Associations Between Types of Combat Violence and the Acquired Capability for Suicide

CRAIG J. BRYAN, PSYD, ABPP, AND KELLY C. CUKROWICZ, PHD

Research suggests that combat exposure might increase risk for suicide. The interpersonal-psychological theory of suicide (IPTS) proposes that exposure to painful and provocative experiences such as combat contribute to fearlessness about death and increased pain tolerance, which serve to enhance the individual’s capability to attempt suicide. Violent and aggressive combat experiences, in particular, should demonstrate relatively stronger associations to this capability. The current study tests this proposition in a sample of deployed active duty combatants. Results indicate that all types of combat exposure independently contribute to capability for suicide. Consistent with the IPTS, when considering all types of combat simultaneously, combat characterized by violence and high levels of injury and death are associated with relatively stronger associations to this capability.

Suicide is the second leading cause of death in the U.S. military (Ritchie, Keppler, & Rothberg, 2003; U.S. Department of Defense, 2007). Military service has recently been proposed as a risk factor for suicidal behavior based on findings that male veterans are twice as likely to die by suicide when compared to male nonveterans in the general population (Kaplan, Huguet, McFarland, & Newson, 2007), in addition to the recent rise in the rate of suicide among active duty military service members (Kang & Bullman, 2008; Lorge, 2008). This latter finding is particularly alarming given that active duty military suicide rates have traditionally been lower than those of the general population (Kang & Bullman, 2008), suggesting that military service may have, until recently, functioned as a protective factor for suicide. Within the past few years, the military suicide rate has surpassed the civilian rate (Kang & Bullman, 2008), suggesting a much more complex relationship between military service and suicidal behaviors. Unfortunately, there is very little research on the mechanisms through which military service influences suicide risk.

One possible factor explaining the link between military service and suicidal behavior that has received some consideration is increased combat exposure secondary to repeated deployments. Greater exposure to combat violence and atrocities has been associated with increased suicidal ideation (Beckham, Feldman, & Kirby, 1998; Sareen et al., 2007; Yehuda, Southwick, & Giller, 1992), and length of tour of duty, which results in greater exposure to combat and war atrocities, has also been associated with
death by suicide in Vietnam veterans (Adams, Barton, Mitchell, Moore, & Einagel, 1998). These data provide some support for the possibility that combat exposure might be contributing to increased suicide rates in soldiers who have deployed more recently in support of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), especially in light of longer and more frequent deployments for service members than in the past (Tanielian & Jaycox, 2008). These data also led an Institute of Medicine (2007) committee to conclude that there is sufficient evidence supporting the relationship between deployment to a war zone and suicide in the years after deployment. Although combat exposure might contribute to increased risk for suicidal behaviors, these studies do not provide an explanatory mechanism critical for developing interventions and prevention strategies to reduce suicide rates among military personnel.

One model that has proposed an explanatory mechanism for the association between combat exposure and suicidal behaviors is the interpersonal-psychological theory of suicide (IPTS; Joiner, 2005; Van Orden et al., 2010). The IPTS, displayed graphically in Figure 1, proposes that the most dangerous form of suicidal desire (i.e., why someone would want to die by suicide) is caused by the simultaneous presence of two interpersonal constructs—thwarted belongingness and perceived burdensomeness—and that the capability to engage in suicidal behavior (i.e., who can attempt suicide) is separate from the desire to engage in suicidal behavior. This capability for suicide is theoretically acquired via exposure to painful and provocative activities (e.g., suicide attempts, child maltreatment, past suicidality or self-injury, exposure to violence or aggression; Van Orden et al., 2010), which effectively function to lower the individual’s fear of death and elevate their tolerance for pain. Because a lethal or near-lethal suicide attempt is extremely fear-inducing and often pain-inducing, habituation to the fear and pain involved is a prerequisite for serious suicidal behavior. Thus, capability develops as a function of repeated exposure to painful and provocative events, through which the individual habituates to previously aversive stimuli (Joiner, 2005; Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006; Orbach, Mikulincer, King, Cohen, & Stein, 1997; Van Orden, Witte, Gordon, Bender, & Joiner, 2008).

