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Hope, Coping, and Social Support in Combat-Related Posttraumatic Stress Disorder

Lori M. Irving,[1,2] Leslie Telfer,[1] and Dudley D. Blake[1]

Dispositional hope, coping, and perceived social support were assessed among Vietnam combat veterans upon admission to and discharge from inpatient treatment for posttraumatic stress disorder (PTSD). Veterans reported lower dispositional hope than any previously described sample, and hope did not increase at discharge from treatment. At admission, higher hope was correlated with greater perceived social support coming from family (this relationship persisted when controlling for depression and PTSD symptoms). At discharge, higher hope was associated with greater perceived social support coming from family and friends and the use of adaptive coping strategies. Results indicate that hope confers a beneficial effect once veterans undergo treatment for combat-related PTSD, a finding that suggests that hope may be "gone but not lost" for these individuals.

KEY WORDS: hope; coping; social support; Vietnam veterans; PTSD.

An estimated 15%, or 279,000 combat veterans of the Vietnam war meet the criteria for current posttraumatic stress disorder (PTSD; Kulka et al., 1990). Symptoms of this disorder include re-experiencing the traumatic event; emotional "numbing," or avoidance of trauma reminders; and hyperarousal in response to trauma-related stimuli (American Psychiatric Association [APA], 1994). The symptoms of PTSD can result in attention difficulties, maladaptive coping, and avoidance of others (Horowitz, 1986).

[1]National Center for Posttraumatic Stress Disorder (NCPTSD), Department of Veterans Affairs Health Care System, Palo Alto, California.
[2]To whom correspondence should be addressed at Washington State University, Classroom Building, 14204 N.E. Salmon Creek Avenue, Vancouver, Washington 98686.

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Consequently, veterans who experience these symptoms are often immobilized in their attempts to attain life goals (e.g., career, relationships; Kulka et al.) and do not expect to attain these goals in the future (APA).

Due to the paralyzing impact of combat-related PTSD, investigators have attempted to identify individual difference variables that predict postwar adjustment, with an eye toward psychological deficits or inadequacies associated with the development of combat-related PTSD. For instance, coping through the use of avoidance and emotional venting (Fairbank, Hansen, & Fitterling, 1991; Joseph, Yule, & Williams, 1993) and inadequate social support (Boscarino, 1995) have emerged as psychosocial concomitants of combat-related PTSD. While attention has been given to negative psychological influences and combat-related PTSD, little attention has been paid to the potentially beneficial role of positive dispositions in postwar adjustment, despite research that indicates such dispositions are related to superior adjustment in the face of stress (Elliott, Witty, Herrick, & Hoffman, 1991; Sherwin, Elliott, Frank, Hanson, & Hoffman, 1992; Snyder, Irving, & Anderson, 1991; Snyder, Harris, et al., 1991).

In this paper we examine the relationship between dispositional hope (Snyder, Harris, et al., 1991) and coping and social support among Vietnam veterans undergoing inpatient treatment for combat-related PTSD. A hopeful disposition has been associated with superior coping and less psychological distress under conditions of mild to moderate stress (Snyder et al., 1991). In this study we examine whether the benefits of hope extend to veterans exposed to the repeated, life endangering stress encountered during warzone combat.

Snyder, Harris, and colleagues (1991) conceptualize hope as a cognitive "set" or disposition comprised of two factors, agency and pathways. *Agency* refers to belief in one's ability to initiate and sustain movement toward a goal. *Pathways* refers to believing that one can generate strategies to attain goals. Agency and pathways are related, but distinct constructs (Babyak, Snyder, & Yoshinobu, 1993), and it is assumed that both are necessary for individuals to successfully meet their goals and recover when a goal is not obtained. For example, after losing a job, individuals who strongly believe that they can find another job (i.e., "agency") are also more likely to believe that they can generate strategies for finding a job ("pathways").

Hope is construed as a global dispositional style—it remains stable over time and pertains to beliefs about attaining goals across life domains rather than goals about a specific situation (Snyder, Harris, et al., 1991; Snyder et al., 1996). Because high hope persons think more positively about their ability to attain goals generally, they experience greater well-being and less distress. The association between higher hope and superior well-

being has been found in a variety of samples, including college students and state hospital inpatients (Snyder, Harris, et al., 1991), nurses on chronic care rehabilitation units (Sherwin et al., 1992), and among individuals with traumatically acquired disabilities (Elliott et al., 1991).

