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UNIVERSITY OF CALIFORNIA,
IRVINE

Perceptions and Predictors of U.S. Combat Veterans' Responses
to Suicide and Combat Deaths

DISSERTATION

submitted in partial satisfaction of the requirements
for the DEGREE OF

DOCTOR OF PHILOSOPHY

in Public Health

by

Pauline Lubens

Dissertation Committee:
Professor Roxane Cohen Silver, Chair
Professor Oladele Ogunseitan
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2018

DEDICATION

To

my mother, brothers, nephews, nieces, grandnephews, grandniece, in-laws, friends,

mentors, teachers, colleagues, and all those who have supported me on

this journey.

And to my late father, Dr. Herman M. Lubens, for his unconditional love and

for never telling me that I could not achieve a goal. His refrain:

“He was once someone’s baby,” when he encountered someone

who was homeless or otherwise down on their luck displayed

an empathy that I strive to achieve every day.

Finally, this dissertation is dedicated to the U.S. combat veterans who shared their

stories with me for this study and participated in my research.

“... A dark cloud of grief fell upon Achilles as he listened. He filled both hands with dust from off the ground, and poured it over his head, disfiguring his comely face...He flung himself down...and tore his hair with his hands. ...Then said Achilles in his great grief, ‘I would die here and now, in that I could not save my comrade...in his hour of need my hand was not there to help him...’”

- From the Iliad, by Homer -

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ACKNOWLEDGMENTS

I am deeply grateful for the support of my committee chair, mentor, and friend Dr. Roxane Cohen Silver, whose standards for excellence and diligence have motivated me for six years. Her guidance during my doctoral program has been invaluable. Her passion for research and dedication to her students and colleagues have served as a guide for my future work. Moreover, her genuine concern for her students' intellectual as well as personal welfare is inspiring. Her guidance and unceasing support made this dissertation possible.

I would also like to thank Dr. Oladele Ogunseitan, whose support from the day we first met when I was on break from my Master of Public Health program at the Johns Hopkins Bloomberg of Public Health has been humbling and flattering. I am confident that I would not be here today if not for him. He wholly embraced my research and teaching focus on war and public health, and he has been a tireless advocate on my behalf.

Of course, I also want to thank Professor David Timberlake, my other committee member, for his enthusiasm, guidance and friendship. My work with Dr. Timberlake as a Teaching Assistant for his Introduction to Epidemiology course was invaluable in my pedagogical development and in furthering my own Epidemiology education.

I want to thank the funders of dissertation research my fieldwork and thus enabling me to travel throughout California and to 10 other U.S. states to interview the combat veterans who participated in my study:

- The Program in Public Health
- The Center for Global Peace and Conflict Studies at UCI

I appreciate the assistance I received from Joanna Fagan, who assisted with transcription of the interview recordings.

In addition, a special thank you to Dr. Frederick "Skip" Burkle for his support and advocacy from the moment I first emailed him about my plan to transition from journalism to public health. Skip has mentored thousands of people and I am honored to be among them.

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2001. *Administration and Policy in Mental Health and Mental Health Services Research*,
1-8. doi:10.1007/s10488-014-0619-4

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news-content-when-linking-tv-watching-and-all-cause-mortality](http://jaha.ahajournals.org/content/3/3/e000864/tab-e-letters#dont-overlook-television-news-content-when-linking-tv-watching-and-all-cause-mortality)

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ABSTRACT OF THE DISSERTATION

How Combat Veterans Grieve:
Perceptions and Predictors of U.S. Combat Veterans' Responses
to Suicide and Combat Deaths

By

Pauline Lubens

Doctor of Philosophy in Public Health

University of California, Irvine, 2018

Professor Roxane Cohen Silver, Chair

This mixed-methods study examined how U.S. combat veterans experience the deaths of comrades who have died in combat or by suicide and explored factors that predict their level of grief over those deaths. Recruitment of participants for semi-structured interviews was done through purposive snowball sampling, which enables researchers to create a participant network by receiving referrals from existing participants. Recruitment of participants for completion of a web-based survey was also done through snowball sampling, as well as veterans' social media sites and non-profit organizations serving veterans' health needs. In addition, veteran services offices on college and university campuses in several states disseminated the survey link, as did key informants, individuals who are not necessarily part of the study population but who are familiar with the population professionally or personally. All participants who were interviewed were also asked to complete the survey.

Iraq and Afghanistan veterans who lost comrades to *both* combat and suicide (N=28) were interviewed. Veterans who lost a comrade in combat *or* to suicide completed the survey (N=186), which included measures of grief, combat exposure, unit cohesion, anger, posttraumatic stress symptoms (PTSS), and social support.

Text analyses of the interview transcripts revealed seven themes: 1) Suicide death as unexpected can make acceptance of death harder; 2) Combat death as expected can ease acceptance of death; 3) Combat death as heroic can make acceptance of death easier; 4) Brotherhood forged in combat intensifies the emotional response, even if the deceased was not a friend; 5) Guilt over inability to prevent a comrade's death makes acceptance harder; 6) Attribution of blame for a death creates anger; and 7) Detachment from the civilian world may make it more difficult to cope with comrades' deaths.