It is through the construct of capability that the IPTS proposes that combat exposure contributes to suicidal behaviors (see Figure 1), since combat exposure inherently involves exposure to provocative experiences in which initial aversive responses (e.g., fear) are purposefully dampened to accomplish mission demands effectively. Indeed, military training explicitly involves habituation to pain and discomfort while simultaneously increasing exposure to controlled violence (e.g., firing weapons, hand-to-hand combat). The proposition that capability is elevated among service members received initial confirmation by Bryan, Morrow, Anestis, and Joiner (2009), who found higher capability ratings among active duty United States Air Force (USAF) Airmen who had just graduated from basic training, and therefore had not yet been deployed. Bryan, Cukrowicz,
West, and Morrow (in press) later demonstrated that combat experiences were significantly associated with capability among deployed service members, but not with perceived burdensomeness or thwarted belongingness. This latter finding supported the theory’s proposition that combat contributes to habituation to death and increased pain tolerance, but does not necessarily contribute to the desire for suicide.

Without doubt, combat exposure involves exposure to aversive experiences including death and injury, but as a mechanism of acquired fearlessness about death and habituation to pain, not all combat experiences are equal. Combat events can vary on a number of dimensions such as level of violence (e.g., firefights vs. nonhostile, routine patrols), proximity (hand-to-hand combat vs. artillery fire at a distance), and personal responsibility (killing an enemy combatant vs. witnessing others engaged in combat). These factors can be influenced by variables such as occupation (e.g., medics have direct contact with horrifically injured casualties but are not necessarily engaged in direct combat actions like infantrymen) or location of deployment (e.g., relatively peaceful, well-controlled areas vs. hostile areas with high combat operations). Different types of combat experiences have demonstrated differential associations with psychopathology and suicidal behavior, with experiences marked by the initiation of violence toward others (e.g., firing upon the enemy) being more strongly associated with suicide attempts than combat experiences without active initiation of violence (Fontana, Rosenheck, & Brett, 1992). Viewed from the perspective of the IPTS, these findings could be explained by differing levels of capability (i.e., fearlessness about death and pain tolerance) associated with these different types of combat.

Although combat marked by exposure to greater levels of violence, injury, and death should theoretically be associated with higher capability for suicide, this assumption of the IPTS has not yet been tested. The aim of the current study is, therefore, to explicitly test whether certain types of combat experiences are more strongly associated with the acquired capability for suicide. Specifically, our primary hypothesis is that combat experiences involving higher levels of violence, aggression, injury, and death will demonstrate a stronger association with the capability for suicide than combat experiences involving minimal levels of violence or aggression. The finding that violent and aggressive combat events are more strongly associated with the capability for suicide than other combat events marked by less aggression would provide further empirical support for the IPTS.

**METHOD**

*Participants and Procedures*

Subjects included 348 USAF Security Forces personnel deployed in support of OIF with mission duties including security patrols, police actions both on-base and off-base, quick reaction force, gate security, and others, all of which entail considerable exposure to a range of combat experiences. Racial distribution was 63.5% White, 14.4% Black, 12.1% Hispanic, 3.4% Asian/Pacific Islander, and 5.2% Other. As expected in a deployed military environment, the overwhelming majority of the sample (89.7%) was men. Among service members, rank was predominantly junior enlisted (E1–E4: 66.4%) and noncommissioned officer (E5–E6: 28.7%), although the sample also included some senior noncommissioned officers (E7–E9: 2.3%) and warrant and commissioned officers (2.6%). Consistent with this rank distribution, the mean age for the sample was 24.44 ± 4.97 years. For approximately half of the sample (47.7%), this was the first deployment. Of those who had previously been deployed, the total number of previous deployments ranged from one (23.9%) to nine (.3%). Data were obtained as a part of baseline psychological and neurocognitive testing conducted routinely at the beginning of their deployment in the event of subsequent head injury while deployed. This study was approved by the
Department of Defense (DOD) Institutional Review Board charged with overseeing all studies originating in combat zones.