Research suggests that hopeful people feel better because they use more effective goal setting strategies and methods for coping with stress, and have better quality social support. In non-clinical samples, high hope persons reported a greater number of life goals, perceived themselves as having more control over their goals, and generated a greater number of strategies for attaining goals (Snyder, Harris, et al., 1991). In addition, high hope persons were found to focus on success rather than failure while pursuing goals, and to rely on adaptive coping strategies in pursuing goals, even in the face of obstacles (Snyder, Harris, et al., 1991). High hope persons may cope well and feel better because they have better quality relationships, as indicated in research where, compared to low hope adults, adults high in hope were less likely to report being lonely, and substance dependent veterans higher in hope reported greater perceived social support (Irving, Seidner, Burling, Pagliarini, & Robbins-Sisco, 1995).

Importantly, studies find that the relation between hope and adaptive coping remains even after controlling for psychological distress or negative affectivity (Snyder et al., 1991). Thus, dispositional hope is associated with superior coping, and this association appears to be due to the unique qualities of hope rather than the absence of psychological distress.

While previous research indicates that persons with a hopeful disposition cope better and report superior well-being in the face of stress, research has not examined hope, coping, and well-being among individuals who have endured warzone trauma. It has been argued that personality characteristics cannot attenuate the effects overwhelming trauma (Herman, 1992), and that in such circumstances, attributes of the traumatic event, not the individual, determine whether one develops PTSD. However, we argue that dispositional hope confers a beneficial effect even in the face of significant trauma—where opportunities for goal attainment are blocked or threatened. Studies of persons confronting traumatic *health* events such as breast cancer and heart surgery (Carver et al., 1993; Scheier et al., 1989) show that positive dispositions are associated with superior psychological and physical adjustment. However, the role of positive dispositions in protecting individuals from extreme *psychological* trauma must be inferred from anecdotal reports. In his account of life in a concentration camp, Victor Frankl (1959) underscored the relationship between loss of hope and psychological and physical degeneration, stating "The prisoner who had lost faith in the future—his future—was doomed. With his loss of belief in the future, he also lost his spiritual hold; he let himself decline and became

subject to mental and physical decay" (p. 95). We argue that, even in a group of traumatized persons, those higher in hope will be more successful at maintaining a sense of goal-directed determination and identifying and using strategies that increase the likelihood that goals will be attained.

One problem in studying hope in a sample of individuals diagnosed with PTSD is the potential overlap between these constructs. Indeed, a diagnosis of PTSD is akin to diagnosing an absence of hope (i.e., Criterion C symptoms, including "markedly diminished interest or participation in significant activities" and "sense of a foreshortened future," APA, 1994, p. 428). However, prior research indicates that hope is a stable trait characterized by superior coping, and that the relationship between hope and coping remains when controlling for psychological distress (Snyder, Harris, et al., 1991). Veterans in treatment for combat-related PTSD are likely to report substantial psychological distress and possible deficiencies in hope. However, even among distressed combat veterans, we expect that those higher in hope will report superior coping and social support, and that these relationships will persist when controlling for such distress.

In this study, we examine the relations between dispositional hope, coping and social support among Vietnam combat veterans upon admission to and discharge from inpatient treatment for PTSD. We hypothesized that veterans with combat-related PTSD would report lower levels of dispositional hope than non-clinical samples. In addition, we predicted that, at admission and discharge, higher dispositional hope would be associated with greater reliance on adaptive coping strategies, less reliance on maladaptive coping strategies and greater perceived social support. We also expected that the relations between hope, coping and social support would persist when controlling for PTSD symptoms. Finally, because treatment of combat-related PTSD typically involves building coping skills and improving relationships with others, we predicted that treatment for combat-related PTSD would lead to greater reliance on approach coping, less reliance on avoidance coping, and increased perceptions of social support.

