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The Impact of Homecoming Reception on the Adaptation of Peacekeepers Following Deployment

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Not unlike combat soldiers, peacekeepers are at risk for the development of significant symptoms of posttraumatic stress disorder (PTSD; Litz, Orsillo, Freidman, Ehlich, & Batres, 1997). Previous studies have demonstrated that the response of family and community members at homecoming has a significant restorative role in the adaptation of combat soldiers (e.g., Fontana & Rosenheck, 1994). This study assesses this potential effect in the postdeployment adjustment of peacekeepers. As part of a larger investigation, 1,023 U.S. military personnel who served as peacekeepers in Somalia were administered a comprehensive psychosocial questionnaire that included measures of exposure to negative and potentially traumatic peacekeeping

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experiences, homecoming reception, and PTSD symptom severity. Adjustment to peacekeeping was positively related to homecoming reception.

Homecoming is the reception that family, friends, and society extend toward men and women returning from a military conflict. Several studies of combat veterans have documented a strong link between a negative homecoming and psychological distress. For example, Butler, Foy, Snodgrass, and Hurwicz (1988) and Frye and Stockton (1982) reported that Vietnam veterans with posttraumatic stress disorder (PTSD) were more likely to report negative homecoming experiences than those without PTSD. In addition, Fontana and Rosenheck (1994), Wilson and Krauss (1985), and Johnson et al. (1997) found that a rejecting homecoming reception for Vietnam veterans accounted for even more of the variance in current PTSD symptom severity than combat exposure. Similarly, Solomon, Waysman, and Mikulincer (1990) examined the impact of support for Israeli veterans from family members and the community following the war in Lebanon. They found that the social support from family members, but not from the community, was significantly associated with symptoms of PTSD.

At present, there are no formal theoretical models that posit a causal role for homecoming in adaptation to military stressors. However, several researchers have offered post hoc explanations for the association between homecoming and psychological adaptation in combat veterans. For example, Fontana and Rosenheck (1994) reasoned that a hostile homecoming may discourage the veteran from expressing thoughts and feelings associated with the trauma and foster a maladaptive pattern of avoidance that might maintain and exacerbate the stress reaction. Wilson and Krauss (1985) suggested that negative homecoming experiences may create social isolation, which could leave veterans feeling unable to talk about, and thus fully process, the potentially traumatic aspects of their experience. Furthermore, Foy, Resnick, Sipprelle, and Carroll (1987) proposed that the withholding of support or actual hostile rejection, or both, experienced by Vietnam veterans during their homecoming might have served as what they termed a *secondary trauma* that significantly exacerbated, or at least maintained, symptoms of PTSD.

The empirical evidence on the impact of negative homecoming experiences has been studied almost exclusively among Vietnam veterans. Further research is needed to examine the relationship between homecoming and adjustment with other populations, as it is likely to be relevant to the adjustment of soldiers serving in other conflicts (Johnson et al., 1997). The potential impact of the homecoming experience is particularly relevant to Somalia peacekeepers, the focus of this study, because their homecoming experience has been characterized as the least favorable since the Vietnam War, largely because the mission to quell the civil war was unsuccessful (Litz, 1996). Further research is also needed to assess whether the influence of homecoming reception is related to degree of familiarity between the soldier and the source of support and to clarify whether homecoming reception is

essential to postdeployment adaptation generally or whether the association is particularly strong for soldiers exposed to high levels of combat and other stressors of peacekeeping.

We explored the impact of the homecoming reception by family and community on psychological well-being in peacekeepers and predicted that positive perceptions of family and community receptions would be related to lower levels of PTSD symptom severity. In addition, consistent with the findings of Solomon et al. (1990), we hypothesized that the perception of the family's reception would have a stronger association than the report of the community's reception with symptoms of PTSD. We also predicted that the impact of homecoming reception on psychological distress would be moderated by exposure to combat and the other stressors associated with peacekeeping such that a positive homecoming reception would be particularly beneficial for peacekeepers who reported the highest level of exposure.

METHOD

Study Design and Participants

The data for this study were collected as part of a longitudinal examination of veterans of the Somalia peacekeeping mission (Litz, Orsillo, Friedman, Ehlich, & Batres, 1997). There were 3,461 active duty military personnel who completed an initial questionnaire approximately 15 weeks after their return to the United States. Approximately 57% of the initial sample agreed to be recontacted. Participants who agreed to be followed were then contacted about 1.5 years postdeployment, either by phone or by mail. One thousand forty veterans (30%) were successfully contacted (518 by mail and 522 by phone), of whom a small percentage who had missing data (2%, $n = 17$) were excluded. This sample is comparable to the sample of individuals who completed the Time 1 assessment but did not complete the Time 2 assessment in regard to age, educational level, level of exposure, and posttraumatic distress. Thus, the final number of participants who were included in the following analyses was 1,023.