**Variables**

**Past Suicidality.** The Suicidal Behaviors Questionnaire-Revised (SBQ-R; Osman et al., 2001) is a brief (4-item) self-report measure of past suicidal behaviors. The questionnaire assesses four domains: previous suicide attempts, frequency of suicidal ideation, previous suicidal communication, and subjective likelihood of future suicide attempt. A total score of 7 in nonclinical populations can accurately differentiate suicidal from nonsuicidal individuals with 93% sensitivity and 95% specificity (Osman et al., 2001).

**Posttraumatic Stress Disorder Symptoms (PTSD).** The PTSD Checklist-Military Version (PCL-M; Weathers, Litz, Herman, Huska, & Keane, 1993) is a 17-item self-report inventory that measures the severity of each DSM–IV-defined PTSD symptom. The PCL-M is widely used as a clinical tool in the DOD and Veterans’ Administration (VA), and has been used extensively in military-related research on PTSD among OEF/OIF veterans. Of the various optimal cutoff scores that have been proposed for the PCL-M, Blanchard, Jones-Alexander, Buckley, and Forneris’s (1996) recommended cut-off score of 44, which is 94% sensitive and 86% specific to a diagnosis of PTSD, is widely used.

**Acquired Capability for Suicide.** The Acquired Capability for Suicide Scale (ACSS; Van Orden et al., 2008) is a self-report questionnaire developed to assess a respondent’s fearlessness about death (e.g., “I am not at all afraid to die”) and pain tolerance (e.g., “I can tolerate a lot more pain than most people”). Individuals respond on a 7-point Likert scale, with higher scores indicating a greater capability for lethal self-injury. The scale is correlated with the Fear of Suicide subscale of the Reasons for Living Inventory (Linehan, Goodstein, Nielson, & Chiles, 1983) in the expected direction, and a Beck Suicide Scale item that asks about one’s courage to kill oneself (Bender, Gordon, & Joiner, 2007). Construct validity of the ACSS’s five items has been supported based on their relationship with past suicidal behaviors, frequency of exposure to painful or provocative life experiences, and suicidal intent, and on their lack of correlation with mood (Bryan et al., 2009, in press; Van Orden et al., 2008). Internal consistency for the scale in the current study was α = .66, which is consistent with previous reports (Bryan et al., 2009; Van Orden et al., 2008) and acceptable for a scale measuring two related constructs (i.e., fearlessness about death and pain tolerance).

**Combat Experience.** The Combat Experiences Scale (CES; Hoge et al., 2004) is a 23-item checklist of a range of combat-related experiences to which an individual has been exposed (e.g., being attacked or ambushed, shooting or directing fire at the enemy, seeing dead or seriously injured Americans, handling or uncovering dead bodies or body parts, etc.). Respondents are asked to indicate which events they have experienced at any time during a deployment. The CES has been previously utilized in military-related research (e.g., Bryan et al., in press; Hoge et al., 2004), and has been shown to be significantly associated with the acquired capability for suicide (Bryan et al., in press).

**Analytic Approach**

An exploratory factor analysis of the CES was first conducted to empirically identify different types of combat experiences. As capability was approximately normally distributed in our sample, a series of linear regression equations was calculated with capability as the dependent variable. Gender, previous suicidality, and number of previous deployments were entered into the equation as covariates due to their empirical and/or theoretical association with capability. Each category of combat was then added to the equation independently to test the unique effect of each category on capability. As types of combat experiences are typically not mutually exclusive, but rather co-occur
frequently, a final regression model was constructed in which all categories of combat were simultaneously entered to test the relative impact of each category in the presence of all other categories.