Method

Participants

All participants were male combat veterans of the Vietnam war who were selected from admissions to the National Center for Posttraumatic Stress Disorders-Clinical Laboratory and Education Division between January and November of 1992. Approximately one-half to two-thirds of all newly admitted veterans were randomly selected and were invited to par-

ticipate in a larger treatment outcome project to which the data reported in this study were adjunctive (participation in the larger study was encouraged with token reimbursement of $10 for 5 hr of participation). Random selection was employed because there were not enough staff members to conduct assessments with all veterans admitted to the program. Seventy two veterans (approximately 95% of those approached) agreed to participate.

The sample was middle aged (M = 43.9, SD = 2.7), with slightly more than 12 years of education (M = 13.4 years, SD = 1.7). The majority of participants (69%) were Caucasian, with 12% African American, 10% Hispanic, 3% Native American, 3% Pacific Islander, and 3% of other ethnic backgrounds. Three quarters of participants were not married (47% divorced, 25% separated, 2% widowed, 7% never married), and 26% were married. The majority of participants were veterans of the Army (61%), followed by the Marines (22%), Navy (14%), and Airforce (3%). Length of military service ranged from 1 to 13 years (M = 3.9, SD = 2.7).

Procedure

All participants were admitted to the Center's Evaluation and Brief Treatment PTSD Unit (EBTPU) for 6 to 10 weeks, at the start of which they underwent extensive psychological assessment for clinical and research purposes. A proportion of study participants (approximately 75%) continued on to a Specialized Inpatient PTSD Unit (SIPU; an additional 10 to 12 weeks) for more intensive, trauma-focused treatment. Participants were diagnosed with PTSD using a battery of structured interviews and self-report measures (Beck Depression Inventory [BDI], Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Clinician Administered PTSD Scale [CAPS], Blake et al., 1990, 1995; Mississippi Scale for Combat-Related PTSD, Keane, Caddell, & Taylor, 1988; Combat Exposure Scale [CES], Keane et al., 1989; Minnesota Multiphasic Personality Inventory [MMPI-2], Butcher, Dahlstrom, Grahm, Tellegen, & Kaemmer, 1989; Keane, Malloy, & Fairbank, 1984; Structured Clinical Interview for DSM-III-R, patient edition [SCID-P], Spitzer, Williams, Gibbon, & First, 1989) in a distraction-free testing laboratory. Demographic information was obtained from a brief demographic questionnaire given at the time of the assessment. Participants were re-evaluated at the time of discharge from the EBTPU or SIPU, whichever program that they were in at the time of their discharge. Participants completed the same self-report measures at that time.

Forty seven of the initial 72 participants (65%) completed questionnaires at discharge. This heavy rate of attrition was due to difficulty coor-

dinating exit testing with clinical staff. Because attrition was random—due to lack of staff coordination rather than characteristics of participants, we did not expect to observe differences between those who did and did not complete questionnaires at discharge. However, several differences between completers and non-completers were found. Participants who completed both sets of questions were less depressed (*M*s = 26.0 vs. 31.8, respectively), $t(70) = 2.20, p < .05$, and reported marginally less PTSD symptomatology (*M*s = 127.2 vs. 135.8, respectively), $t(70) = 1.96, p = .06$. In addition, a greater proportion of participants who failed to complete both sets of questionnaires were married (44% versus 17%), χ^2 $(1, N = 72) = 6.11, p < .02$. There were no additional differences between participants who did and did not complete both sets of measures on demographic factors or scores on measures of hope, coping and perceived social support.

Measures

Hope Scale. The Hope Scale (Snyder, Harris, et al., 1991) is an 8-item measure that contains four agency items (e.g., "I energetically pursue my goals") and four pathways items (e.g., "There are lots of ways around any problem"). Individuals rate how well each item describes them on a scale from 1 (Definitely false) to 4 (Definitely true). Hope (all eight items), Agency and Pathways scores are derived by summing the appropriate items. The Hope Scale and its subscales have demonstrated good reliability (alpha coefficients of .63 to .84, and test-retest reliabilities of .73 to .85, reported in Snyder, Harris, et al., 1991). The validity of the Hope Scale has been substantiated in studies where higher hope is associated with better well-being, a greater number of goals, and focusing on potential for success rather than failure in working toward goals (Snyder, Harris, et al., 1991; Snyder et al., 1991). In a confirmatory factor analysis, the agency and pathways components were found to be related but distinct constructs that reflect the overarching hope construct (Babyak et al., 1993). In the present study, alphas for the Hope Scale and its subscales ranged from .44 to .73, with 4- to 6-month test-retest reliabilities of .65, .59, and .54 for the total Hope, Agency, and Pathways scores, respectively.