The mean age of the participants was 26.68 years ($SD = 6.14$). The majority of the participants were Caucasian (72%), male (90%), enlisted personnel (90%), and married (52%). This group of peacekeepers reported achieving an average of 12.97 years ($SD = 1.57$) of education. At the time of the assessment, the peacekeepers had served an average of 6.13 years ($SD = 5.52$) in the armed forces, and the mission in Somalia was the first mission for the majority of the study group (85%). Data on the complete population of U.S. military personnel who served in Somalia and the demographic characteristics of the veterans who participated in this study are comparable and similar to the initial sample (Litz, Orsillo, et al., 1997).

There was only one significant difference between the subsample used in this study and the complete initial sample across a range of pertinent demographic and

background variables, including age, educational level, history of prior service, level of war-zone exposure, and measures of psychological distress (i.e., posttraumatic stress symptom severity, level of depressive symptoms, and hostility problems). The study subsample included a smaller proportion of non-Caucasian participants than the initial sample (28% vs. 42%); however, compared with related findings for Vietnam veterans, the reports of level of exposure in this sample were similar among veterans of different racial backgrounds.

Relevant Variables

To limit the burden placed on the participants and to increase compliance with the survey, brief assessments of key constructs were developed. We reviewed the pertinent literature and existing assessment instruments in an attempt to develop short but sensitive scales of homecoming, combat exposure, peacekeeping stressors, and posttraumatic functioning.

Homecoming: Reception by family and by community. Two items were developed to assess individuals' perceptions of their homecoming reception. Participants were asked to rate on a 5-point Likert scale the extent to which they agreed or disagreed about whether they received the homecoming reception that they deserved from their family and from their community. The items read "Did you get the reception you feel you deserved from your family?" and "Did you get the reception you feel you deserved from the community?" Ratings ranged from 1 (*not at all*) to 5 (*extremely*). It has been demonstrated previously that family and community homecoming receptions are not synonymous (Solomon et al., 1990) and should be measured independently.

Combat exposure. This 7-item scale was developed specifically to assess exposure to mission-specific combat stressors (Litz, Orsillo, et al., 1997) and is similar to the Combat Exposure Scale (Keane et al., 1989). The respondents used a 5-point Likert scale to indicate the frequency with which they had experienced specific mission-related events. Items included questions such as "Did you go on patrols?" "Was your unit fired on?" and "Did you see Somalis dying?" The internal consistency was .75.

Other stressors associated with peacekeeping scale. We used a 15-item measure (Litz, King, King, Orsillo, & Friedman, 1997) to assess stressful events and circumstances that occurred during the peacekeeping mission to Somalia that might have created a sense of personal discomfort or distress but that did not constitute an imminent threat to life (for further details, see Litz, King, et al. 1997). Respondents used a 5-point Likert scale to indicate the impact of the event, on a scale that ranged from 1 (*not at all*) through 3 (*no impact*) to 5 (*extremely neg-*

ative impact). Examples of items included "being in Somalia over the holidays," "lack of personal space," and "danger of contracting [a] physical disease." The internal consistency of this appraisal measure is .86.

Posttraumatic stress. The posttraumatic stress scale provided a measure of the impact of the demands and stressors of peacekeeping in Somalia and was calculated by standardizing the total severity scores on the PTSD Checklist (Blanchard, Jones-Alexander, Buckley, & Forneris, 1996; Weathers, Litz, Herman, Huska, & Keane, 1993) and the Mississippi Scale (Keane, Caddell, & Taylor, 1988) and averaging them. The PTSD Checklist is a 17-item test that evaluates the severity of each of the 17 PTSD symptoms outlined in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. [*DSM–IV*]; American Psychiatric Association, 1994) using a 5-point Likert scale. Where appropriate, the items were worded to make reference to the specific deployment experiences of the peacekeepers (e.g., "Suddenly acting or feeling as if your Somalia experiences were happening again"). Using the Structured Clinical Interview for *DSM–III–R* (American Psychiatric Association, 1987) as the criterion, Weathers et al. documented the sensitivity and specificity of this scale to be .82 and .83, respectively. The internal consistency of this measure is .92. The Mississippi Scale is a 35-item test that evaluates the frequency of PTSD symptoms and associated features on a 5-point Likert scale. It was adapted to capture pertinent experiences in Somalia (e.g., "I wonder why I am still alive, when others died in Somalia"). The internal consistency of this measure is .94. On the basis of *DSM–III* (American Psychiatric Association, 1980) criteria for PTSD, Keane et al. reported the sensitivity and specificity of the instrument to be .93 and .89, respectively.

