Multicultural Personality and Posttraumatic Stress in U.S. Service Members

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Objective: Modern military missions place numerous demands on service members, including tactical, personal, and cultural challenges. The purpose of this study was to explore how domains of multicultural personality (cultural empathy, open-mindedness, social initiative, emotional stability, and flexibility) and combat exposure relate to posttraumatic stress disorder (PTSD) in service members.

Method: Participants (\(N = 163\)) completed the Multicultural Personality Questionnaire, Combat Exposure Scale, and PTSD Checklist–Military as part of an online survey. The majority of participants were Caucasian (87\%), mean age was 33 years, and all were deployed at least once to Iraq or Afghanistan.

Results: Regression results indicated that higher levels of combat exposure and open-mindedness and lower levels of flexibility and emotional stability were significant predictors of higher PTSD severity. The interactions between combat exposure and flexibility and combat exposure and openness were also significant.


Keywords: military; posttraumatic stress disorder; multicultural personality characteristics; Iraq and Afghanistan

In well over a decade of war, spanning fronts in Iraq and Afghanistan, U.S. military personnel have faced unique, complex, and continuous challenges. The surge in operational tempo to meet the demands of both theaters placed consistent strain on service members’ personal health and relationships, the effects of which can continue for years. Growing research has begun to paint a clearer picture of the mental health effects associated with these wars, with early reports estimating that roughly 16\%–17\% of veterans of the Iraq war met screening criteria for posttraumatic stress disorder (PTSD), depression, or anxiety (Hoge et al., 2004). Similarly, more recent work found that approximately 22\% of Iraq and Afghanistan veterans were diagnosed with PTSD in the U.S. Department of Veterans Affairs (VA) system between 2002 and 2008 (Seal et al., 2009). Reducing PTSD severity is of the utmost importance given its significant effect on social and occupational functioning. In a cross-sectional study including active and National Guard Operation Iraqi Freedom (OIF) veterans, prevalence rates of those who met criteria for depression or PTSD with some functional impairment ranged between 23\% and 31\%, and even when using a stricter case definition with severe functional impairment, rates still ranged between 9\% and 14\% (Thomas et al., 2010).

Underscoring the mental health effect of combat experiences in Iraq and Afghanistan, an analysis of data from the mandated Post-Deployment Health Assessment, showed that roughly one third of veterans returning from Iraq accessed mental health services within the first year after deployment (Hoge, Auchterlonie, & Miliken, 2006). Results also showed combat duty in Iraq was related to attrition from military service, raising mental health as well as operational concerns. These findings signal a need for greater understanding of the psychological risks of deployment.
Military Cultural Stress

Modern warfare demands that service members not only navigate unfamiliar geographical terrain but also negotiate an immensely diverse human landscape. In a context in which a cultural misstep can be dangerous, military personnel must frequently interact with, influence, and work alongside foreign community members and other international forces to be successful. Monitoring sociocultural understanding while simultaneously striving to maintain security creates a higher cognitive demand and greater challenge for the unit and individual. Bartone (2005) identified a lack of cultural understanding as potentially adding to feelings of isolation, ambiguity, and powerlessness in deployed soldiers. As prior research has investigated in the civilian business sector (e.g., Aycan, 1997; Shaffer, Harrison, Gregersen, Black, & Ferzandi, 2006), examining associations between such factors as multicultural effectiveness and psychological adjustment in the military population may provide important directions for not only military mental health but also selection and training. Although immersion in and reentry from a foreign culture is an explicit aspect of modern military deployments, military cultural stress and adaptation remain relatively unexplored domains (Azari, Dandeker, & Greenberg, 2010).

Military cultural stress, with its ongoing nature and relation to other forms of combat stress, presents a unique area of study with increasingly relevant human and operational implications (Azari et al., 2010). More research is needed to identify characteristics that may help mitigate the effect of cultural stress on service members and aid in adjustment. Multicultural personality is one construct that may help in this effort.

