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Combat Exposure, Unit Cohesion, and Demographic Characteristics of Soldiers Reporting Posttraumatic Growth

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Abstract

Posttraumatic growth (PTG) refers to the positive cognitive, spiritual, emotional, and social changes that can occur after a traumatic experience. The current study uses data from 1,663 Soldiers who participated in a voluntary survey six months after
redeployment. The purpose of this study was to predict posttraumatic growth from combat exposure, unit cohesion, and demographic characteristics. We found that greater combat exposure and stronger unit cohesion were associated with more PTG. Being married, a minority, and a junior enlisted Soldier were also predictive of greater PTG. Our study defines a group of Soldiers with low PTG who are at risk for adverse psychosocial problems. Our results suggest that unit cohesion could be targeted and strengthened to improve PTG.

**KEYWORDS:** Posttraumatic growth, social support, unit cohesion, Soldiers.

Although post-traumatic stress disorder (PTSD) has been studied extensively in military populations returning from combat, comparatively little has been written about the potentially positive impacts of traumatic combat experiences or posttraumatic growth (Ozer et al., 2008; Tedeschi & Calhoun, 1996). In fact, a literature review by Cornum and colleagues (2011) produced 1,186 articles on PTSD, but only 20 on posttraumatic growth.

The process of discovering positive cognitive, spiritual, social, and emotional changes that can occur as a result of traumatic experiences has been called posttraumatic growth (PTG) and is a relatively recent avenue of research (Calhoun, Cann, Tedeschi, & McMillan, 2000; Calhoun & Tedeschi, 2006; Prati & Pietrantoni, 2009; Tedeschi & Calhoun, 1996; Zoellner & Maercker, 2006). PTG has been defined as having five dimensions, including improvements in the areas of relating to others, realizing new
possibilities, finding personal strength, experiencing spiritual change, and developing a greater appreciation for life (Tedeschi and Calhoun, 1996). Tedeschi and Calhoun define relating to others as the development of greater connections with others and a deeper compassion for others, especially those who have undergone similar traumas. Realizing new possibilities refers to taking a new path in life. Finding personal strength involves the individuals’ beliefs that since they survived the trauma, they can survive anything. Experiencing spiritual change can include religious experiences as well as developing a greater interest in philosophical questions about life. Developing a greater appreciation for life is defined as no longer taking small details in life for granted. Instead, people who have developed a greater appreciation change their priorities and feel lucky to have small joys in their lives.

These five facets of PTG share qualities with the five dimensions of an Army intervention called the Comprehensive Soldier Fitness (CSF) program. The CSF program takes a positive psychology approach in building on Soldiers’ strengths in five core areas including physical, social, emotional, spiritual, and family (Casey, 2011). The goal of the CSF program is to build resilience among Soldiers before deploying in order to reduce the numbers of Soldiers with stress reactions after returning from combat (Casey, 2011). To accomplish this goal, the CSF program begins with an assessment tool that helps Soldiers identify their strengths with regards to resiliency. The results of this assessment are subsequently used to tailor an online-intervention component that is also coupled with a formal training session. In addition, the CSF program trains officers in promoting resiliency throughout their units.
One specific aim of the program is to promote a meaning-making process among Soldiers so that they can experience positive growth from combat exposure (Cornum et al., 2011). This meaning-making process or cognitive processing is essential for achieving posttraumatic growth (Tedeschi & Calhoun, 2004). In addition, self-disclosure of the trauma with others who experienced the combat experiences is necessary in order to gain social support and to create a common narrative of the event (Calhoun, Cann, & Tedeschi, 2010).

Additional theoretical models have been proposed to explain positive stress reactions (Aldwin & Stokols, 1988; Solomon et al., 1987; Zautra & Sandler, 1983). One such model by Aldwin and Stokols (1988) focused on positive effects of life crises and proposed that reactions to stress are influenced by both stressor severity and resources such as social support. Other researchers found from reviewing the literature that posttraumatic growth was related to the perceived threat of the crisis (e.g., controllability) and emotional support gained through talking about and creating meaning from the event with others (Lyons, 1991; Tedeschi & Calhoun, 2004).

Empirical research suggests that people can find positive effects from traumatic experiences. For example, Fontana and Rosenheck (1998) found that among a sample of Vietnam Veterans, greater traumatic exposure was predictive of increased perceptions of positive benefits, indicating that the Veterans could find positive outcomes from traumatic experiences. Tedeschi and Calhoun (1996) found that people who experienced
greater levels of trauma reported increased PTG compared to people who indicated lower levels of trauma.

