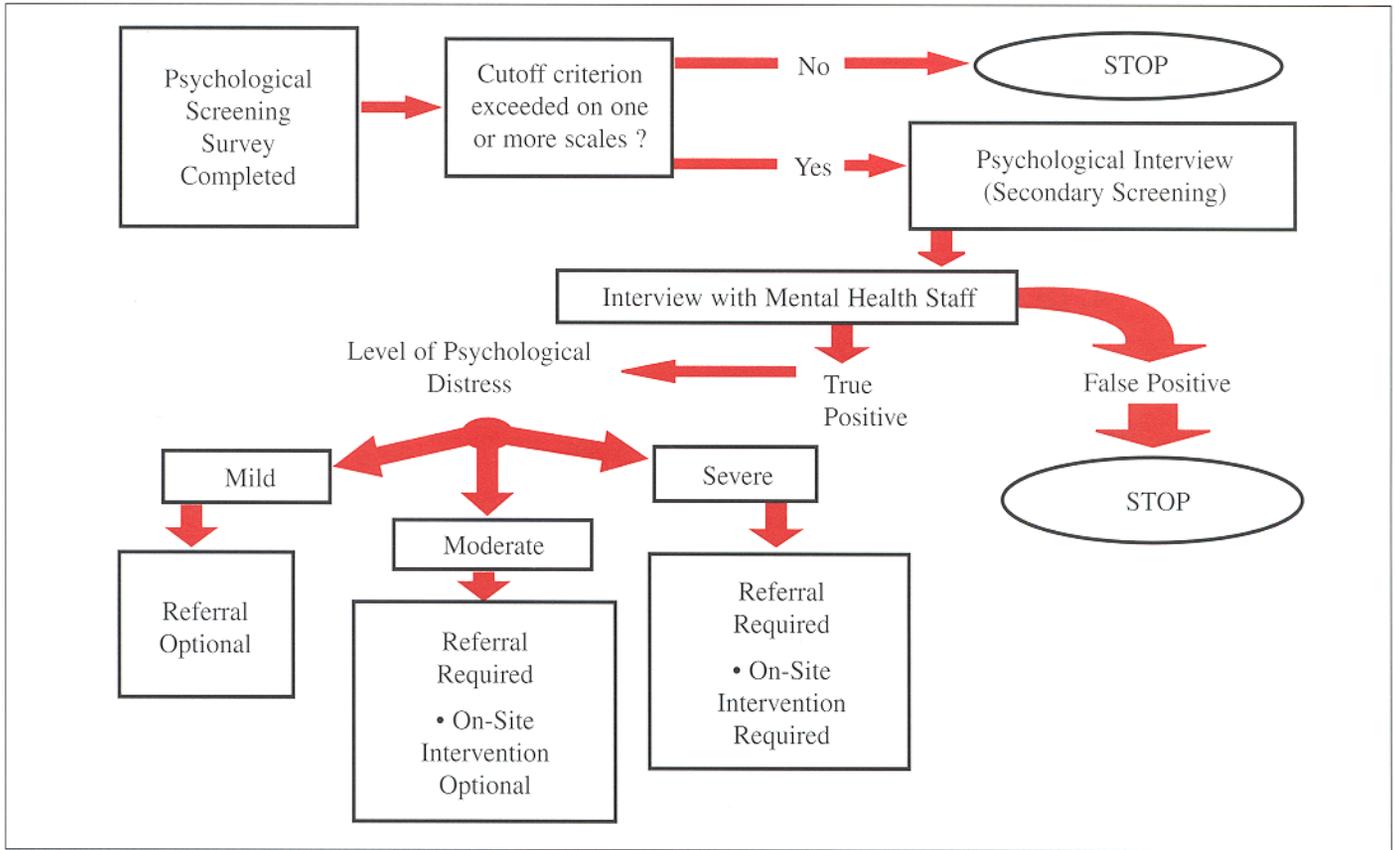
In February 1996, partly in response to the medical concerns following the Gulf War in 1991, the US military instituted a Joint Health Surveillance Program for soldiers redeploying from the NATO mission in the former Yugoslavia<sup>(2)</sup>. One component of Health Surveillance was a psychological screen. The purpose of the screen was to assess the mental health and psychological readiness of soldiers during redeployment<sup>(3)</sup>.

There were three components to the psychological screening process.

1- Soldiers completed a **primary screen** consisting of demographic questions, and three psychological scales that measured symptoms of post-traumatic stress, depression, and alcohol abuse.

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Figure 1 : Psychological Screening Flowchart



2- Soldiers who exceeded criteria on any of these scales completed **secondary screen interviews** conducted by trained mental health personnel.

3- Secondary interview results determined whether to **refer** soldiers for follow-up mental health services<sup>(4)</sup>. (see Figure 1).

### PRIMARY SCREEN DEMOGRAPHICS

Participants were asked about their gender, race, educational history, marital status, military background, and deployment history in the Balkans.