Multiple regression analyses of survey data indicated: 1) Suicide deaths predict a higher level of non-acceptance; 2) The mode of death moderates the association between unit cohesion and grief; 3) Combat exposure, anger, closeness to the deceased, and gender predict the level of grief; 4) Combat exposure is an equally strong predictor of grief and PTSS.

This study's focus on veteran's grief further delineates war's toll. The mixed-methods design allowed the study to tell a complex story about a complicated and previously unexplored consequence of war. These findings have important public health implications because these outcomes impact not only veterans, but their families and communities as well.

CHAPTER 1

Introduction

Background

Since the wars in Afghanistan and Iraq began in 2001 and 2003, respectively, more than 5,400 U.S. military personnel have died in combat (Department of Defense, 2018). As the number of troops killed in action has declined, the military suicide rate has at times surpassed the rate of casualties (Williams, 2012). Embarking on a military career and training for war bring an inherent risk of injury, mortality, and the painful personal loss of comrades in arms. However, increasingly U.S. military personnel have faced the added burden of losing comrades with whom they have served to self-inflicted wounds. Until 2008, the military suicide rate was below that of the general population. However, not only does the military suicide rate now exceed the combat death rate, but the military suicide rate now also exceeds the civilian suicide rate (Nock et al., 2013). Most of these suicides have occurred off the battlefield, after troops have returned home from deployment (Bush et al., 2013). A 2017 survey by the Iraq and Afghanistan Veterans of America (IAVA) found that 58% of post-9/11 veterans know a veteran who died by suicide and 65% know a veteran who has attempted suicide (Iraq and Afghanistan Veterans of America, 2017).

Although there is ample research about the psychological toll of combat service on military personnel and veterans, much of it focuses on posttraumatic stress disorder (PTSD), depression, and substance use or abuse associated with combat trauma (Lubens & Bruckner, 2018). The limited grief research conducted in the military community has focused primarily on bereaved military families. Kaplow and colleagues (2013) explored the experiences of military children by using a framework that included the role of combat deployments, reintegration of the service member upon return from deployment, and the aftermath of combat death. The authors stopped short of applying the same framework to the losses experienced by service members or

veterans themselves. Faber and colleagues (2014) examined grief through a case study in the military community that focused on a couple who had lost a son to combat in Iraq. Few studies have focused specifically on grief responses in military personnel, explored how troops feel if they have lost members of their units in battle, or considered whether grief is a distinct outcome from PTSD. A thorough literature review found a few studies that explored grief in Vietnam-era combat veterans (e.g., Pivar & Field, 2004; Shatan, 1974). Moreover, a study of Vietnam veterans found that 68.1% reported losing a close friend in combat, and that their prolonged grief was associated with adverse physical health, poor family relationships, and adverse mental health (Currier & Holland, 2012). There is a single study that has focused on physical health outcomes of grief in veterans who served in Afghanistan and Iraq, Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF), respectively (Toblin et al., 2012). Thus, although we have some insight into how military families grieve and we know a little about veterans' grief responses to battle deaths during the Vietnam War, we know virtually nothing about OEF and OIF veterans' grief responses to losing comrades. We also do not know if there is a distinction between grief over suicide and grief over a loss in combat. These research gaps have important consequences for veterans' psychological and physical health in light of past research suggesting that grief is associated with suicidal ideation and somatic outcomes including cancer, heart disease, high blood pressure, poor diet, and ulcers (Ott, 2003; Stroebe, Schut, & Stroebe, 2007).

Grief Research in The Civilian Community

Although there is limited grief research focusing on service personnel or veterans, research in the civilian community suggests that grief responses depend on the circumstances and mode of death (Wortman & Silver, 1989). Some literature distinguishes between expected and unexpected death, attributes the difference in grief response to how unanticipated a death

might be, and typically classifies both violent deaths and suicide as unexpected (e.g., Bailey, Kral, & Dunham, 1999).

Differentiating Among Circumstances of Death: The Uniqueness of Suicide

Jordan (2001) posited there are three primary differences that distinguish suicide grief responses from grief over other causes of death: the “thematic content” of the grief, the social dynamics, and how grief may upset a family system. Moreover, some researchers have found qualitative differences between suicide and other modes of death, including a greater search for the death’s meaning, greater guilt, perception of responsibility, anger, and a sense of abandonment. Bailey, Kral, and Dunham (1999) found in a study of 350 bereaved university students that those who were bereaved over a suicide loss had a sense of rejection, a higher feeling of shame, and a higher level of grief compared to those who were grieving a death due to other causes. On the other hand, Murphy and colleagues (2003) found that parents whose children died by homicide had worse psychological outcomes than those whose children died by suicide. Other researchers have found that parents of children who died by suicide blamed themselves more for their children’s deaths than did those parents whose children died from disease or by accident (Miles & Demi, 1992).

Additionally, response to suicide can be complicated by the confluence of negative social attitudes, poor social support, and self-blame (Cvinar, 2005). This is in large part due to the stigma associated with suicide. Many people consider suicide to be a shameful, socially unacceptable act (Ginsburg, 1971) and friends and loved ones of people who take their own lives are themselves stigmatized (Doka, 2008; Jordan, 2001). Jordan (2001) pointed out that suicide not only violates cultural norms, but its survivors suffer guilt more than survivors of other forms of death. This societal bias against suicide and some religious beliefs that it is a sinful act

conspire to place suicide in a distinct category from other causes of mortality, leaving survivors in an unsettled state.