There is a relative dearth of research predicting PTG from demographic and military characteristics of Soldiers from Operation Enduring Freedom and Operation Iraqi Freedom, as well as studies examining unit cohesion as a factor predicting posttraumatic growth. Gaining a greater understanding of the demographic characteristics of Soldiers who experience PTG could help define the conversely higher-risk population who experiences less PTG. These higher-risk individuals would be ideal targets for interventions that could be employed during a Soldier’s reintegration phase following a deployment. In addition, studying predictors of PTG may help in designing programs or in refining programs such as the CSF intervention to increase PTG, which is beneficial since people who report greater growth from traumatic experiences subsequently exhibit better future adjustment (Linley & Joseph, 2003).

Therefore, based on previous research (Tedeschi & Calhoun, 1996, 2004), we hypothesized that greater combat exposure would be associated with increased PTG. In addition, since social support, especially emotional support, has been associated with fewer PTSD symptoms and more PTG among Soldiers returning from combat (Ozer et al., 2008), we hypothesized that support from Soldiers in one’s unit, referred to as unit cohesion (Griffith & Vaitkus, 1999), would be associated with greater posttraumatic growth. Further, we explored the relationships between a variety of demographic and military variables including marital status, race/ethnicity, and rank with PTG.
METHODS

Participants

This analysis was conducted as part of a larger public health investigation involving combat units who were assigned to a large installation in the continental United States and had recently returned from deployment to Iraq. From the total sample of 6,128 Soldiers from the two infantry Brigade Combat Teams (BCTs), we reduced the sample to focus on males who had indicated only one previous deployment (N = 1,716). Including Soldiers with only one deployment ensured that all of the survey items asking about deployment were answered in reference to the same previous combat situation that the Soldiers had experienced six months prior to the study. In addition, we excluded 53 Soldiers (3.1%) who did not provide battalion membership since we used battalion as a clustering variable in our analyses. Therefore, our final sample included 1,663 Soldiers, both enlisted Soldiers and Officers, from two Brigade Combat Teams who completed questionnaires as part of a larger public health field investigation that was requested by the Installation Commander. Since the U.S. Army Public Health Command has the authority to conduct such investigations under AR 40-5 Preventive Medicine, Institutional Review Board approval and informed consent were not required for this investigation and participation was voluntary.

In terms of demographic characteristics of the sample, the majority of the Soldiers were White (71.7%), had finished high school as their highest education (51.2%) or some college (38.3), were married (55.0%), and were junior enlisted Soldiers or E1-E4
(72.2%). In addition, Soldiers ranged in age from 17-50 years (mean = 25.2, standard deviation [SD] = 5.3) and had served in the Army from less than a year to 36 years (mean = 4.3, SD = 4.1). The demographic characteristics of this sample are similar to Army-wide statistics (Deputy Chief of Staff, 2010). For example, 59.6% of soldiers are married in the Army and 65.7% are White. As expected, Soldiers in these infantry brigades were more likely to be enlisted (93.2% enlisted in this sample compared to 83.9% enlisted Army-wide). Soldiers in our sample also tended to be younger (Army wide average age is 29) and to have served fewer years in the Army (Army-wide average time in service is 6.8 years).

Procedure
Surveys, which were anonymous, were designed by a multi-disciplinary group of social scientists and medical personnel to assess the experiences, attitudes, and climate of the Army population of interest during a rapid epidemiologic consultation (EPICON). EPICONS include focus groups and surveys conducted at installations where Army leadership wants to examine the circumstances surrounding a cluster of violent acts such as suicides or homicides. Surveys were pilot-tested on a group of 20 Soldiers not affiliated with the Brigade Combat Teams. On average, Soldiers in the current sample took 15-22 minutes to complete the survey, which was done in conjunction with their scheduled Soldier Readiness Process (SRP), occurring approximately 6 months after deployment. During the SRP, which includes administrative and medical tasks that must be completed before qualifying for future deployments, Soldiers were provided with a brief orientation as to the purpose and intent of the survey prior to completion.
Measures
The study outcome was posttraumatic growth, while predictors included combat exposure, unit cohesion, as well as demographic and military characteristics including marital status, race/ethnicity, and military rank.