RESULTS

Types of Combat

To identify different types of combat categories, an exploratory factor analysis was conducted using principal factor extraction due to non-normality in the distribution of combat experiences, with promax rotation to account for expected correlations among factors. The Kaiser–Meyer–Olkin coefficient was very high (.912), suggesting that factor analysis would be appropriate, and Bartlett’s test of sphericity was significant, $\chi^2(231) = 3281.276$, $p < .001$, suggesting that the strength of the relationship among the items was strong and appropriate for a factor analysis. Results of the factor analysis are displayed in Table 1. Five factors were extracted, which account for 59.82% of the total variance. Of the five factors extracted,

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>6) Seeing dead bodies or body parts.</td>
<td>.841</td>
<td>.428</td>
<td>.488</td>
<td>.408</td>
<td>-.042</td>
</tr>
<tr>
<td>11) Seeing dead or seriously injured Americans.</td>
<td>.766</td>
<td>.492</td>
<td>.664</td>
<td>.431</td>
<td>-.072</td>
</tr>
<tr>
<td>9) Witnessing an accident which resulted in serious injury or death.</td>
<td>.733</td>
<td>.461</td>
<td>.517</td>
<td>.199</td>
<td>-.086</td>
</tr>
<tr>
<td>7) Handling or uncovering dead bodies or body parts.</td>
<td>.708</td>
<td>.169</td>
<td>.469</td>
<td>.317</td>
<td>.181</td>
</tr>
<tr>
<td>3) Seeing physical devastation.</td>
<td>.691</td>
<td>.432</td>
<td>.373</td>
<td>.514</td>
<td>.092</td>
</tr>
<tr>
<td>12) Knowing someone seriously injured or killed.</td>
<td>.633</td>
<td>.303</td>
<td>.474</td>
<td>.553</td>
<td>-.081</td>
</tr>
<tr>
<td>1) Being in an accident.</td>
<td>.627</td>
<td>.371</td>
<td>.127</td>
<td>.436</td>
<td>.058</td>
</tr>
<tr>
<td>8) Smelling the stench of decomposing bodies.</td>
<td>.555</td>
<td>.171</td>
<td>.218</td>
<td>.355</td>
<td>.505</td>
</tr>
<tr>
<td>16) Disarming civilians.</td>
<td>.554</td>
<td>.732</td>
<td>.373</td>
<td>.261</td>
<td>.003</td>
</tr>
<tr>
<td>18) Witnessing hostility over property or boundary disputes.</td>
<td>.185</td>
<td>.714</td>
<td>.276</td>
<td>.185</td>
<td>.158</td>
</tr>
<tr>
<td>22) Needing to police or manage civilians in chaotic or unpredictable conditions.</td>
<td>.460</td>
<td>.705</td>
<td>.575</td>
<td>.505</td>
<td>.005</td>
</tr>
<tr>
<td>15) Having hostile reactions from civilians you were trying to help.</td>
<td>.364</td>
<td>.681</td>
<td>.334</td>
<td>.496</td>
<td>.017</td>
</tr>
<tr>
<td>17) Having contact with traumatized civilians.</td>
<td>.636</td>
<td>.663</td>
<td>.503</td>
<td>.412</td>
<td>-.188</td>
</tr>
<tr>
<td>19) Having to exercise restraints while patrolling.</td>
<td>.545</td>
<td>.636</td>
<td>.377</td>
<td>.492</td>
<td>-.150</td>
</tr>
<tr>
<td>14) Patrolling areas (or riding in areas) where there were land mines.</td>
<td>.381</td>
<td>.617</td>
<td>.455</td>
<td>.533</td>
<td>-.078</td>
</tr>
<tr>
<td>20) Shooting or directing fire at the enemy.</td>
<td>.457</td>
<td>.395</td>
<td>.859</td>
<td>.493</td>
<td>.047</td>
</tr>
<tr>
<td>10) Witnessing hostility between the former warring factions.</td>
<td>.495</td>
<td>.438</td>
<td>.824</td>
<td>.257</td>
<td>.139</td>
</tr>
<tr>
<td>2) Being attacked or ambushed.</td>
<td>.543</td>
<td>.502</td>
<td>.670</td>
<td>.451</td>
<td>-.143</td>
</tr>
<tr>
<td>4) Being shot at.</td>
<td>.560</td>
<td>.453</td>
<td>.543</td>
<td>.647</td>
<td>-.168</td>
</tr>
<tr>
<td>21) Seeing children or mothers who were victims of war.</td>
<td>.393</td>
<td>.397</td>
<td>.315</td>
<td>.755</td>
<td>-.062</td>
</tr>
<tr>
<td>13) Having to aid in the removal of unexploded ordinances (UXOs).</td>
<td>.356</td>
<td>.302</td>
<td>.326</td>
<td>.738</td>
<td>.097</td>
</tr>
<tr>
<td>5) Being taken hostage.</td>
<td>.209</td>
<td>.292</td>
<td>.286</td>
<td>.156</td>
<td>.784</td>
</tr>
</tbody>
</table>