Perceived Social Support Scales (PSS). This 40-item self-report inventory measures perceived availability of and recently received social support, with separate 20-item subscales for the index person's family network and friend network (Procidano & Heller, 1983). The PSS has demonstrated good reliability, with alpha coefficients of .88 and .90 for the friends and family subscales, respectively. The discriminant validity of the PSS has been supported in research where both perceived support measures were better predictors of mild symptoms of psychological distress in essentially normal

subjects than life events or such structural social network characteristics as number of supporters or duration of relationships. In our veteran sample, alphas for the friends and family scales ranged from .89 to .94.

Coping Responses Inventory (CRI). This 58-item self-report instrument assesses coping in response to a focal stressor identified by the respondent (Moos, 1993). Participants are asked to "...think about the most important problem or stressful situation you have experienced in the past six months," and "...indicate what you did in connection with that situation." The CRI is comprised of eight subscales, four that reflect "approach" coping (i.e, logical analysis, positive reappraisal, seeking guidance and support, problem solving), and four that reflect "avoidance" coping (i.e., cognitive avoidance, acceptance or resignation, seeking alternative rewards, emotional discharge) in response to the identified stressor. The first two subscales in each set of four represent cognitive strategies, while the second two represent behavioral strategies. Raw scores on CRI subscales are converted to standardized scores ($M = 50$, $SD = 10$) and plotted to obtain a "coping profile" that illustrates individuals' relative use of approach and avoidance strategies to cope. The CRI subscales have demonstrated moderate internal consistency (alpha ranges from .58 to .74) and low to moderate intercorrelations (r ranges from –.11 to .57, average $r = .27$). The validity of the CRI is supported in studies where over reliance on avoidance coping responses discriminated clinical samples (alcoholics, depressed patients) from a variety of control samples, and where treatment for depression was associated with less reliance on emotional discharge and better outcome at a 1 year follow-up (Moos, 1993). In our sample, alpha coefficients for the CRI subscales ranged from .33 (emotional discharge) to .83 (problem solving; overall $M = .67$).

Beck Depression Inventory (BDI; Beck et al., 1961). This widely used 21-item self-report measure assesses behavioral aspects of depression.

Mississippi Scale for Combat-related PTSD (Keane, Caddell, & Taylor, 1988). This 35-item reliable and valid self-report scale provides a continuous measure of PTSD symptomatology as defined by the DSM-III diagnostic criteria.

Results

Hope and Combat-Related PTSD

The average dispositional Hope Scale score of the 72 veterans completing testing at admission was 17.6 ($SD = 3.9$), significantly lower (all *ps*

< .001) than previously sampled college students (M = 25.3, SD = 2.8 to 3.4 across seven samples), stress center outpatients (M = 22.6, SD = 4.4), and state hospital inpatients (M = 23.1, SD = 4.5; additional data reported in Irving, Larson, & Leibnitz, 1995; Snyder, Harris, et al., 1991). Scores on the Agency and Pathways subscales were moderately correlated, r (72) = .46, p < .01, confirming that agency and pathways are related, but distinct constructs. At intake, the Hope Scale was inversely correlated with BDI scores, r (72) = –.33, p < .01, and symptoms of PTSD as measured by scores on the Mississippi Scale for combat-related PTSD, r (72) = –.29, p < .05.

Pearson correlations were used to examine the relationship between hope, coping and social support (see Table 1). These analyses were restricted to the 47 veterans who completed questionnaires at both admission and discharge. Due to the large number of correlations, a Bonferroni correction was applied to all tests of significance. In all cases, the significance level was determined by dividing alpha by the number of significance tests for each measure (i.e., two total Hope scales, two Agency and two Pathways scales, four approach and four avoidance coping scales, and two Social Support scales).