Procedure

The initial cohort of participants was made available to us by their commanding officers. All participants were volunteers and completed the initial psychosocial survey in group sessions under standardized conditions, in large auditoriums or smaller classrooms. The questionnaire took approximately 45 min to complete, with follow-up phone interviews taking approximately 30 to 45 min. Well-trained lay interviewers from a national survey research organization conducted these interviews. The follow-up assessments conducted by mail took approximately 20 min. This questionnaire was abbreviated to increase the likelihood of response.

Data Analysis Plan

A multiple linear regression tested the main and the interaction effects of exposure to combat and other stressors associated with peacekeeping and homecoming on symptoms of PTSD. The demographic variables and the independent variables of

exposure to combat and other stressors associated with peacekeeping and homecoming were assessed at Time 1, and the severity of symptoms of PTSD was assessed at Time 2. The independent variables used in the regression model (listed in order of entry) were (a) covariates—age, gender (dummy coded; 0 = female, 1 = male), years of education, race (dummy coded; 0 = non-Caucasian, 1 = Caucasian), marital status (dummy coded; 0 = not married, 1 = married), and rank (dummy coded; 0 = enlisted, 1 = officer) entered as a block; (b) level of exposure to combat and other stressors associated with peacekeeping (both centered to correct for multicollinearity with the interaction terms); (c) homecoming by family and by community (both centered to correct for multicollinearity with the interaction terms); and (d) the products of the level of combat exposure and the homecoming variables and the products of the other stressors associated with peacekeeping and the homecoming variables to test for the potential moderating effect of homecoming reception.

RESULTS

Characteristics of the Study Sample

The mean level of reported exposure to mission-specific combat stressors was 1.83 (SD = 0.75), which is considered to be light to moderate. The peacekeepers rated the other stressors associated with peacekeeping as having a mean impact of 2.40 (SD = 0.72), which indicates that the participants felt that these events had a moderately to considerably negative impact on them.

The mean score for this sample on the PTSD Checklist was 29.72 (SD = 12.41), on the Mississippi Scale was 68.50 (SD = 18.44), and on the composite measure was –0.03 (SD = 0.95). The prevalence rate for PTSD in this study group was 10.9%. The criterion for defining a PTSD case was determined in a previous study of Somali peacekeepers; the established cutoff is based on a utility analysis conducted to optimize the specificity and sensitivity of the measures, which were reported as .77 and .79, respectively (Litz, Orsillo, et al., 1997).

Homecoming

In general, the participants reported that their homecoming experiences were predominately positive. For instance, the average rating of the family's reception at homecoming was 3.23 (SD = 1.07), which most closely equated to a rating of "moderately" on the Likert scale, and the rating of the community's reception was 2.48 (SD = 1.24), which most closely translated to a rating of "a little bit" to "moderately" on the Likert scale. In addition, the participants' ratings of their homecoming receptions by family and community were moderately correlated, $r(1018) = .38$, $p < .001$ (see Table 1 for intercorrelations between variables).

The overall model predicting PTSD symptom severity was significant, $F(14, 937) = 14.24$, $p < .001$ (see Table 2 for a model summary). The change in R^2 attrib-

TABLE 1
Intercorrelations Between Variables

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1. Age	—										
2. Gender	.05	—									
3. Education	.35*	–.02	—								
4. Race	–.06	.08*	.11*	—							
5. Marital status	.45*	.09*	.13*	.02	—						
6. Rank	.21*	–.03	.69*	.16*	.11*	—					
7. CES	–.26*	.08*	–.06*	.07*	–.08	–.09*	—				
8. Neg. PK	–.09*	.01	–.16*	–.16*	.01	–.17*	.18*	—			
9. Family HC	.02	.04	.10*	.02	.12*	.09*	.00	.02	—		
10. Community HC	.06	.02	.12*	.02	.04	.11*	–.04	–.04	.36*	—	
11. Sx of PTSD	–.15*	–.03	–.17*	–.03	–.08*	–.19*	.28*	.19*	–.21*	–.21*	—

Note. CES = combat exposure scale; Neg. PK = other stressors associated with peacekeeping scale; HC = homecoming; Sx of PTSD = symptoms of posttraumatic stress disorder.
*$p < .001$.

utable to homecoming reception was 5%. In addition, the change in R^2 attributable to the moderating variables (i.e., the interaction between exposure to combat and homecoming reception by family, exposure to combat and homecoming reception by community, exposure to other stressors of peacekeeping and homecoming reception by family, and exposure to other stressors of peacekeeping and homecoming reception by community) was less than 1%. A post hoc analysis comparing the regression coefficients for the two homecoming variables (reception by family and reception by community) revealed that there was no significant difference in the amount of variance accounted for in the severity of PTSD symptoms, $t = 0.42$, *ns*.