Note. Bold, underlined values indicate which factor each item was assigned to.
only the first three were ultimately retained, however. Factor 1 accounted for 38.18% of variance, and was named “Injury and Death” because items related primarily to witnessing injuries and being exposed to dead bodies or body parts. Factor 2 accounted for 6.83% of variance, and was named “Mission Duties” because items related primarily to exposure to stressful and potentially hostile situations while performing routine job-related duties. Factor 3 accounted for 5.34% of variance, and was named “Aggression” because items related primarily to aggressive and/or violent acts that occur as a part of combat operations. Factor 4 was not retained as it accounted for a small amount of variance (4.81%) and items did not seem to appear to describe a conceptually unique underlying construct. Factor 5 was also not retained because it accounted for a small amount of variance (4.66%) and was comprised of only a single item (“Being taken hostage”) that was not endorsed by any of the respondents. One item (“Being shot at”) loaded on multiple factors (see Table 2), with the largest loading on the rejected Factor 4 and the next heaviest loading on Factor 1 (Injury and Death). However, we decided to assign this item to Factor 3 (Aggression) because from a conceptual perspective it best aligned with the Aggression factor, and the magnitude of its loading was above our minimum value of .500.

Descriptive Statistics

Means, standard deviations, and intercorrelations for all variables are presented in Table 2. Acquired capability was significantly correlated with male gender, past suicidality, PTSD symptoms, and all three types of combat. Women reported more past suicidality, but otherwise gender did not correlate with any other variables. Not surprisingly, service members with more deployments reported higher levels of combat experiences of all types. PTSD symptoms were also positively correlated with combat experiences of all types, as well as acquired capability.

How do Different Types of Combat Experience Contribute to Acquired Capability for Suicide?

The general pattern of findings can be seen in Table 3. As our primary aim was to compare the relative influence of each predictor on the dependent variable (capability), and each predictor is scaled differently, we interpreted and report findings using standardized coefficients to provide for easier
comparisons across variables; unstandardized coefficients are displayed in the table as well.

Model 0 displays the coefficients for the regression equation containing the covariates gender, previous suicidality, past number of deployments, and PTSD symptoms. This model was statistically significant and accounted for 5.7% of the variance in capability, with male gender, past suicidality, and PTSD symptoms predicting higher levels of capability. Models 1 through 3 display the coefficients for the regression equations containing the covariates from Model 0, plus the addition of each individual category of combat. As can be seen in Table 2, each category independently predicted capability above and beyond the covariates and significantly improved the amount of variance explained in capability, although the incremental variance explained remained relatively small: an additional 4.3% for Injury and Death events, 2.6% for Mission Duties, and 4.9% for Aggression. Based on standardized betas, the Aggression ($\beta = .260$) and Injury and Death ($\beta = .235$) factors demonstrated relatively stronger associations with capability than the Mission Duties ($\beta = .182$) factor.