Multicultural Personality

The construct of multicultural personality, which encompasses aspects of multicultural adaptability and intercultural effectiveness (Ponterotto et al., 2007), has become an important focus in expatriate research as modern globalization has spurred a growing interest in cultural competence within the psychology field. Despite considerable research dedicated to the assessment and identification of multiculturally effective civilian expatriates who may adapt well or even thrive in foreign cultures (Aycan, 1997; Shaffer et al., 2006), little to no research has empirically examined these factors in the military. Multicultural personality provides one avenue from which to begin.

Van der Zee and Van Oudenhoven (2000, 2001) defined multicultural personality as comprising five distinct domains: cultural empathy, open-mindedness, emotional stability, social initiative, and flexibility. Cultural empathy describes a person’s ability to empathize with the thoughts, feelings, and behaviors of those from varying cultural backgrounds. Open-mindedness indicates an individual’s tendency to hold an open, unprejudiced mindset toward different groups, values, and cultural norms. Social initiative describes a tendency to actively approach social situations and take initiative. Emotional stability depicts the propensity to maintain calm as opposed to exhibiting strong emotional reactions during high stress situations. Finally, flexibility is the propensity to adjust to new, unknown situations and view them as challenges (Van der Zee & Van Oudenhoven, 2001).

Research with international civilian samples has found relationships between multicultural personality factors and psychological well-being, physical health, and life satisfaction (Ponterotto, 2008). Multicultural personality dimensions have also been predictive of levels of personal, social, and professional adjustment among expatriate workers (Van Oudenhoven, Mol, & Van der Zee, 2003). Another study investigating multicultural personality domains conducted with Dutch college students found that those with higher scores on the Multicultural Personality Questionnaire appraised potentially threatening intercultural scenarios more positively and had fewer negative reactions than those with lower scores, a finding that highlights the relevance of this construct for military personnel, who may face a range of threatening intercultural experiences overlaid with varying levels of combat exposure (Van der Zee, Van Oudenhoven, & Grijs, 2004). Although deployment is a unique type of expatriation in which the cultural demands placed on service members are coupled with the potential for life threat, extant research suggests
that multicultural personality characteristics may be beneficial for buffering stressors such as those that may be experienced during combat exposure.

As the wars in Iraq and Afghanistan called for the military to meet new operational demands, the resulting mental health effects have challenged psychologists to identify ways to better treat prevalent diagnoses and bolster resilience in a force whose working environment spans the globe. Research applying the multicultural personality framework to a military population may provide needed information about how this construct fits within a military context, how multicultural personality dimensions may buffer the potentially negative effects of combat exposure, and, thus, how they relate to psychological distress levels. In addition, it may help inform innovative efforts of prevention and intervention.

Purpose of Study

Given the relevance of multicultural stress to a military career and research that suggests that certain personality factors may help buffer the effects of this stress, it is surprising that limited research has examined multicultural personality characteristics among military personnel. To address this gap in the literature, the purpose of the present study is to investigate the relationships between multicultural personality characteristics and PTSD severity in service members who have been deployed. Based on the available research literature, we hypothesized that dimensions of multicultural personality (cultural empathy, open-mindedness, social initiative, emotional stability, and flexibility) would be negatively related to PTSD severity. We also expected that greater combat exposure would be positively related to PTSD severity. Further, we aimed to investigate whether multicultural personality variables would moderate the effects of combat exposure on PTSD severity. Because no prior literature has examined these relationships, our moderator analyses were exploratory in nature.

Method

Participants

A total of 163 service members who had deployed at least once to Iraq or Afghanistan since 2001 completed the online survey. Respondents’ ages ranged from 21 to 57 years, with a mean age of 33 (standard deviation $[SD] = 7.90$). Regarding race and ethnicity, the majority of the participants self-identified as White (87%; $n = 140$), followed by 6% ($n = 10$) Hispanic or Latino, 3% ($n = 5$) Asian, 4% ($n = 6$) African American, about 2% ($n = 3$) American Indian or Alaska Native, 6% ($n = 1$) Native Hawaiian or Other Pacific Islander, and 1% ($n = 2$) identified as other. Participants could indicate more than one category for race or ethnicity. As the original concept for this study was to examine only combat arms branches for which respondent gender would have been all male, gender was inadvertently left out of the survey initially and was added after many respondents had already participated. Thus, percentages of males and females completing the survey could only be partially determined. Of those with gender recorded ($n = 46$), 87% ($n = 40$) were male.