### PRIMARY SCREEN CLINICAL SCALES

The clinical scales included the Post-Traumatic Stress Disorder Checklist<sup>(5)</sup>, the Self-rating Depression Scale<sup>(6)</sup>, and the CAGE Questionnaire<sup>(7)</sup>.

In 1998, the U.S. Army Medical Research Unit-Europe conducted the same psychological screening procedure with non-deployed soldiers living in a garrison environment at 10 U.S. Army posts in Germany. The Medical Research Unit established garrison mental health norms and compared them to mental health norms obtained from the Joint Medical Surveillance Program in Bosnia<sup>(8)</sup>. In the 1999 post-deployment Albania study we again used the same psychological screening procedure. In addition, we also selected sub-samples of 1<sup>st</sup> Armored Division soldiers from the Garrison and Bosnia studies in order to compare findings across missions. (see Figure 2).

## FINDINGS

Of the Operation Allied Force soldiers who completed the post-deployment primary screen, 235 (22.6%) exceeded criteria on the post-traumatic stress, depression, or alcohol scale. After conducting secondary screening interviews, mental health personnel referred 62 (5.9% of the entire sample) soldiers for mental health follow-up. The majority of Soldiers from Operation Allied Force (94.1%) completed the screening process without a referral. (see Figure 3).

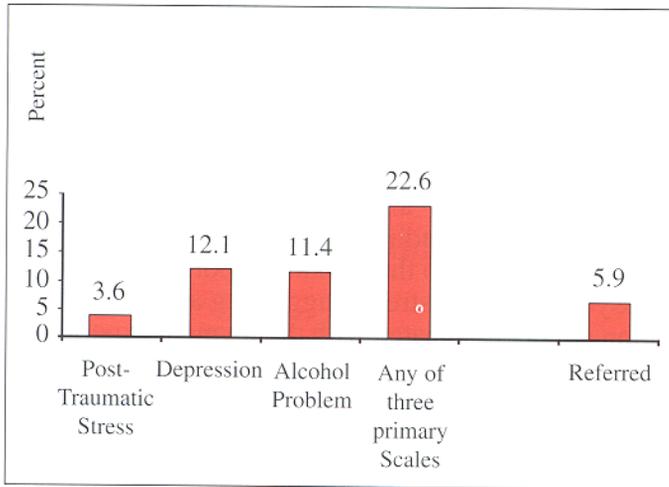
Upon further analysis we found that commissioned and non-commissioned officers were less likely to exceed criteria on the primary screen compared to junior-enlisted soldiers  $\chi^2(2, N=1,028) = 32.85, p < .001$ . There was no significant difference in the rate of referrals by rank.

Another important finding was that 172 (75.0%) of the soldiers who exceeded criteria on any scale had never received mental health counseling before. The

Figure 2: 1<sup>st</sup> Armored Division mission comparisons.

Mission	Location	Data Collection	N Size
Operation Allied Force	Albania	AUG-OCT 99 Post-deployment	1,043
Operation Joint Endeavor	Bosnia	FAB-DEC 96 Re-deployment	4,746
Garrison	Germany	APR-JUL 98	338

Figure 3: Operation Allied Force primary and secondary screening results.



screening process succeeded in providing these soldiers with an opportunity to identify mental health concerns and to report those concerns to mental health professional for the first time.

### MISSION COMPARISONS

We compared psychological screening results from Operation Allied Force to results from Garrison soldiers and soldiers re-deploying from Bosnia in the support of Operation Joint Endeavor. While there were no significant differences on the primary screen between the Operation Allied Force (22.6%) and Garrison (19.8%) samples, soldiers deployed on Operation Allied Force were more likely to exceed criteria on one of the primary screens than soldiers deployed on Operation Joint Endeavor (16.0%),  $\chi^2(1, N=5,728) = 25.66, p < .001$ .

In comparing the referral rates of soldiers who exceeded criteria on the primary screen, significant differences were found between Operation Allied Force (28.8%), and both Operation Joint Endeavor (15.2%),  $\chi^2(1, N=966) = 20.92, p < .001$ , and Garrison (58.2%),  $\chi^2(1, N=282) = 19.17, p < .001$ . Due to different criteria used for making referral decisions during secondary screening interviews, referral data from these missions are difficult to compare, and bear additional study.

After further analysis we found that junior-enlisted male soldiers from Operation Allied Force (12.1%) reported rates of depression significantly greater than their

Operation Joint Endeavor (8.0%) peers,  $\chi^2(1, N=2,879) = 12.40, p < .001$ . Similarly, a comparison of junior-enlisted males revealed that soldiers from Operation Allied Force (11.4%) reported higher rates of alcohol problems than their Operation Joint Endeavor (8.4%) counterparts,  $\chi^2(1, N=5,734) = 9.87, p < .01$ . There were no significant mission differences in the depression or alcohol rates for officers and non-

commissioned officers. In contrast, male officers (2.2%) reported lower rates of mental health concerns at post-deployment Operation Allied Force than at re-deployment Operation Joint Endeavor (9.2%) and female soldiers from Operation Allied Force reported rates of mental health concern that were similar to female soldiers from Operation Joint Endeavor.