Social Support

Not only have studies explored grief responses to different circumstances or modes of death, but bereavement research has also explored if social support can influence grief severity. Some studies have found that the strength, density, and homogeneity of a social network may be predictors of grief severity (Hibberd, Elwood, & Galovski, 2010; Walker, MacBride, & Vachon, 1977). A study of parents who lost children to cancer found that those parents who reached out to others in their social network to talk about their bereavement were able to minimize their grief (Kreicbergs, Lannen, Onelov, & Wolfe, 2007). However, Stroebe and colleagues (2005) report that research findings about the role of social support in minimizing grief have been inconsistent.

Conceptualizing Grief Responses and Risks in the Military

Grief research in the civilian community raises important questions about grief in service members who have lost comrades to combat or suicide. As noted above, although studies in the civilian community typically classify both suicide and violent deaths as unexpected, (e.g., Bailey, Kral, & Dunham, 1999) combat deaths, which are violent deaths, may be expected, because death is intrinsic to war. On the other hand, military suicide deaths — particularly those that occur after troops have returned home — are likely to be unexpected just as they are in the civilian community. Moreover, the societal stigmatization of suicide in the civilian community may carry over to the military. In the military context, we might wonder if suicide is also stigmatized as a sign of weakness, or if a person who dies by suicide is regarded as having been cowardly compared to the person who dies in combat, who may be regarded as a hero. Consequently, veterans might feel more grief over a combat death than a suicide death.

The uniqueness of military service and its incumbent duties may also distinguish the risks associated with grief apart from those experienced in the civilian community. Exposure to danger is not inherent in non-law-enforcement civilian life, as it is for troops whose mission is to face opposing forces in combat. Although we know that combat exposure and combat trauma have been associated with deleterious psychological outcomes (Lubens & Bruckner, 2018), given that combat exposure and loss of comrades in battle are likely to be inextricably linked, combat exposure may also be a risk for grief. Moreover, since we know that the suicide rate is higher in the military than in the civilian community (Nock et al., 2013), military combat duty may not only be a greater risk for suicide, but for suicide grief in comrades of the deceased.

In addition to combat exposure, other factors that have been found to be associated with stress responses to trauma, such as prior adverse life events, may be relevant to a study of grief in combat veterans. Prior adverse life events are risks for poor psychological responses to subsequent traumatic events (Breslau et al., 1998) and research suggests that the risk of PTSD is greater in trauma-exposed persons who have previously had a PTSD response to trauma (Breslau, Davis, Peterson, & Schultz, 2000). A study of Vietnam Veterans found that those who were diagnosed with PTSD had suffered higher rates of abuse during childhood compared to Vietnam Veterans who were not diagnosed with PTSD (Bremner, Southwick, Johnson, Yehuda, & Charney, 1993). Studies of the biological pathways for PTSD have found that alterations in the sympathetic nervous system — associated with past PTSD response — may be a risk factor for increased PTSD as well (Delahanty & Nugent, 2006). Thus, we might inquire if prior traumatic life events have a similar influence on grief responses among veterans.

In addition, the findings in the civilian community about the protective role of social support in bereavement suggests that unit cohesion might influence the level of grief in service

members or veterans. Unit cohesion in the military is comparable to civilian social cohesion and it is reasonable to expect it may play a similar social support role. Military unit cohesion may be characterized as a primary attachment similar to family ties or close social networks. Siebold (2007) described a “primary” level of cohesion among members of a combat unit as one that includes high levels of trust and teamwork. Moreover, this cohesion and familial-like attachment may predict the same sort of guilt in the military over suicide that has been seen in survivors of suicide in the civilian community described in the previous section. Furthermore, although guilt over a homicide death may not necessarily be common in the civilian community, we might wonder if this familial-like bond among service members might also create guilt over failure to prevent the death of comrade in battle. The Greek poet Homer, in his epic depiction of the final phase of the Trojan War, *The Illiad*, described the protagonist Achilles’ response to the death of his best friend, Patroclus, in battle: “...I would die here and now, in that I could not save my comrade. He has fallen far from home, and in his hour of need my hand was not there to help him ...” (Homer, 800 B.C.E). This ancient classic depiction of a soldier’s grief may still ring true for combat veterans today.

Relevant Theories of Grief and Bereavement

Several grief and bereavement theories may be relevant to grief in service members or veterans who have lost comrades. Because of the paucity of research focusing on grief in service members and veterans, it is difficult to know which of these theories are applicable to this population; nonetheless, they can serve to contextualize questions about military grief.

Normal, Pathological, and Unresolved Grief

Some scholars have distinguished between a transitory normal grief response to death and a grief response requiring intervention (Granek, 2010). In addition, Archer (1999) wrote that

grief was a natural and universal response to loss that can be examined through a cross-cultural lens. He posited that grief is not a malady that requires counselling, but is more a matter of biology and psychology. Freud (1924) also distinguished between a clinical — “melancholia”— response to loss and a benign mourning response, which he defined as a more common reaction to the death of a loved one or even to the loss of concepts such as liberty or nation. Similarly, Zisook and Depaul (1985) have distinguished a pathological form of grief from a simpler, natural grief response to loss of a loved one, and suggested that the former has clinical implications while the latter does not. Finally, Freud also theorized that unresolved grief — avoiding addressing grief or conflicted feelings about the person who has died — can lead to a pathological grief response (Archer, 2008). In the context of the theory of unresolved grief, the aforementioned research that delineated the health effects of unresolved grief in Vietnam Veterans (Pivar & Field, 2004) should lead to concern that their unresolved grief may result in pathological grief with clinical manifestations.