The sample was made up of about 66% ($n = 106$) officers and 34% ($n = 55$) enlisted personnel. Participants ranged in number of previous deployments, with 41% ($n = 66$) having deployed once, 30% ($n = 48$) having deployed twice, 19% ($n = 30$) having deployed three times, and 11% ($n = 17$) having deployed more than three times. A large majority of respondents were members of the Army (90%, $n = 145$), followed by the Navy (4%, $n = 6$), Marine Corps (3%, $n = 5$), and Air Force (3%, $n = 4$). In terms of duty status, most service members were Active Duty (65%, $n = 104$), followed by Reserve (19%, $n = 30$), National Guard (13%, $n = 21$), and Active Guard (2%, $n = 3$). Regarding participants’ levels of cultural or language training prior to deployment, 16% ($n = 26$) of respondents indicated receiving more than 40 hours of cultural or language training, 29% ($n = 47$) had 10–40 hours, 45% ($n = 72$) had less than 10 hours, and 10% ($n = 16$) reported no such training.

Regarding the depth of respondents’ interactions with foreign personnel during deployment, 49% ($n = 79$) indicated having “extensive” interactions (i.e., communication with foreign
personnel was a primary part of role), 21% (n = 34) “significant” interactions (i.e., several significant interpersonal interactions with foreign personnel which required lengthy or repeated communications), 16% (n = 26) “somewhat significant” interactions (i.e., some interpersonal interactions with foreign personnel which required communication), and 14% (n = 22) “minimal” interactions (i.e., had few interactions with foreign personnel or interactions were very brief or not in-depth).

Measures

Multicultural Personality Questionnaire (MPQ; Van der Zee & Van Oudenhoven, 2001). The MPQ is a 78-item Likert-type scale designed to measure multicultural effectiveness. The scale assesses five dimensions: Cultural Empathy, Open-Mindedness, Social Initiative, Emotional Stability, and Flexibility. Respondents were asked to rate the extent to which each statement applied to him or her on a 5-point scale, ranging from 1 (not at all applicable) to 5 (totally applicable). Example items include: “Tries to understand other people’s behaviors” (Cultural Empathy); “Is intrigued by differences” (Open-Mindedness); “Makes contacts easily” (Social Initiative); “Considers problems solvable” (Emotional Stability); and “Changes easily from one activity to another” (Flexibility). Internal consistency for scales on the MPQ ranged from .74 (Flexibility) to .91 (Emotional Stability; Van der Zee & Van Oudenhoven, 2001).

Construct validity has been demonstrated through expected correlations between dimensions of the MPQ and the Big Five personality traits (Leone, Van der Zee, Van Oudenhoven, Perugini, & Ercolani, 2005). Specifically, correlations were highest between Cultural Empathy (r = .39) and Open-Mindedness (r = .50) with Openness to Experience, Social Initiative and Extraversion (r = .76), Emotional Stability and Neuroticism (r = −.73), and Flexibility and Conscientiousness (r = −.46). Internal consistency coefficients for scales in the current study were .86 (Cultural Empathy), .88 (Open Mindedness), .87 (Social Initiative), .84 (Emotional Stability), and .70 (Flexibility).

Combat Exposure Scale (CES; Keane et al., 1989). The Combat Exposure Scale is a seven-item measure designed to evaluate respondents’ exposure to a variety of combat experiences. Responses are rated on a 5-point scale with item-specific anchors. Total scores indicate the severity of combat exposure, with higher scores signifying higher rates of exposure. Example items include: “Did you ever go on combat patrols or have other dangerous duty?” and “How often did you see someone hit by incoming or outgoing rounds?” Adequate internal consistency reliability (coefficient alpha = .85) and test-retest reliability over a 1-week time span (r = .97) have been reported (Keane et al., 1989). Keane et al. (1989) found support for the construct validity of the CES with principal components factor analysis indicating a single construct that accounted for 58% of the variance. Internal consistency reliability for the current study was .81.