Outcomes
The Posttraumatic Growth Inventory (PTGI), which was developed by Tedeschi and colleagues (1996), uses 21 items to measure positive impacts from stressful experiences. The instructions for each item, which were adapted from the original PTGI to make them relevant to Soldiers read, “Please indicate for each of the statements below the degree to which this change occurred in your life as a result of your deployment(s).” Each item was scored on a 6-point Likert scale from 0 = “I did not experience this change” to 5 = “I experienced this change to a very great degree.” Example items include, “I changed my priorities about what is important in life” and “I have a greater appreciation for the value of my own life.” The Cronbach’s alpha for the PTGI in the Tedeschi & Calhoun (1996) study was .90, while in our sample, the alpha was .96.

Predictors
Combat exposure was measured by fifteen items from a combat exposure scale (Castro, Bienvenu, Hufmann, & Adler, 2000; Hoge, Castro, Messer, McGurk, Cotting, & Koffman, 2004). Respondents completed each item using a yes/no response format.
Example questions include, “Attacked or ambushed” and “Received incoming fire.” The Cronbach’s alpha for this scale in our sample was .89.

Unit Cohesion, which was operationalized as the level of unity exhibited by members in pursuit of a common goal and a sense of belonging (Armfield, 1994; Oliver, Harman, Hoover, Hayes, & Pandhi, 2000;), was measured with three items from a scale used previously in an Army population (Wilk, Bliese, Kim, Tomas, McGurk, & Hoge, 2010). The items began with the stem, “The members of my unit…” and measured three aspects including, “cooperate with each other,” “know they can depend on each other,” and “stand up for each other.” Response options were on a Likert scale and ranged from 0 = Strongly Disagree to 4 = Strongly Agree. The alpha for this scale was .89.

Demographic characteristics included marital status, race/ethnicity, and rank. These items were dichotomized such that 1 = married vs. 0 = single, divorced, separated, or widowed; 1 = White vs. 0 = Minority; and 1 = junior enlists (E1-E4) vs. 0 = non-commissioned officers (E5-E9), warrant officers (W1-W3), or commissioned officers (O1-O6).

DATA ANALYSIS

Univariate statistics were generated before running exploratory and confirmatory factor analyses (EFAs and CFAs). For the Posttraumatic Growth Inventory (PTGI) with our data, an EFA supported a one-factor rather than the five-factor model proposed in the literature (Tedecshi & Calhoun, 1996). The one-factor PTGI scale was chosen since it had a primary Eigenvalue of 12.23 and loadings from .64 to .84, along with a Cronbach’s
alpha of .96. To reduce the loss of respondents due to missing data on each individual item in the PTGI (e.g., 2.0 - 4.4% of respondents were missing on any given scale item), we calculated average scale scores for respondents who had completed at least 60% of the scale items. Therefore, we eliminated 12 respondents from the analysis since they had not completed at least 60% of the items. Next, we ran a confirmatory factor analysis with the PTGI scale items specifying a one-factor model and found adequate model fit for inclusion in the larger structural equation model (Hu & Bentler, 1995).

We continued to conduct factor analyses with the Combat Exposure scale and the Unit Cohesion scale. The CFA with the Combat Exposure scale had good model fit with a Comparative Fit Index (CFI) = .99 and a Root Mean Squared Error of Approximation (RMSEA) = .05 (Hu & Bentler, 1995). The CFA with the three items from the Unit Cohesion scale produced a primary Eigenvalue of 2.46 and satisfactory item loadings, which ranged from .80 to .94. Finally, we entered all three factors (i.e., PTGI, Combat Exposure, and Unit Cohesion) along with the three demographic and military characteristics (i.e., rank, race/ethnicity, and marital status) into a structural equation model.

RESULTS

Frequencies for individual combat exposure items indicated a range of experiences among Soldiers from 3.4% indicating that they had engaged in hand-to-hand combat to 74.9% reporting that they had received incoming fire (Table 1). Means for the three unit cohesion items ranged from 2.36 to 2.42, indicating moderately positive responses to
questions regarding social support from one’s fellow unit members. Means for the individual PTGI items ranged from 1.05, with 1 representing a small degree of change, for the item, “I learned a great deal about how wonderful people are” to 2.58, representing a moderate degree of change for the item, “I have a greater appreciation for the value of my own life” (Table 2). In addition, a correlation matrix between PTG, combat exposure, and unit cohesion indicated significant relationships between PTG and combat exposure ($r = .07$, $p < .001$) and between PTG and unit cohesion ($r = .03$, $p < .001$) (Table 3). There was no significant relationship between combat exposure and unit cohesion.