Disenfranchised Grief

Doka (2008) characterized “disenfranchised grief” as a grief response that is less likely to be publically acknowledged or expected and “results when a person experiences a significant loss and the resultant grief is not openly acknowledged, socially validated or publicly mourned” (p. 224). Although deaths in combat are ceremoniously and publicly mourned, the resultant grief in service members may be less likely to be acknowledged than grief in military families. We might consider how this lack of acknowledgement impacts grief in veterans, as well as how connected they may feel to the civilian communities to which they return from war.

Attachment Theory and Grief

Bowlby (1977) summarized attachment theory as:

“... a way of conceptualizing the propensity of human beings to make strong affectional bonds to particular others and of explaining the many forms of emotional distress and personality disturbance, including anxiety, anger, depression and emotional detachment, to which unwilling separation and loss give rise” (p. 201).

Attachment theory was originally developed to address a child’s ties to its mother and the consequences of those ties being broken due to separation or loss. However, Bowlby eventually expanded the concept to apply to other important attachments, such as family and close friends or allies (Archer, 2008). Grief can be characterized as a response to permanent separation from the person to whom the attachment existed. (Archer, 2008). Other scholars and social psychologists have also applied attachment theory to adult and adolescent relationships. Hazan and Shaver (1987) used self-report assessments to categorize adult attachments to correspond to childhood forms of attachment. Bartholomew and Horowitz (1991), based on their study of adolescents, created four attachment prototypes: “secure,” “dismissing,” “preoccupied,” and “fearful.” More recently Mikulincer and Shaver (2008) have applied attachment theory to adults and have created a framework for “attachment-system activation and dynamics in adulthood.” (p. 91). They use this framework to explain their body of research identifying the role of attachment in providing a sense of security based on trust and reassurance in the face of danger or threat, and in increasing self-efficacy. Their framework suggests that attachment-related security may be protective against grief severity. The application of attachment theory to grief suggests that how individuals previously related to the deceased may predict their grief response. However, the relationship is a complex one and scholars theorize that avoidant behavior and preoccupation may also influence a response to loss (Archer, 2008).

Bowlby (1982) also pointed out that grief is not necessarily pathological and that anger (at third parties or the deceased), blame, and guilt are common in people whose grief response is

a healthy one. Thus, we might also consider whether in the context of attachment, blame and guilt also play a role in a veteran's response to losing comrades in battle or by suicide.

Multidimensional Grief Theory

Kaplow and colleagues (2013) described Multidimensional Grief Theory as a framework for understanding grief responses in adolescents. Their framework included three realms: 1) "Separation Distress;" 2) "Existential/Identity-Related Distress;" and 3) "Distress over the Circumstances of the Death." The theory posits that grief responses in children may include both maladaptive behavior and positive responses within the framework's three realms. This is the framework the authors utilized in their aforementioned study that explored the effects of parental combat deployment on military children. We can also explore the application of those same realms to veterans, in light of their bonds with member of their units and their dependence on one another in combat.

Grief: The Unexplored Consequence of War

In light of the paucity of research, grief in veterans may well have the same status that PTSD did in the aftermath of the Vietnam War — largely overlooked. Papa and colleagues (2008) pointed out, "Unfortunately, the unique lasting impact of combat losses are overlooked or subsumed under the posttraumatic stress disorder (PTSD) construct" (p. 687). Thus, just as PTSD was unexplored for too long in the aftermath of the Vietnam War, grief remains largely unexplored as a distinct outcome in combat veterans today. Although Persistent Complex Bereavement Disorder has been included in the latest Statistical Manual of Mental Disorders (DSM-5) appendix, there continues to be a debate as to whether grief should be considered as a distinct outcome (Kaplow et al., 2013). Regardless of the result of that debate, as pointed out

previously, we do know that grief is associated with a suicidal ideation as well as a number of somatic outcomes, and thus an examination of the risks for grief is warranted.

If we are going to truly serve the veteran population's needs, the more we can delineate the outcomes resultant from their combat deployments, the more we can target effective interventions. Garb and colleagues (1987) pointed out that there has been a resistance to addressing grief in a military context because it conflicts with the traditional military concept of masculinity. They added that the failure to address bereavement over combat loss may contribute to psychological illnesses such as PTSD. They attributed the lack of inquiry into military grief to the notion that "... loss is so universal a life experience, it may be overlooked as an etiologic agent and major psychopathology frequently tends to be credited to other etiologies ..." (p. 422). That was the aim of this dissertation research: To examine grief as an unexplored consequence of war.

Study Design

The present study was a mixed-methods study of OEF/OIF combat veterans who had lost comrades to combat and/or suicide. Using grief research conducted in the civilian community as a guide, the goal was to better understand how combat veterans experience the deaths of their military comrades, and what factors predict the nature and level of their grief.

Through semi-structured interviews, the study's aim was to understand how veterans have responded to the two modes of death by eliciting narratives from veterans about their experiences with suicide and combat death. Through those narratives, the goal was to identify the salient themes that suggest what factors influence a veteran's response to the death of comrades in combat or by suicide.