PTSD Checklist-Military Version. (PCL-M; Weathers, Litz, Herman, Huska, & Keane, 1993). The PCL-M is a 17-item measure of PTSD symptomatology based on the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) criteria (American Psychiatric Association, 2000), the standard for assessing PTSD at the time of this study. Respondents indicated on a 5-point scale, ranging from 1 (not at all) to 5 (extremely), how much they have been troubled by a particular problem in the past month. Total scores range from 17 to 85, with higher scores indicating greater PTSD symptom severity. Example items include: “Repeated, disturbing memories, thoughts, or images about the stressful experience” and “Avoiding thinking or talking about the stressful experience.” Blanchard, Jones-Alexander, Buckley, and Forneris (1996) found support for the construct validity of the PCL through a high correlation between the PCL and the Clinician-Administered PTSD Scale (r = .93, p < .0001; Blake et al., 1990). Prior research with military samples supports the internal consistency and test-retest reliability of the measure with coefficients of .94 and .96 respectively (Blanchard et al., 1996; Weathers et al., 1993). Internal consistency reliability for the current study was .95.
Procedure

An Internet survey was used to collect data for the current study. Participants were recruited via e-mail announcements sent through Army Knowledge Online (the primary Intranet system for the Army), veteran listserves and interest groups, and personal contacts of the first author. Participants used a hypertext link to connect to the survey website, where an informed consent with further information about the study was provided. Potential participants were informed that the purpose of this study was “to obtain information regarding attitudes and characteristics related to resilience and mental health.” Participants indicated their consent by moving forward to the survey items. Data were collected and stored through a secure server.

Data Analysis

Available case analysis (AIA; Parent, 2013) was used to deal with item-level missingness among the completed surveys received. With AIA, mean scale scores are calculated without the need for imputation of values. Parent (2013) found this procedure produced similar results to both mean substitution and multiple imputation methods. No patterns of missingness in item responses were observed in the current dataset. Means for all scales were calculated when at least 80% complete data were available for that particular scale. Thus, any cases that had one or more scales on which a participant did not answer more than 20% of the questions were excluded (Schlomer, Bauman, & Card, 2010). This method resulted in the exclusion of two participants. Thus, the final sample comprised 161 participants.

Means, standard deviations, internal consistency reliability estimates, and inter-correlations among all continuous variables were computed. Prior to regression analyses, independent variables were checked for their appropriateness for multivariate analyses. Skewness, kurtosis, and multicollinearity were in acceptable ranges. To investigate our hypotheses, correlational analyses among multicultural personality factors, combat exposure, and PTSD severity were conducted. Next, a hierarchical linear regression was performed to determine which variables were significantly associated with PTSD. Because MPQ factors have not been examined previously among U.S. service members, we included all five subscales in our PTSD model to explore significant relationships.

Step 1 of the model included combat exposure and step 2 included the moderating variables (MPQ scales). To investigate our exploratory hypothesis about the possible moderating effect of multicultural personality factors on combat exposure, the following interactions were entered as step 3 in the model: combat exposure x openness, combat exposure x flexibility, combat exposure x cultural empathy, combat exposure x social initiative, and combat exposure x emotional stability. Scores for all variables included in the interactions were first mean-centered, and the centered values were then multiplied to obtain the interaction terms (Aiken & West, 1991). Plots of low and high levels of multicultural personality factors and combat exposure corresponding to one standard deviation above and below the mean were constructed to illustrate their relationships with PTSD severity (Aiken & West, 1991).