The structural equation model (Figure 1), which fit several multiple regressions simultaneously, achieved adequate fit with a CFI = .97 and a RMSEA = .04 (Hu & Bentler, 1995). This model indicated that the strongest predictor of posttraumatic growth was combat exposure such that more combat exposure was associated with greater PTG ($\beta = .23$, $p < .001$). In addition, unit cohesion ($\beta = .11$, $p < .001$), being a junior enlisted Soldier ($\beta = .06$, $p < .01$), and being married ($\beta = .03$, $p < .05$), were associated with greater PTG, while being White ($\beta = -.18$, $p < .001$) was associated with less PTG.

**DISCUSSION**

As hypothesized, increased combat exposure was positively associated with PTG. This result supports previous research with the PTGI (Tedeschi & Calhoun, 1996), which showed a linear relationship between trauma severity and posttraumatic growth. Schnurr
and colleagues (1993) suggest that positive psychological changes occurring in their study of Vietnam veterans may have been the result of stress inoculation, whereby individuals gradually develop a tolerance for increasing stress. They also suggest that the positive changes are due to developing adaptive coping skills, whereby people build mastery and confidence in personal abilities to deal effectively with stressful situations. It is possible that these two processes may explain the positive association between combat exposure and PTG in the current analyses as well. Therefore, future research should examine these factors such as self-esteem and adaptive coping, as well as additional individual characteristics such as optimism, internal locus of control, and hardiness as potential mediators to further elucidate the relationship between combat exposure and PTG (Zoellner & Maercker, 2006).

We also found that greater unit cohesion was associated with higher levels of PTG. This result is consistent with extant theoretical and empirical research on the positive associations between social support and PTG (Tedeschi & Calhoun, 1996, 2004). However, the beta weight or strength of association for this predictor was much smaller than expected. It is possible in our study that the availability of supportive others alone does not predict PTG, but rather, the cognitive and social processes, such as emotional disclosure and shared meaning making, that have been associated with increased social support, are responsible for increased PTG (Tedeschi & Calhoun, 2004). Soldiers in our sample may have had supportive unit members, but may not have fully utilized these resources to accomplish the cognitive processing that is necessary to produce greater PTG (Tedeschi & Calhoun, 1996). Future research should examine the optimal
circumstances surrounding Soldiers’ disclosures of their traumatic combat-related experiences with others in order to increase their potential for PTG (Tedeschi & Calhoun, 1996; Prati & Pietrantoni, 2009).

We also found significant associations between the demographic variables and posttraumatic growth. For example, being White was associated with less growth. Further research is needed to understand cultural differences that may be responsible for this racial/ethnic difference. These potential cultural factors may in turn suggest ways to increase PTG among White Soldiers who may not otherwise experience these positive outcomes.

Married Soldiers reported significantly greater PTG, although this relationship was of a small magnitude. Since marriage has historically been conceptualized as a source of social and emotional support for individuals (House, Landis, & Umberson, 1988), it is unclear why marriage had a small significant effect on PTG. Further refinement of the marriage variable may be necessary to improve our understanding. For example, future models could take into account the quality of marriage partner support and the positive as well as negative effects of marriage on the Soldier. Marriage in this case may not be as much of a positive resource for the soldier, compared to marriage in a civilian population. This might be due to strain on the marriage during deployment or during the reintegration phase. Long absences provide additional stress on military marriages that may not be present in civilian marriages.
Finally, we found that junior enlisted Soldiers experienced more PTG, while senior enlisted Soldiers and Officers reported less PTG. This difference may be due to higher ranking individuals having more resilience. Research suggests that those with the greatest resilience have the least growth (Tedeschi & McNally, 2011), likely because these individuals have achieved a positive outlook already and have less room for further growth. Therefore, these higher ranking Soldiers may have scored lower on the PTGI measure because they did not achieve any additional growth from the previous deployment.