Through structured questionnaires, the study's aim was to ascertain if there are differences in the level of grief depending on the mode of death (suicide or combat) and to ascertain if other factors (e.g., combat exposure, unit cohesion, pre-deployment life events, anger, or degree of closeness to the deceased) are associated with the level of grief experienced by veterans in response to loss of their comrades.

The Public Health Issue

As with many issues of health and well-being, grief can be classified as a public health challenge. Covill (1968) pointed out that when using epidemiologic methods to explore the effects of grief, we may find that grief behaves like a communicable disease, spreading from a bereaved individual to their relationships and community. This may be particularly salient in the military, because a service member who is killed in combat or dies by suicide is likely to be part of an extensive network of service members and veterans who may be left bereaved. Moreover, because research has found that unresolved grief has effects on physical health (Stroebe, Schut, & Stroebe, 2007), as well as suicidal ideation (Prigerson et al., 1999; Stroebe, Stroebe, & Abakoumkin, 2005), there is potential for extensive longer-term consequences of grief in veterans if left unaddressed.

Understanding the toll of war on U.S. combat veterans has important public health implications. We can place war's adverse effects within the social ecological framework's multiple tiers: the individual, relationships, community, and societal (Bronfenbrenner, 1994). Characterizing an individual's social ecology as an ecosystem, Catalano (1979) identified a perturbation — an outside force — that disrupts the equilibrium of the complex interconnected components of that ecosystem. We can think of war as a perturbation. The outcomes associated with war's perturbing influence — including grief — can cascade through the social ecological

framework's tiers, reaching veterans' families and communities (Lubens & Bruckner, 2018).

Thus, the more we can delineate the distinct mental health effects of suicide and combat loss among the current generation of veterans, the better we can minimize the public health impact of the most recent wars.

References

- Archer, J. (1999). *The nature of grief: The evolution and psychology of reactions to loss*. New York, NY: Routledge.
- Archer, J. (2008). Theories of grief: Past, present, and future perspectives. In M. S. Stroebe, R. O. Hansson, H. Schut, & W. Stroebe (Eds.), *Handbook of bereavement research and practice: Advances in theory and intervention* (pp. 45–65). Washington, DC: American Psychological Association.
- Bailey, S. E., Kral, M. J., & Dunham, K. (1999). Survivors of suicide do grieve differently: Empirical support for a common-sense proposition. *Suicide and Life-Threatening Behavior*, 29(3), 256–271. <https://doi.org/10.1111/j.1943-278X.1999.tb00301.x>
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61(2), 226–244. <http://dx.doi.org/10.1037/0022-3514.61.2.226>
- Bowlby, J. (1977). The making and breaking of affectional bonds: I. Aetiology and psychopathology in the light of attachment theory. *British Journal of Psychiatry*, 130(3), 201–210. <https://doi.org/10.1192/bjp.130.3.201>
- Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry*, 52(4), 664–678. <https://doi.org/10.1111/j.1939-0025.1982.tb01456.x>
- Bronfenbrenner, U. (1997). Ecological models of human development. In M. Gauvain & M. Cole (Eds.), *Readings on the Development of Children* (2nd ed, pp. 37–43). Basingstoke: W.H. Freeman.

- Bush, N. E., Reger, M. A., Luxton, D. D., Skopp, N. A., Kinn, J., Smolenski, D., & Gahm, G. A. (2013). Suicides and suicide attempts in the US military, 2008–2010. *Suicide and Life-Threatening Behavior, 3*(43), 262–273. <https://doi.org/10.1111/sltb.12012>
- Catalano, R. (1979). *Health, behavior, and the community: An ecological perspective* (Vol. 76). New York, NY: Pergamon Press.
- Covill, F. J. (1968). Bereavement — A public health challenge. *Canadian Journal of Public Health / Revue Canadienne de Sante'e Publique, 59*(4), 169–170. Retrieved from <http://www.jstor.org/stable/41984189>
- Currier, J. M., & Holland, J. M. (2012). Examining the role of combat loss among Vietnam War veterans. *Journal of Traumatic Stress, 25*(1), 102–105. <https://doi.org/10.1002/jts.21655>
- Cvinar, J. G. (2005). Do suicide survivors suffer social stigma: A review of the literature. *Perspectives in Psychiatric Care, 41*(1), 14–21. <http://dx.doi.org/10.1111/j.0031-5990.2005.00004.x>
- Department of Defense. (2018). Defense casualty analysis system. Retrieved April 16, 2018, from https://dcas.dmdc.osd.mil/dcas/pages/report_oef_type.xhtml
- Doka, K. (2008). Disenfranchised grief in historical and cultural perspective. In M. S. Stroebe, R. O. Hansson, H. Schut, & W. Stroebe (Eds.), *Handbook of bereavement research and practice: Advances in theory and intervention* (1st ed., pp. 223–240). Washington, DC: American Psychological Association.
- Faber, A. J., Minner, J., & Wadsworth, S. M. (2014). Killed in combat: The impact of the military context on the grief process. *Military Behavioral Health, 2*(1), 14–17. <https://doi.org/10.1080/21635781.2013.831724>