Results

Means, standard deviations, and correlations among variables using mean scores are shown in Table 1. The mean score on the CES (mean [M] = 2.61; SD = 1.33) indicated a moderate level of combat exposure for this sample (Keane et al., 1989). The mean for PTSD symptom severity on the PCL-M was 1.94 (SD = .86), slightly below the middle range for this measure. Mean scores for scales of the MPQ were slightly above middle range (all means at least 3.2 or higher). Correlational analyses indicated significant negative relationships between three MPQ scales and PTSD severity: Social Initiative (r = −.30, p < .001), Emotional Stability (r = −.45, p < .001), and Flexibility (r = −.36, p < .001). Combat exposure was significantly positively related to PTSD (r = .29, p < .001). Open-Mindedness (r = −.00, p = .96) and Cultural Empathy (r = −.15, p = .05) were not significantly related to PTSD severity.
Table 1
Means, Standard Deviations, and Correlations for Study Variables (\(N = 163\))

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PTSD Severity</td>
<td>1.94 (.86)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Combat Exposure</td>
<td>2.61 (1.33)</td>
<td>.29*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Cultural Empathy</td>
<td>3.61 (.56)</td>
<td>-.15</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Open-Mindedness</td>
<td>3.59 (.62)</td>
<td>-.00</td>
<td>.04</td>
<td>.60*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Social Initiative</td>
<td>3.73 (.53)</td>
<td>-.30*</td>
<td>.06</td>
<td>.56*</td>
<td>.58*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Emotional Stability</td>
<td>3.34 (.49)</td>
<td>-.45*</td>
<td>.12</td>
<td>.29*</td>
<td>.28*</td>
<td>.56*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Flexibility</td>
<td>3.20 (.49)</td>
<td>-.36*</td>
<td>.02</td>
<td>.17</td>
<td>.36*</td>
<td>.47*</td>
<td>.45*</td>
<td></td>
</tr>
</tbody>
</table>

Note. \(M = \) mean; \(SD = \) standard deviation; PTSD = posttraumatic stress disorder. A Bonferroni correction was applied. *\(p < .008\).

Table 2
Hierarchical Multiple Regression Analyses Predicting PTSD Severity

<table>
<thead>
<tr>
<th>Predictor</th>
<th>(R^2)</th>
<th>(\Delta R^2)</th>
<th>(B)</th>
<th>(SE)</th>
<th>(\beta)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combat Exposure(^a)</td>
<td>.09</td>
<td>.09***</td>
<td>.19</td>
<td>.05</td>
<td>.29***</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combat Exposure(^a)</td>
<td>.40</td>
<td>.32***</td>
<td>.22</td>
<td>.04</td>
<td>.34***</td>
</tr>
<tr>
<td>Cultural Empathy</td>
<td>-.22</td>
<td>.13</td>
<td>-.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open-Mindedness(^a)</td>
<td>.44</td>
<td>.12</td>
<td>.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Initiative</td>
<td>-.17</td>
<td>.15</td>
<td>-.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>-.65</td>
<td>.14</td>
<td>-.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility(^a)</td>
<td>-.42</td>
<td>.13</td>
<td>-.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3(^b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combat Exposure(^a)</td>
<td>.45</td>
<td>.05**</td>
<td>.20</td>
<td>.04</td>
<td>.31***</td>
</tr>
<tr>
<td>Cultural Empathy</td>
<td>-.25</td>
<td>.13</td>
<td>-.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open-Mindedness(^a)</td>
<td>.42</td>
<td>.11</td>
<td>.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Initiative</td>
<td>-.12</td>
<td>.15</td>
<td>-.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>-.68</td>
<td>.13</td>
<td>-.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility(^a)</td>
<td>-.44</td>
<td>.13</td>
<td>-.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combat Exposure x Open-Mindedness</td>
<td>.17</td>
<td>.07</td>
<td>.17*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combat Exposure x Flexibility</td>
<td>-.26</td>
<td>.08</td>
<td>-.21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. \(SE = \) standard error; PTSD = posttraumatic stress disorder. \(N = 161\), \(R^2 = .45\). \(a\)Centered values were used for variables included in the interaction term. \(b\)The interactions between combat exposure x cultural empathy, combat exposure x social initiative, and combat exposure x emotional stability were not significant and were dropped from the final model. *\(p < .05\). **\(p < .01\). ***\(p < .001\).