**Limitations**

One limitation of these data is the cross-sectional study design. Therefore, definitive conclusions regarding cause and effect in the data cannot be determined. In order to explain more variance in the PTG outcome, other variables should be added to the model, such as optimism and adaptive coping skills. Also, researchers who developed the concept of PTG describe cognitive processing or productive rumination regarding the traumatic experience as vital precursors to the development of PTG (Calhoun et al., 2000; Tedeshi & Calhoun, 1996). Future research should incorporate the Event Related Rumination Inventory (Cann, Calhoun, Tedeschi, Priplett, Vishnevsky, & Lindstrom, 2011) to measure this important potential mediator between combat exposure and posttraumatic growth. In terms of measurement, the effect of unit cohesion on PTG may have been attenuated since the operationalization of unit cohesion was very narrow. In terms of generalizability, our selected sample of Soldiers who had deployed only once...
was much younger on average than the entire sample of Soldiers who participated in our study. Also, our sample only included males.

**CONCLUSIONS**

Our study emphasizes the need for a program such as the Comprehensive Soldier Fitness program that builds resilience and posttraumatic growth by focusing on physical, social, emotional, spiritual, and family (Casey, 2011). Strengthening unit cohesion before, during, and after combat could be an important preventive action that could increase the potential for PTG after combat exposure. Our study underscores the need for strong unit cohesion in helping Soldiers attain greater PTG.

Our study is unique because it examines PTG among veterans of Operation Iraqi Freedom and Operation Enduring Freedom. The majority of previous studies on PTG have either focused on a wide variety of sample respondents or on military service veterans who had served in World Wars I and II, Korea, Vietnam, and/or The Gulf War (Aldwin, Levenson, & Spiro, 1994; Feder, Southwick, Goetz, Wang, Alonso, Smith, et al., 2008; Maguen, Vogt, King, King, & Litz, 2006; Sledge, Boydstun, & Rabe, 1980). Since the OEF and OIF conflicts have been described as having “unprecedented complexity” (Cornum et al., 2011, p. 4), “operating in an era of persistent conflict” (Casey, 2011, p. 1), and have the highest suicide rates, we would expect that PTG would be qualitatively and quantitatively different among Soldiers from these conflicts than the posttraumatic growth found among veterans from previous wars. It is likely that since the members of
our sample were deployed to Iraq in infantry brigades, the Soldiers in the current sample also experienced the complexities of war.

PTG may be an important marker for adaptive coping and more positive reactions to traumatic experiences (Zoellner & Maercker, 2006). Understanding who is more likely to experience greater levels of PTG could help researchers conversely identify higher-risk groups of Soldiers who are less likely to experience PTG, which could likely lead to future PTSD symptoms (Zoellner & Maercker, 2006). In addition, understanding the relationships between predictors of greater PTG, such as high levels of social support from unit members could support decisions to use resources on posttraumatic growth interventions before, during, and after combat experiences.

REFERENCES


Table 1. Means, frequencies and rotated loadings for factor items (N=1,663).

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (% yes)</th>
<th>Factor Loadings</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combat Exposure&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attacked or ambushed</td>
<td>918 (58.1)</td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>Received incoming fire</td>
<td>1179 (74.9)</td>
<td>.67</td>
<td></td>
</tr>
<tr>
<td>Shooting at enemy</td>
<td>778 (49.6)</td>
<td>.94</td>
<td></td>
</tr>
<tr>
<td>Responsible for death of non-combatant</td>
<td>153 (9.8)</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>Responsible for death of enemy combatant</td>
<td>437 (27.7)</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>Saw dead bodies</td>
<td>1124 (71.0)</td>
<td>.86</td>
<td></td>
</tr>
<tr>
<td>Know someone seriously injured or killed</td>
<td>1159 (73.3)</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td>Participated in de-mining operations</td>
<td>198 (12.6)</td>
<td>.56</td>
<td></td>
</tr>
<tr>
<td>Saw ill or injured women or children</td>
<td>713 (45.0)</td>
<td>.73</td>
<td></td>
</tr>
<tr>
<td>You were wounded or injured</td>
<td>177 (11.2)</td>
<td>.53</td>
<td></td>
</tr>
<tr>
<td>You were hit, but saved by protective gear</td>
<td>313 (19.7)</td>
<td>.71</td>
<td></td>
</tr>
<tr>
<td>Had a buddy shot or hit near you</td>
<td>426 (26.9)</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>Cleared or searched homes or buildings</td>
<td>926 (58.6)</td>
<td>.77</td>
<td></td>
</tr>
<tr>
<td>Engaged in hand-to-hand combat</td>
<td>54 (3.4)</td>
<td>.60</td>
<td></td>
</tr>
<tr>
<td>Saved the life of a soldier or civilian</td>
<td>241 (15.3)</td>
<td>.68</td>
<td></td>
</tr>
<tr>
<td>Unit Cohesion&lt;sup&gt;b,c&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members of my unit cooperate with each other</td>
<td></td>
<td>.82</td>
<td>2.41 (.99)</td>
</tr>
<tr>
<td>Members of my unit know they can depend on each other</td>
<td></td>
<td>.94</td>
<td>2.42 (.99)</td>
</tr>
</tbody>
</table>
Members of my unit stand up for each other | .80 | 2.36 (1.06)