- Freud, S. (1924). Mourning and melancholia. *The Psychoanalytic Review (1913-1957)*, *11*, 77-82. Retrieved from <https://search.proquest.com/docview/1309888310?accountid=14509>
- Garb, R., Bleich, A., & Lerer, B. (1987). Bereavement in combat. *Psychiatric Clinics of North America*, *10*(3), 421–436.
- Ginsburg, G. P. (1971). Public conceptions and attitudes about suicide. *Journal of Health and Social Behavior*, *12*(3), 200–207. <https://doi.org/10.2307/2948555>
- Granek, L. (2010). Grief as pathology: The evolution of grief theory in psychology from Freud to the present. *History of Psychology*, *13*(1), 46–73. <http://dx.doi.org/10.1037/a0016991>
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, *52*(3), 511–524. <http://dx.doi.org/10.1037/0022-3514.52.3.511>
- Hibberd, R., Elwood, L. S., & Galovski, T. E. (2010). Risk and protective factors for posttraumatic stress disorder, prolonged grief, and depression in survivors of the violent death of a loved one. *Journal of Loss and Trauma*, *15*(5), 426–447. <https://doi.org/10.1080/15325024.2010.507660>
- Homer. (800 B.C.E). *The Iliad: Book XVIII*. Retrieved May 23, 2018, from <http://classics.mit.edu/Homer/iliad.18.xviii.html>
- Iraq and Afghanistan Veterans of America. (2017). IAVA 2017 Annual Member Survey. Retrieved October 29, 2017, from https://iava.org/wp-content/uploads/2016/05/IAVA_Survey_2017_v11update.pdf
- Jordan, J. R. (2001). Is suicide bereavement different? A reassessment of the literature. *Suicide and Life-Threatening Behavior*, *31*(1), 91–102. <https://doi.org/10.1521/suli.31.1.91.21310>

- Kaplow, J. B., Layne, C. M., Saltzman, W. R., Cozza, S. J., & Pynoos, R. S. (2013). Using multidimensional grief theory to explore the effects of deployment, reintegration, and death on military youth and families. *Clinical Child and Family Psychology Review*, *16*(3), 322–340. <https://doi.org/10.1007/s10567-013-0143-1>.
- Kreicbergs, U. C., Lannen, P., Onelov, E., & Wolfe, J. (2007). Parental grief after losing a child to cancer: Impact of professional and social support on long-term outcomes. *Journal of Clinical Oncology*, *33*(7), 3307–3312. <https://doi.org/10.1200/JCO.2006.10.0743>
- Lubens, P., & Bruckner, T. A. (2018). A review of military health research using a social–ecological framework. *American Journal of Health Promotion*, *32*(4), 1078–1090. <https://doi.org/10.1177/0890117117744849>
- Miles, M. S., & Demi, A. S. (1992). A comparison of guilt in bereaved parents whose children died by suicide, accident, or chronic disease. *Omega-Journal of Death and Dying*, *24*(3), 203–215. <https://doi.org/10.2190/G41E-RKTF-P0XD-LJLK>
- Mikulincer, M., & Shaver, P. R. (2008). An attachment perspective on bereavement. In M. S. Stroebe, R. O. Hansson, H. Schut, & W. Stroebe (Eds.), *Handbook of bereavement research and practice: Advances in theory and intervention* (pp. 87–112). Washington, DC, US: American Psychological Association. <https://doi.org/10.1037/14498-005>
- Murphy, S. A., Johnson, L. C., Wu, L., Fan, J. J., & Lohan, J. (2003). Bereaved parents' outcomes 4 to 60 months after their children's deaths by accident, suicide, or homicide: A comparative study demonstrating differences. *Death Studies*, *27*(1), 39–61.
- Nock, M. K., Deming, C. A., Fullerton, C. S., Gilman, S. E., Goldenberg, M., Kessler, R. C., ... Schoenbaum, M. (2013). Suicide among soldiers: A review of psychosocial risk and

- protective factors. *Psychiatry: Interpersonal & Biological Processes*, 76(2), 97–125.
<https://doi.org/10.1521/psyc.2013.76.2.97>
- Ott, C. H. (2003). The impact of complicated grief on mental and physical health at various points in the bereavement process. *Death Studies*, 27(3), 249–272.
<https://doi.org/10.1080/07481180302887>
- Papa, A., Neria, Y., & Litz, B. (2008). Traumatic bereavement in war veterans. *Psychiatric Annals*, 38(10), 686–691.
- Pivar, I. L., & Field, N. P. (2004). Unresolved grief in combat veterans with PTSD. *Journal of Anxiety Disorders*, 18(6), 745–755.
- Prigerson, H. G., Bierhals, A. J., Kasl, S. V., Reynolds, C. F., Shear, M. K., Day, N., ... Jacobs, S. (1997). Traumatic grief as a risk factor for mental and physical morbidity. *American Journal of Psychiatry*, 154, 616–623.
- Prigerson, H. G., Bridge, J., Maciejewski, P. K., Beery, L. C., Rosenheck, R. A., Jacobs, S. C., ... Brent, D. A. (1999). Influence of traumatic grief on suicidal ideation among young adults. *American Journal of Psychiatry*, 156(12), 1994–1995. Retrieved from
<https://ajp.psychiatryonline.org/doi/10.1176/ajp.156.12.1994>
- Shatan, C. F. (1974). Through the membrane of reality: “Impacted grief” and perceptual dissonance in Vietnam combat veterans. *Psychiatric Opinion*, 11(6), 6–15.
- Siebold, G. L. (2007). The essence of military group cohesion. *Armed Forces & Society*, 33(2), 286–295. <https://doi.org/10.1177/0095327X06294173>
- Smith, T. C., Wingard, D. L., Ryan, M. A. K., Kritz-Silverstein, D., Slymen, D. J., Sallis, J. F., & Millennium Cohort Study Team. (2008). Prior assault and posttraumatic stress disorder