The overall hierarchical regression model predicting PTSD severity was significant, \(F(8, 152) = 15.41, p < .001, R^2 = .45\). Combat exposure (\(\beta = .31, p < .001\)), flexibility (\(\beta = -.25, p < .01\)), open-mindedness (\(\beta = .30, p < .001\)), emotional stability (\(\beta = -.39, p < .001\)), the combat exposure x flexibility interaction (\(\beta = -.21, p < .01\)), and the combat exposure x open-mindedness interaction (\(\beta = .17, p < .05\)) emerged as significant predictors (see Table 2 for all steps in the model). Cultural empathy almost reached statistical significance (\(\beta = -.16, p = .053\)). Because these two interactions were the only ones that reached significance, the remaining three interactions were dropped from the final model. The interaction plot for combat exposure x flexibility (Figure 1) indicated that at moderate and high levels of combat exposure, higher levels of flexibility were associated with lower levels of PTSD severity. However, at low levels of combat exposure, this effect of flexibility was not apparent.
Similarly, in terms of the combat exposure x openness interaction (Figure 2), at low levels of combat exposure, there was little impact of degree of openness on PTSD severity. At moderate and high levels of combat exposure, lower levels of openness were associated with lower levels of PTSD severity. Further, Open-mindedness functioned as a suppressor variable in the regression model (Cramer, 2003). Open-mindedness was negatively related to PTSD severity in correlational analyses ($r = −.00, p = .96$), but was a significant positive predictor of PTSD severity ($β = .30$, $p < .001$) in regression analyses when included in the model with all predictors included due to the suppression of extraneous variance.
Discussion

The current study examined multicultural personality characteristics in relation to PTSD severity in service members who had been deployed to Iraq or Afghanistan. Although a current dearth of research on multicultural personality characteristics within a military context prevents an extensive analysis of our findings compared to other military research, our results appear largely consistent with research suggesting links between MPQ factors and aspects of well-being and adjustment in civilian populations (Ponterotto et al., 2007; Ponterotto, 2008; Van Oudenhoven et al., 2003).

Our results suggest the relevance of certain multicultural personality characteristics for service member mental health, partially supporting our hypotheses. Our findings that higher emotional stability and flexibility were associated with lower PTSD severity suggest that these constructs may serve as protective factors for current service members against PTSD. Emotional stability, or the tendency to maintain calm during high stress situations, has previously been shown to be the most significant predictor of psychological adjustment of all MPQ scales (Van Oudenhoven et al., 2003). Van Oudenhoven and Van der Zee (2002) have suggested that emotional stability may be the most salient factor upon one's initial entrance into a foreign culture, while the remaining factors may become increasingly important for adjustment after the initial culture shock has decreased.

Similarly, results regarding flexibility, or a tendency to adapt to new situations and appraise them as challenges, also appear consistent with existing civilian literature. Prior work with civilian populations found that the cognitive appraisals of stressors may act as a moderating variable in PTSD (Agaibi & Wilson, 2005). In our sample, higher levels of flexibility were particularly protective in the face of high combat exposure, and appeared to buffer the effects of combat exposure on PTSD severity. It may be that higher levels of combat exposure demand a more complex cognitive approach for successful coping. Flexibility may have implications for how one appraises stressors including cultural differences (e.g., more or less threatening). It may influence the meaning one assigns to different culture-related stressful events and interpersonal challenges, and may affect the likelihood of approaching versus avoiding unfamiliar yet potentially helpful coping resources in a new culture.

Thus, our findings related to emotional stability and flexibility may have implications for more focused military resilience training and selection. In addition, these findings suggest a possible mental health benefit of current operational goals to increase multicultural competence military-wide (Abbe, Gulick, & Herman, 2007; Abbe & Halpin, 2010).

Our finding that the Open-Mindedness subscale was a significant positive predictor of PTSD was surprising, although further exploration revealed its role as a suppressor variable in the presence of all other predictors in the model. Open-mindedness also served as a moderator of the combat exposure-PTSD severity relationship, with low open-mindedness buffering the effects of high combat exposure on PTSD. Thus, it may be that one's openness to a new culture can also potentially operate as a risk factor during deployment, especially at higher levels of combat exposure. For example, perhaps an initial openness to a culture leaves one more vulnerable to stress related to destruction within the culture or disappointed expectations related to their intercultural experiences. As with all of our findings, further research, possibly investigating multicultural personality traits longitudinally, is needed to better illuminate the nature of this relationship.