Two noteworthy patterns emerged from these correlations. First, scores on the Hope Scale were positively correlated with a greater number of measures at discharge than at admission. At admission, scores on the Hope

Table 1. Correlations between Hope Scales and Coping and Social Support at Admission and Discharge[a]

Measure	Hope	Agency	Pathways
Approach coping			
Logical analysis	.25 (.41[b])	.31 (.45[b])	.12 (.24)
Positive reappraisal	.35 (.34)	.43[b] (.43[b])	.17 (.13)
Seeking guidance	.19 (.37[b])	.28 (.43[b])	.05 (.21)
Problem solving	.35 (.42[b])	.38[b] (.41[b])	.22 (.31)
Avoidance coping			
Cognitive avoidance	–.03 (–.13)	.14 (–.20)	–.20 (.02)
Acceptance/resignation	.18 (–.15)	.29 (–.17)	.01 (–.02)
Seeking alternate rewards	.43[b] (.55[b])	.54[b] (.44[b])	.20 (.48[b])
Emotional discharge	.01 (.29)	–.02 (.21)	–.05 (.18)
Perceived social support			
Family	.52[b] (.49[b])	.59[b] (.60[b])	.30 (.18)
Friends	.32[b] (.45[b])	.27 (.38[b])	.29 (.36[b])

[a]Correlations at admission appear first, correlations at discharge appear second, in parentheses.
[b]p < .05 with Bonferroni correction (alpha/number of measures).

Scale were associated with greater perceived social support from family and friends, and coping through *seeking alternative rewards* (a form of avoidance coping that is described as having elements of "approach" coping, Moos, 1993). At discharge, Hope Scale scores were positively associated with greater perceived social support (family and friends), coping through *seeking alternative rewards*, and with three of the four "approach" oriented coping strategies (*logical analysis*, *seeking guidance*, and *problem solving*). A second pattern was that, at admission and discharge, Agency scores were correlated with a greater number of variables than Pathways scores. At admission, Agency was correlated in the predicted direction with four variables whereas Pathways was correlated with two; at discharge, Agency was significantly correlated with seven variables and Pathways only with two.

Results indicated that higher hope was associated with superior coping and perceived social support in this veteran sample. However, it was possible that the relationship between hope, coping and social support could be explained by the association between hope, depression, and PTSD symptoms. To evaluate this possibility, hierarchical multiple regression was used to examine the relation between hope and coping and social support at admission while controlling for depression and PTSD symptoms. In these analyses, coping and social support served as criterion variables and scores on the Hope Scale, Agency subscale, BDI, and Mississippi Scale served as predictors. Analyses were completed only for those variables significantly associated with hope at admission.

The first criterion variable examined was *seeking alternative rewards*; by forcing the BDI and Mississippi scores into the equation at Step 1, $R^2 = .15, p < .05$; Hope Scale scores entered at Step 2 augmented this prediction, $\Delta R^2 = .11, p < .02$. When this analysis was repeated with Hope Scale scores entered at Step 1, $R^2 = .18, p < .01$; BDI and Mississippi scores entered at Step 2 did not augment the prediction, $\Delta R^2 = .07$, *ns*. The second criterion variable examined was perceived social support from family. When this variable was entered as a criterion, BDI and Mississippi scores forced in at Step 1 did not contribute significantly to the prediction, $R^2 = .10$, *ns*; however, Hope Scale scores entered at Step 2 augmented the prediction, $\Delta R^2 = .20, p < .01$. With perceived social support from friends as a criterion variable, BDI and Mississippi scores did not contribute to the prediction at Step 1, $R^2 = .07$, *ns*; Hope Scale scores approached but did not reach significance as a predictor, $\Delta R^2 = .07, p = .08$. Therefore, at admission, hope explained unique variance in coping and perceived social support from family that was not explained by depression or PTSD symptoms.

Similar analyses were completed with the Agency subscale of the Hope Scale (agency was significantly correlated with four variables at admission).