- after combat deployment. *Epidemiology*, 19(3), 505–512.
<https://doi.org/10.1097/EDE.0b013e31816a9dff>
- Stroebe, W., Zech, E., Stroebe, M. S., & Abakoumkin, G. (2005). Does social support help in bereavement? *Journal of Social and Clinical Psychology*, 24(7), 1030–1050.
<https://doi.org/10.1521/jscp.2005.24.7.1030>
- Stroebe, M., Stroebe, W., & Abakoumkin, G. (2005). The broken heart: Suicidal ideation in bereavement. *The American Journal of Psychiatry*, 162(11), 2178–2180.
<https://doi.org/10.1176/appi.ajp.162.11.2178>
- Stroebe, M., Schut, H., & Stroebe, W. (2007). Health outcomes of bereavement. *The Lancet*, 370(9603), 1960–1973. [https://doi.org/10.1016/S0140-6736\(07\)61816-9](https://doi.org/10.1016/S0140-6736(07)61816-9)
- Toblin, R. L., Riviere, L. A., Thomas, J. L., Adler, A. B., Kok, B. C., & Hoge, C. W. (2012). Grief and physical health outcomes in US soldiers returning from combat. *Journal of Affective Disorders*, 136(3), 469–475.
- Walker, K. N., MacBride, A., & Vachon, M. L. (1977). Social support networks and the crisis of bereavement. *Social Science & Medicine*, 11(1), 35–41. [https://doi.org/10.1016/0037-7856\(77\)90143-3](https://doi.org/10.1016/0037-7856(77)90143-3)
- Williams, T. (2012, June 8). Suicides eclipse war deaths for U.S. troops. *New York Times*. Retrieved from <http://www.nytimes.com/2012/06/09/us/suicides-eclipse-war-deaths-for-us-troops.html>
- Wortman, C. B., & Silver, R. C. (1989). The myths of coping with loss. *Journal of Consulting and Clinical Psychology*, 57(3), 349–357. <https://doi.org/10.1037/0022-006X.57.3.349>
- Zisook, S., & DeVaul, R. (1985). Unresolved grief. *American Journal of Psychoanalysis*, 45(4), 370–372. <https://doi.org/10.1007/BF01252871>

CHAPTER 2

A Qualitative Study Exploring How U.S. Combat Veterans Experience the Combat and Suicide Deaths of Comrades

Introduction

As described in the previous chapter, since the wars in Afghanistan (Operation Enduring Freedom, OEF) and Iraq (Operation Iraqi Freedom, OIF) began in 2001 and 2003, respectively, more than 5,400 U.S. service members have died in combat. As U.S. combat operations in those two conflicts have wound down, the military suicide rate has exceeded the combat casualty rate. As the results of the 2017 Iraq and Afghanistan Veterans of American (IAVA) survey (Iraq and Afghanistan Veterans of America, 2017) indicated, nearly 60% of OIE/OEF veterans know another veteran who has died by suicide and 65% know another veteran who has attempted suicide. A thorough search of available data has yield no information about the percentage of OEF and OIF veterans that have lost a comrade in combat. However, among a sample of Vietnam veterans, 68.1% of Vietnam Veterans reported that they had lost a close friend to combat during that conflict (Currier & Holland, 2012).

Background

Not only is there little data about veterans' loss of comrades, we know little about how they experience the loss of comrades and what factors influence how they respond. However, we can look to research focusing on grief in the civilian community as a guide. Studies have found that in the civilian community, grief responses differ according to whether a death is expected or unexpected (Bailey, Kral, & Dunham, 1999), the mode of death (Miles & Demi, 1992), and the closeness of the individual's attachment to the deceased (Servaty-Seib & Pistole, 2007). When distinguishing between expected and unexpected deaths, both suicide and violent deaths (e.g., homicide or motor vehicle accidents) have been classified as unexpected and associated with more adverse responses compared to expected deaths, such as those due to illness or life expectancy (Bailey et al., 1999). Furthermore, bereavement over the two modes of death may

differ because of the societal stigmatization of suicide (Doka, 2008). Not only is dying by suicide considered to be a shameful act, but the survivors of suicide are more likely to face rejection and stigma themselves. Moreover, scholars have suggested that the meaning a survivor can attach to a death can also influence bereavement (Gillies & Neimeyer, 2006). Maercker and colleagues (1998) conducted a mixed methods study of bereaved adults and analyzed the content of the narratives that emerged from semi-structure interviews. They then examined the association between the content of those narratives and empirical measures of grief, depression and anxiety. Their results suggested that those participants whose narratives had more positive content were at lower risk for grief compared to participants whose narratives had more negative content.