In the final equation (Model 4), we entered all three categories of combat experiences simultaneously to account for the fact that the three combat experience types are not mutually exclusive. The resulting model was statistically significant and accounted for a total of 11.5% of variance in capability ($AR^2 = .058$ as compared to Model 0). In this final model, only Aggression events significantly predicted capability ($\beta = .173$, $t = 2.149$, $p = .032$), suggesting that when considering all types of combat experiences simultaneously, combat events marked by aggression or violence are most directly associated with increased capability. Specifically, for each additional Aggression item endorsed, capability increased approximately .209 points.

**DISCUSSION**

As noted earlier, recent data suggest that combat exposure may be contributing to elevated risk for suicidal behaviors (Kang & Bullman, 2008; Kaplan et al., 2007), although very few studies have investigated potential explanations for this trend. The IPTS posits that combat experiences marked by exposure to pain, injury, death, and aggression contribute to suicidal behaviors through the dual processes of habituation to the fear of death and increased tolerance for pain. These two processes comprise the capability for suicide. Although all forms of
combat could potentially contribute to the capability for suicide through habituation to death and increased pain tolerance, those events with the highest levels of exposure to death, injury, and aggression should, relatively speaking, demonstrate the strongest association. In the current study, three separate types of combat experience were identified via factor analysis and subsequently tested as predictors of capability for suicide: events with high exposure to injury and/or death, events with high exposure to aggression or violence, and events with low levels of injury or aggression.

The results suggest that all forms of combat exposure predict higher levels of capability, which is consistent with previous research on the IPTS demonstrating that exposure to painful and provocative experiences in general contribute to heightened capability for suicide (Van Orden et al., 2008). This finding is important because it points to the role that the full range of combat experiences plays in the habituation to death and development of pain tolerance, even among service members not directly involved in violent or aggressive combat roles (i.e., noncombatants such as medical personnel), and suggests that exposure to any form of death or suffering in combat could contribute to the necessary components that comprise the capability for suicide. It could in addition provide a potential explanation for the finding that military veterans are twice as likely to die by suicide as civilians (Kaplan et al., 2007).

The second notable finding that is consistent with the expectations of the IPTS is that combat events involving aggression and high levels of exposure to death and injury independently demonstrate stronger associations with the capability for suicide relative to combat events that do not entail explicit exposure to death or aggression. Critically, when all combat types are considered simultaneously—an important step given that combat types are not always mutually exclusive—combat events characterized primarily by aggression are the only type that demonstrate a significant association with capability. Our results also align with findings that forms of childhood abuse involving more intense levels of physical pain such as rape and physical abuse are better predictors of subsequent suicidal behavior than less physically painful forms of childhood abuse such as molestation and verbal abuse (Joiner et al., 2007).

Based on the IPTS’s assumptions that fearlessness about death is a necessary condition for suicidal intent to emerge, and higher levels of pain tolerance are required for more highly lethal suicidal behaviors, Van Orden et al. (2010) have proposed that the capability for suicide contributes directly to suicidal intent and lethality of suicidal behaviors. This is consistent with empirical findings demonstrating that an increased sense of courage or perceived competence about suicide is more closely related to suicidal behaviors than the desire for death or suicide (Beck, Brown, & Steer, 1997; Joiner, Rudd, & Rajab, 1997), generally due to their close association with other factors such as access to lethal means, mental rehearsal, preparation for death, and behavioral practice of the suicide method, all of which habituate the individual to the fearsome act of lethal or near-lethal suicidal behavior. When viewed through the lens of the IPTS, the finding that violent or aggressive combat events are more strongly associated with later suicide attempts than less violent combat events (Fontana et al., 1992) has provided a possible explanatory mechanism: habituation to death and increased pain tolerance. Results of the current study are consistent with the possibility that Fontana et al.’s findings are due to an increased capability for suicide resulting from exposure to more violent combat experiences.