Higher levels of exposure to combat and the other stressors of peacekeeping were associated with increased levels of symptom severity. More positive homecoming experiences were associated with lower levels of reported distress. However, homecoming reception did not moderate the relationship between exposure and distress. In addition, family and community receptions were not differentially associated with symptoms of PTSD.

DISCUSSION

Consistent with our hypothesis, a significant association was detected between peacekeepers' perceptions of their receptions at homecoming and their endorsement of symptoms of PTSD. As with previous studies with combat veterans (e.g., Butler et al., 1988), more positive homecoming receptions were associated with better adaptation. However, in contrast to previous findings (e.g., Johnson et al., 1997), homecoming reception did not account for more variance in PTSD symptom severity than exposure to potentially traumatizing events in Somalia. The fact

TABLE 2
Results of Hierarchical Regressions Predicting PTSD Symptom Severity From Homecoming

Variable	*B*	*SE B*	β
Step 1			
Age	–.01	.01	–.04
Gender	–.19	.13	–.05
Education	–.01	.03	–.02
Race	–.01	.07	–.01
Marital status	.01	.07	.01
Rank	–.29	.12	–.10
Step 2			
CES	.30	.04	.24*
Neg. PK	.17	.04	.12*
Step 3			
Family homecoming	–.13	.03	–.14*
Community homecoming	–.10	.03	–.13*
Step 4			
CES × family homecoming	.01	.04	.01
CES × community homecoming	–.02	.03	–.03
Neg. PK × family homecoming	.01	.04	.01
Neg. PK × community homecoming	.01	.03	.01

Note. $R^2 = .05$ for Step 1; $\Delta R^2 = .08$ for Step 2; $\Delta R^2 = .05$ for Step 3; $\Delta R^2 = .001$ for Step 4; total $R^2 = .18$. PTSD = posttraumatic stress disorder; CES = combat exposure scale; Neg. PK = other stressors associated with peacekeeping scale.

*$p < .001$.

that this study failed to replicate Johnson et al.'s finding may be a result of the limitations in our instrumentation or in the differing nature of the missions evaluated.

Moreover, after controlling for exposure to combat and other stressors of peacekeeping, homecoming reception accounted for a significant amount of variance in postdeployment distress. However, exposure to combat-like experiences and other stressors related to peacekeeping did not moderate the relationship between homecoming reception and distress. These results indicate that homecoming reception plays a role in the individual and environmental characteristics that affect soldiers' adaptation to peacekeeping missions, but this effect is independent of the level of exposure to highly stressful or potentially traumatic experiences. Thus, irrespective of the intensity of the exposure to traumatic events, homecoming reception is relevant to a soldier's attempt to legitimize and validate his or her actions and sacrifices made during a mission.

The absence of a differential effect of homecoming reception by family and community runs counter to findings reported by Solomon et al. (1990). Although speculative, this null effect may be due to specific characteristics of the homecom-

ing experience within the family and the community, which may differ between the Israeli and American cultures. The latter would be consistent with research that has demonstrated cultural differences in the nature and impact of social support (e.g., De Silva, 1999). Alternatively, it could be that a more thorough assessment of the reactions of interest would have revealed an independent effect of family reception. These explanations require further empirical study.

There are methodological limitations to this study. Given the correlational design and the retrospective, self-report method of data collection, causal inferences could not be drawn about the relationships between the variables. In addition, the measure of homecoming reception was limited as a result of the wide scope of the questionnaire. It is also possible that additional, unassessed variables contributed to the findings of this study. For instance, peacekeepers who were feeling distressed at the time of the interview may have reported a more negative homecoming experience based on their current mood as opposed to their objective assessment of their homecoming experience. Given the wording of the homecoming items, the results could also be interpreted to suggest that a homecoming reception that is consistent with a peacekeeper's expectations, regardless of the nature of the homecoming, is critical. Finally, the generalizability of these findings may be restricted.

Despite these limitations, this study suggests that veterans of peacekeeping operations are not immune to the prevailing attitudes regarding their service and that these veterans suffer when their families and communities do not extend themselves to these soldiers on their return. These findings suggest that it would be important for soldiers to be instructed to find others who are supportive upon homecoming, especially if such support is not built into their preexisting community, to facilitate their adjustment.

The literature on the impact of homecoming reception on psychological well-being would benefit from future studies that incorporated more in-depth measures of homecoming experiences, such as the West Haven Homecoming Stress Scale (Johnson et al., 1997). Such studies, especially those based on qualitative assessments of key experiences, would likely extend an understanding of the importance of the various components of the homecoming reception, especially those aspects that might be idiosyncratic to specific deployments. These studies would also permit researchers to assess which aspects of homecoming reception are likely to contribute to risk and resiliency in the postdeployment environment (e.g., negative interpersonal interactions, social withdrawal) and, thus, which aspect of the environment needs to be bolstered in the postdeployment environment.

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