*a* Fit statistics for exploratory factor analysis (EFA): CFI = .99, RMSEA = .05, free parameters = 15, factor determinacy = .98. Eigenvalue = 8.64.

*b* Unit Cohesion items range from 0-4.

*c* Fit Statistics for EFA: CFI = 1.00, RMSEA = .00, factor determinancy = .96, Eigenvalue = 2.46.
Table 2. Means and frequencies for observed independent variables (N = 1,663)\textsuperscript{a}

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttraumatic Growth Inventory (Item average)\textsuperscript{b}</td>
<td>1.81 (1.26)</td>
</tr>
<tr>
<td>I have a greater appreciation for the value of my own life</td>
<td>2.58 (1.81)</td>
</tr>
<tr>
<td>I know better that I can handle difficulties</td>
<td>2.38 (1.67)</td>
</tr>
<tr>
<td>I have a greater feeling of self-reliance</td>
<td>2.37 (1.73)</td>
</tr>
<tr>
<td>I changed my priorities about what is important in life</td>
<td>2.31 (1.72)</td>
</tr>
<tr>
<td>I discovered that I’m stronger than I thought I was</td>
<td>2.11 (1.75)</td>
</tr>
<tr>
<td>I can better appreciate each day</td>
<td>2.06 (1.74)</td>
</tr>
<tr>
<td>I am better able to accept the way things work out</td>
<td>2.03 (1.68)</td>
</tr>
<tr>
<td>I am more likely to try to change things which need changing</td>
<td>2.02 (1.67)</td>
</tr>
<tr>
<td>I more clearly see that I can count on people in times of trouble</td>
<td>1.97 (1.63)</td>
</tr>
<tr>
<td>I put more effort into my relationships</td>
<td>1.96 (1.79)</td>
</tr>
<tr>
<td>I am able to do better things with my life</td>
<td>1.96 (1.69)</td>
</tr>
<tr>
<td>I developed new interests</td>
<td>1.88 (1.69)</td>
</tr>
<tr>
<td>I have a greater sense of closeness with others</td>
<td>1.80 (1.64)</td>
</tr>
<tr>
<td>I established a new path for my life</td>
<td>1.60 (1.67)</td>
</tr>
<tr>
<td>New opportunities are available which wouldn’t have been otherwise</td>
<td>1.50 (1.60)</td>
</tr>
<tr>
<td>I have a better understanding of spiritual matters</td>
<td>1.46 (1.65)</td>
</tr>
<tr>
<td>I have more compassion for others</td>
<td>1.35 (1.56)</td>
</tr>
<tr>
<td>I have a stronger religious faith</td>
<td>1.32 (1.65)</td>
</tr>
<tr>
<td>I better accept needing others</td>
<td>1.19 (1.46)</td>
</tr>
<tr>
<td>I am more willing to express my emotions</td>
<td>1.08 (1.44)</td>
</tr>
</tbody>
</table>
I learned a great deal about how wonderful people are | 1.05 (1.44)

* Sample sizes may vary due to missing data on individual items.

** Range = 0 to 5.
Table 3. Correlation matrix with Posttraumatic Growth, Combat Exposure, and Unit Cohesion.

<table>
<thead>
<tr>
<th>Variable</th>
<th>I</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Posttraumatic Growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II Combat Exposure</td>
<td>.07***</td>
<td></td>
</tr>
<tr>
<td>III Unit Cohesion</td>
<td>.03***</td>
<td>.01</td>
</tr>
</tbody>
</table>

***p<.001
Figure 1. Associations between combat exposure, social support, and demographic characteristics with posttraumatic growth. (N=1,663). Model fit statistics: Comparative Fit Index (CFI) = .97, Root Mean Squared Error of Approximation (RMSEA) = .04.