Limitations

Our data cannot, however, fully support the IPTS because we did not measure subsequent suicidal behaviors. Although our data support the proposed conceptual link between different types of combat (in terms of level of exposure to violence and injury or death) and the capability for suicide, we are...
unable to explicitly link capability to suicidal behaviors in this study. Another limitation of this study is the absence of frequency data regarding different combat experiences. According to the IPTS, repeated exposure to provocative events contribute to heightened capability for suicide over time; the current study did not, however, measure how often service members experienced each type of combat event, which would be an important variable for further validation of the IPTS. To more conclusively determine the link between combat exposure and suicidal behaviors, additional studies are therefore needed in which frequency of combat exposure, suicidal behaviors, and all three components of the IPTS are measured. Despite these limitations, the current study provides a critical first step in empirically confirming the IPTS among combat veterans, and provides preliminary evidence that might improve our understanding of the mechanisms underlying suicide risk among service members.

Another limitation is the large proportion of male subjects in our sample, which limits conclusions about female service members. However, given that the military population and death by suicide rate is skewed heavily toward men, our sample’s gender distribution is acceptable and could nonetheless provide critical information for understanding military suicide. Results are also limited by a lack of psychological diagnostic information such as major depressive disorder or PTSD, which are important risk factors for suicide among the general population and military personnel, and may provide additional information about the role of combat exposure in relation to these variables. Psychological diagnosis should not significantly impact results, however, since the IPTS is not diagnosis-specific, but rather serves to explain suicidal behaviors across all psychological diagnoses and conditions by considering the common mechanisms that underlie suicidality. Furthermore, in a healthy, non-clinical military sample, the prevalence of current psychological disorders is expected to be relatively low. Regardless of these caveats, additional research should be conducted to explicitly test whether or not the various features of the IPTS manifest differently across psychological diagnoses and presentations within the military, as this could be important from a treatment perspective.

One final limitation is an absence of data about other previous life experiences that could contribute to capability for suicide, such as abuse history or past injuries. Prior research has shown, for example, that even military personnel without combat experience report less fear of death and have a greater ability to tolerate pain than civilians (Bryan et al., 2009), although it is as yet undetermined if the elevated capability scores observed among military samples is due to a tendency for individuals with higher capability to join the military, or due to the effects of military training and experience. This is underscored by the fact that the addition of combat variables explained only a small amount of the total variance in capability in our current study, suggesting that fearlessness about death and pain tolerance among service members is by and large accounted for by other factors. Additional research is therefore needed to better identify the relative contributory effects of these various sources of capability, including longitudinal studies that track possible changes in capability across military training and deployment. In combination with our data, this latter point highlights an important consideration for suicide prevention: the very qualities that characterize the optimal combatant (i.e., fearlessness about death, high tolerance for pain, competency in using firearms), and the very experiences that the combatants are explicitly trained to endure (i.e., violence and exposure to death), are paradoxically the same qualities that increase the capability for lethal self-injury. Given that the core military mission of training service members to face death without fear, to enact controlled violence and aggression as an occupational skill set, and to endure pain and suffering in the face adversity will not change, results of the current study suggest that suicide prevention efforts within the military would likely benefit from
targeting the desire for suicide by strengthening protective factors associated with military affiliation such as social connectedness and a sense of purpose.

On the whole, the current study demonstrates that although combat is associated with factors that increase a service member’s capability for suicide, some types of combat may carry more weight than others. In particular, it appears important to consider the extent of exposure to violence, injury, and death as it relates to fearlessness about death and pain tolerance. However, combat exposure is not the whole story when it comes to military suicide, pointing to the urgent need for further research.

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