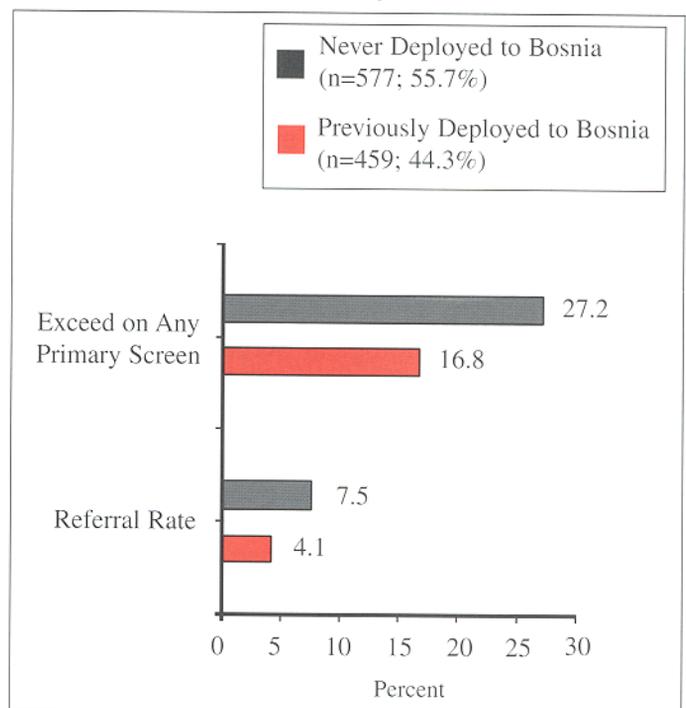
Overall, across the three missions, senior-ranking soldiers were less likely to exceed criteria on any of the scales compared to junior-ranking soldiers. In general, soldiers appeared more psychologically healthy while redeploying from Bosnia than at one to three months post-deployment Albania, or while carrying out garrison duties.

### DEPLOYMENT HISTORY

Besides mission, rank and gender-based differences, deployment experience also emerged from the Operation Allied Force data as a key variable for comparison. First, soldiers with previous deployment experience to Bosnia reported significantly fewer mental health problems than those without prior deployment to Bosnia,  $\chi^2(1, N=1,036) = 15.77, p < .00$ . Both the primary screen and referral rates demonstrate this difference, (see Figure 4).

Second, a sub-sample of enlisted soldiers (N=267) who deployed both to Bosnia in 1997 and to Albania in 1999, reported rates of depression and post-traumatic stress that were lower at post-deployment Albania than at re-deployment Bosnia, a finding that contrasts the overall mission comparison findings listed above. Together, these two findings suggest that prior deployment experience produces a «deployment

Figure 4: Primary and secondary screening results based on deployment experience



stress inoculation effect» that facilitates soldiers' adjusting to subsequent deployments.

## CONCLUSIONS

Although soldiers from Operation Allied Force reported rates of psychological distress somewhat higher than their Operation Joint Endeavor and Garrison counterparts, screening results indicated overall psychological well-being and readiness. In general, on the primary screen, senior-ranking soldiers reported fewer psychological concerns than junior-ranking soldiers. Referral rates by rank were not significantly different. A key finding was that soldiers who had previously deployed to Bosnia reported greater psychological well-being and readiness compared to soldiers with no prior deployment experience in the Balkans. This phenomenon was observed at post-deployment, during redeployment and in a garrison setting. To explain this, we have posited a «stress inoculation» hypothesis, namely, deployment experience contributes to better adjustment to subsequent deployments. A competing explanation for this phenomenon is the «self-selection» hypothesis, namely, soldiers who have remained in the military for multiple deployments are psychologically healthier than their counterparts who have left the military. We will continue to design studies to examine these hypotheses in our future research.

The Psychological Screening Program is valuable for both soldiers and commanders. It affords soldiers an opportunity to identify and report their mental health concerns, and provides commanders an assessment of unit psychological readiness. The Psychological Screening Program also allows researchers to measure psychological risk factors, and to develop more effective prevention strategies for maintaining psychological readiness. By incorporating such findings in their decision-making processes commanders can better lead their soldiers, and also better meet soldiers' mental health needs.

## SUMMARY

Since 1996, U.S. Army soldiers returning from NATO operations in the Balkans have participated in a command-directed Psychological Screening Program to

determine psychological readiness. This study summarizes psychological screening results from 1,043 soldiers after their return from a 1999 deployment to Albania in support of NATO's Operation Allied Force. Although the soldiers in this post-deployment study reported rates of psychological distress somewhat higher than rates reported by soldiers re-deploying from Bosnia, the overall results indicated a high level of mental health and psychological readiness. Furthermore, the findings indicated that soldiers with prior deployment to the Balkans reported lower rates of psychological distress, suggesting a «stress inoculation effect» associated with deployment experience. The Psychological Screening Program affords soldiers an opportunity to report their mental health concerns and to receive a referral for mental health services. The screening program also provides commanders an assessment of the psychological readiness of their units.

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