Several other findings were contrary to our predictions. Although Cultural Empathy did not reach statistical significance in analyses ($p = .05$), further exploration of this variable is warranted given that it is the subscale most specifically related to culture and given the statistical trend found in the current study. Prior research with other expatriate populations (Ponterotto et al., 2007; Van Oudenhoven & Van der Zee, 2002) has suggested that one's ability to empathize with the thoughts, feelings, and behaviors of those from varying cultural backgrounds may aid adjustment. Social initiative also was not a significant predictor of PTSD severity with this sample. Thus, it seems that actively approaching social situations had no added benefit in the face of other, more important multicultural personality characteristics in terms of PTSD severity.
Literature on resilience to trauma suggests it is a multifaceted process that likely involves various factors such as one's cognitive appraisals of the stressor(s), activation of particular personality variables, and capacity for affect regulation (Agaibi & Wilson, 2005). Our findings indicate several potential implications for military mental health and multicultural personality factors. Because aspects of multicultural personality may be trainable (Abbe et al., 2007), military training incorporating knowledge, skills, and abilities specifically related to emotional stability, flexibility, and open-mindedness may help bolster resilience and mitigate the effects of compound stress during deployment to a combat zone. For example, in describing the need for more cultural competency training in the Army, Abbe and Halpin (2010) discussed how existing training and education can be leveraged to incorporate cultural competency skills because of the significant overlaps between these competencies and generalized leadership concepts that are already a part of Army training and culture.

In this same spirit, perhaps such a merging of initiatives could exist between military operational goals and mental health needs. Ideally, while service members learn to be more culturally adept and effective, their skills could serve to bolster their cultural as well as overall resilience in a more holistic approach to fitness. This strategy is consistent with the Army's Comprehensive Soldier Fitness Program, which emphasizes prevention and risk management and positive psychology interventions to improve mental health (Cornum, Matthews, & Seligman, 2011).

Limitations and Directions for Further Research

The current findings should be considered in light of several limitations of this study. Because this is correlational research, causation cannot be determined. Our sample comprised a high percentage of Caucasian participants (87%) and therefore may not fully represent other races/ethnicities. In addition, officers were overrepresented in our sample (66%) and therefore results may not be representative of enlisted personnel. Future research should further examine multicultural personality with more diverse and representative military samples.

We also did not assess for military occupational specialty or differentiate between combat arms versus combat support or service and support. Although the modern battlefield is much less linear than in previous eras, assessing for service members' specific role during deployment may be important for understanding how these traits may be differentially valuable depending upon one's role. For example, specialized elements charged with training or supporting foreign populations require more cultural savvy than personnel whose role may be solely managed within their operating base.

Another important limitation of this study is that we did not assess how long it had been since service members had returned from deployment, which may have influenced distress measures and recall. Future research may benefit from examining specific units at isolated times, before and after deployment or, if possible, at different times during deployment. In this way, the relative importance of different MPQ factors over time could be assessed.

Conclusion

Although there is growing recognition of the relevance of the expatriation experience and multicultural competence within a military population (Abbe & Halpin, 2010), to date little empirical research exists within this context. Abbe and Halpin (2010) discuss the “cultural imperative” of modern military training for its operational value and other authors have illustrated the important mental health implications of cultural stress (Azari et al., 2010). The present study has begun to connect these paradigms by illuminating how aspects of intercultural effectiveness, theorized to predict success in foreign environments, are associated with mental health outcomes such as PTSD in service members who have deployed to Iraq or Afghanistan. Specifically, multicultural personality factors were associated in generally expected directions with PTSD symptomatology. Emotional stability, open-mindedness, and flexibility appear to have particularly significant implications for service member mental health. This research sheds light on concepts that may simultaneously influence service member effectiveness and resilience and inform initiatives in prevention, training, and selection.
References