With *seeking alternative rewards* as a criterion variable, forcing the BDI and Mississippi scores into the equation at Step 1, $R^2 = .15, p < .05$; Agency entered at Step 2 augmented this prediction, $\Delta R^2 = .20, p < .001$. When this analysis was repeated with Agency entered at Step 1, $R^2 = .29, p < .001$; BDI and Mississippi scores entered at Step 2 did not augment the prediction, $\Delta R^2 = .06$, *ns*. With *positive reinterpretation* as a criterion variable, forcing the BDI and Mississippi scores into the equation at Step 1 did not contribute significantly to the prediction, $R^2 = .06$, *ns*; Agency entered at Step 2 augmented this prediction, $\Delta R^2 = .14, p < .01$. With *problem solving* as a criterion variable, forcing the BDI and Mississippi scores into the equation at Step 1 did not contribute significantly to the prediction, $R^2 = .09$, *ns*; Agency entered at Step 2 augmented this prediction, $\Delta R^2 = .09, p < .05$. When perceived social support from family was entered as a criterion, BDI and Mississippi scores forced in at Step 1 did not contribute significantly to the prediction, $R^2 = .10$, *ns*; Agency scores entered at Step 2 augmented the prediction, $\Delta R^2 = .26, p < .001$. In summary, at admission, Agency subscale scores explained unique variance in coping and perceived social support from family that was not explicable in terms of depression or PTSD. Depression and PTSD, however, were no longer associated with superior coping when controlling for hope. These analyses suggest that hope is related to, but not redundant with symptoms of distress, even in a severely distressed sample.

No changes were observed in Hope Scale and perceived social support scores at discharge from treatment. However, one adaptive change in coping was noted at discharge. Veterans reported increased use of *problem solving* in coping with stress following treatment $t(45) = 3.36, p < .05$. It is worth noting that, at discharge, scores on all coping scales shifted in the predicted direction. Scores on measures of adaptive coping had increased and scores on measures of maladaptive coping had decreased. Before Bonferroni correction, four coping scales (*positive reappraisal*, *seeking guidance and support*, *problem solving*, and *cognitive avoidance*) had changed significantly in the predicted direction.

Discussion

Results indicate that combat-related PTSD is marked by feeling immobilized in efforts to obtain general life goals and goals specific to PTSD. Indeed, the dispositional hope scores of our veterans were one to two standard deviations below those observed among individuals undergoing outpatient treatment for stress-related problems and chronic mentally ill residents at a state hospital. *Why* do combat veterans express such a pro-

found lack of hope? Perhaps combat veterans were low in hope *before* they entered the military, and this "diathesis" left them especially vulnerable to the extreme "stress" of the warzone. This is consistent with the argument that trauma victims' reaction to the event is multiply determined—a product of the individual's previously acquired ability to cope with stress and the intensity of the traumatic experience (Figley, 1986; Jones & Barlow, 1990; Joseph et al., 1993). The role of dispositional hope in promoting resiliency to trauma cannot be addressed with our data, but could be explored in prospective studies that examine the impact of pre-trauma levels of hope on adjustment post-trauma.

Veterans' low hope also could result from the nature of combat trauma. Persons exposed to chronic, severe trauma are more likely to develop the symptoms of PTSD than persons exposed to episodic, less severe events (Centers for Disease Control, 1988; Herman, 1992). Indeed, there appears to be a "dose-response" relationship between degree of exposure and psychiatric morbidity (Shore, Tatum, & Vollmer, 1986). Combat exposure may be "doubly" traumatic, because combatants are likely to be participants in, as well as victims of, the traumatic experience. (Over half of our 72 veterans reported that they had "gone over the line" during the war by participating in acts that they believed were immoral.) For Vietnam veterans, whose trauma occurred during their formative, young adult years, PTSD symptoms and a lack of hope may become stable characteristics rather than transient reactions to stressful events (Horowitz, 1986). In order to evaluate the impact of trauma on hopefulness, the hope scores of veterans with varying degrees of combat exposure would need to be compared. Such a comparison may elucidate any possible "dose-response" relationship between exposure to combat trauma and lack of belief in ability to obtain future goals.

On the Hope subscales, veterans reported less agency than pathways about life goals. This finding suggests that veterans believe they can find strategies for accomplishing life goals (e.g., get a job, establish a relationship) but lack the energy or determination to do so. Subscale score differences suggest that characteristics of the individual might be considered in treating veterans with PTSD. It may be wise, clinically and economically, to match clients to treatments that meet their specific needs (see Shoham-Salomon, 1991). For example, persons with deficient agency but ample pathways may need motivational rather than skills-based interventions. Conversely, those with ample agency but low pathways may require interventions that emphasize strategies for attaining desired outcomes.

Dispositional hope followed the expected pattern of relations with measures of coping and perceived social support, however, the relationship between hope and "approach coping" strategies was found only at discharge

from treatment. Of the two subscales, agency was more strongly associated with coping and social support than pathways at admission and discharge. *Why* was hope (and, more specifically, agency) strongly related to approach oriented coping at discharge, but not at admission? To answer this question, it is helpful to review the construct of hope as well as the nature of PTSD. Recall that hope is based on believing that one can achieve goals by identifying strategies for goal attainment. Veterans entered treatment because they did not know how to effectively cope with PTSD and other life stressors. Treatment may provide veterans with these tools. Perhaps hope only confers its beneficial effects once the tools necessary for coping and interpersonal communication are provided. Also, goal directed determination (agency) rather than planning of ways to meet goals (pathways) may be more important at this early stage of the treatment process. This might be particularly true in war veterans, where hope is extremely low to begin with. Indeed, hope might flourish when an individual learns effective means for coping, improves his or her interpersonal functioning, and experiences fewer and less debilitating PTSD-symptoms. Consequently, pathways, or the capacity for planning ways to meet goals, may be more pronounced in the later stages of successful treatment.

Hope was modestly associated with depression and PTSD symptomatology at admission. Despite this association, the relations between hope, coping and social support at admission were not explicable in terms of depression or PTSD symptoms. This is consistent with previous research (Snyder et al., 1991), and provides added evidence that hope is more than the absence of debilitating symptoms. In terms of the present study, we can say that hope is not synonymous with PTSD-related psychopathology, or more specifically, symptoms of depression and PTSD. Not only was evidence found for the discriminant utility of the hope scale, our initial contention that hope exerts a beneficial effect among trauma survivors was supported.

In this study we evaluated the relations among hope, PTSD, and likely mediators (i.e., coping, social support) in combat veterans undergoing inpatient PTSD treatment. While it may have been preferable to relate hope, coping and social support to treatment outcome (i.e., changes in PTSD symptomatology), such information was not available in the present study. Future studies of hope in those diagnosed with PTSD should be designed with this in mind. Outcome data may provide a richer, more complete examination of the relationship between hope and combat-related PTSD.

In this study, outcome measures were completed at the time of discharge from either the Evaluation and Brief Treatment PTSD Unit (EBTPU) or the Specialized Inpatient Treatment Unit (SIPU). Because all participants completed the EBTPU, and the SIPU offered a continuation

of the treatment offered at EBTPU, all participants were part of the same treatment culture and milieu. In the future, it would be helpful to examine hope and treatment outcomes as a function of more distinct forms of treatment (e.g., outpatient versus inpatient, group versus individual).

While findings support study hypotheses, alternative explanations for these results should be considered. One alternative explanation is selective attrition. Twenty five of the 72 (35%) patients admitted for treatment did not complete discharge questionnaires. Those who completed both sets of questions reported fewer symptoms of distress. Therefore, our sample consists of less distressed combat veterans receiving inpatient PTSD treatment. Despite this bias, veterans who completed measures at admission and discharge (n = 47) had a mean score of 127 on the Mississippi Scale, which exceeds the cutoff score of 107 suggested by its authors (Keane et al., 1988). This, along with the extremely low hope scores of this veteran sample, suggests that this group was quite distressed. It also should be noted that attrition was random—related to issues of staff coordination rather than characteristics of participants.

Demand characteristics could be an explanation for improvements in problem solving coping at discharge—patients may have felt obligated to report that they were coping better. However, one could argue that if demand characteristics were operating, scores on other measures should have changed in the predicted direction. Furthermore, the veterans were aware that their discharges were not contingent upon scores on the measures included in this study.

In summary, results indicate that combat veterans seeking inpatient treatment for PTSD experience a profound lack of hope. However, this may represent a situation where hope is "gone but not lost." Within our veteran group, higher hope, and particularly belief in ability to attain goals (agency), demonstrated the previously found association with adaptive coping and social support. Furthermore, regression analyses indicated that hope can be distinguished from PTSD and that the relation between hope and coping is not explained by symptoms of distress. Longer-term research that includes outcome data and measures that are more sensitive to treatment-related changes in hope will tell us whether hope can be established or revived among individuals exposed to extreme trauma.

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