Thus, the depth of the research in the civilian community provides a framework for bereavement among veterans. However, we know little about veterans' grief responses and if bereavement in the military context is consistent with responses in the civilian community. Because death in battle is as old as war itself, we might wonder if veterans share their civilian counterparts' perception that violent death is unexpected. On the other hand, suicide death may be as unexpected in the military context as it is in the civilian world. Moreover, as mentioned previously, grief research in the civilian community suggests that grief responses vary with the meaning that survivors attach to a death. Thus, we might consider whether veterans attach greater meaning to a combat death than to a suicide death. Death in battle may be regarded as heroic and meaningful while suicide death may be seen as cowardly and meaningless. These are the questions this qualitative study was intended to pursue.

The Present Study

The aim of this study was to understand how combat veterans have experienced the losses of comrades in combat or by suicide. This was a phenomenological study — a qualitative study

that focuses on what participants have in common as they experience an event or phenomenon (Creswell, 2007). The study aim was to understand how veterans have experienced the combat and suicide deaths of their comrades and to identify the salient themes that suggest what factors influence their responses and what common themes or perceptions they share.

Methods

The study protocol and all procedures were approved by the Institutional Review Board of the University of California, Irvine.

Recruitment

OEF and OIF combat veterans who had lost military comrades to *both* combat and suicide were recruited through purposive snowball sampling in order to draw upon a broad range of perspectives. Snowball sampling is a form of chain referral sampling that began as a method of studying social networks (Heckathorn, 2011). It is typically used to access hard-to-reach populations or populations for which standard statistical sampling methods are not feasible in the absence of a list from which participants can be drawn. Of course, there is no list of combat veterans who lost comrades from which participants for this study could have been efficiently selected, and thus random sampling was not possible. Snowball sampling begins with a convenience sample – necessary because if random sampling were feasible then the population in question would not qualify as hidden (Heckathorn, 2011). A central condition for successful snowball sampling is that members of the hard-to-reach population know each other (Kalton & Anderson, 1986). Biernacki (1981) pointed out that snowball sampling is especially appropriate for use in research focusing on a sensitive issue and consequently requires special “insider access” in order to recruit study participants. Through snowball sampling, a researcher creates a participant network by receiving recommendations for additional interview candidates from

existing participants. In addition, recruitment may be through key informants — individuals who are not necessarily part of the study population, but who are familiar with the population professionally or personally. The participants who refer others and the key informants are the “nodes” in their networks.

This sampling method is also preferred when a researcher believes a project will be most rigorous if the population of participants is selected not randomly, but deliberately, with the expressed aim of including respondents who will best provide the rich narrative data that is key to meeting the research goal of understanding a phenomenon or a culture (Heckathorn, 2011). Purposive snowball sampling was appropriate for this study in order to recruit veterans who could fulfill the research aim of understanding how veterans experience the deaths of comrades, and if a comrade’s combat death evokes different grief response than a comrade’s suicide death. Even if using a list that specifically identified OEF and OIF combat veterans, random sampling methods would have been unlikely to yield a population of veterans who have experienced both kinds of losses.

Recruitment commenced in 2016 with a combat veteran of the U.S. Army 101st Airborne who had lost comrades in combat and by suicide and whose social network included other veterans who had experienced similar losses. Each veteran who was subsequently interviewed was asked to refer two others for recruitment who met the inclusion criteria: An OEF or OIF combat veteran who had lost comrades to *both* combat and suicide. Female veterans were excluded because until 2015, combat jobs were not available to women in the U.S. Military (Kamarck, 2015) and thus, few had yet actually completed infantry or combat training or had served in combat roles at the time the study was in process.

Veterans who had given permission for their contact information to be shared for the purpose of recruitment were contacted via telephone for an initial screening call during which they received more details about the study procedures, had an opportunity to ask any questions they may have had about the interview process, the researcher's background and aims, and confirmed that they had lost comrades to *both* combat and suicide. This initial conversation was also intended to build rapport for the interview. Thus, the conversation was also about what they were presently doing (e.g., in school or working), their familiarity with military health research, or any other topic that could serve to create an affinity. The telephone conversations, which typically took about 20 minutes, concluded with an appointment for a face-to-face interview.

Recruitment challenges. It was anticipated that one of the primary challenges of this study would be recruiting combat veterans who were willing to answer questions about losing comrades to combat and suicide. Loss and the emotions that often accompany it are delicate topics that can be a challenge to address. In light of the perception that a population of combat veterans will pride themselves on courage and stoicism, there was an expectation that recruiting enough willing participants would be especially difficult. The veterans who agreed to be interviewed embraced the study's aim of furthering the understanding of the toll of war on those who serve in combat. There was often discussion during the initial recruitment phone conversations about the perception that the loss of comrades is rarely addressed clinically or publically, and that researchers and clinicians are likely to more often focus on PTSD. When asked upon completion of their own interviews to refer two other veterans who fit the inclusion criteria, many were optimistic that they could refer candidates for participation. However, in most cases, the veterans would later apologetically report that none of the veterans they contacted were willing to talk about their losses.

Thus, the snowball recruitment collided with what one might call “snowbanks” that blocked the path to extending a network and lengthened the recruitment process considerably. Recruitment continued for nearly 20 months. The first interview was conducted February 21st, 2016; the last interview was conducted October 12, 2017. Only nine of the 28 veterans interviewed successfully referred another veteran for participation, and of those nine, only three were each able to refer two veterans. The other six each referred one veteran. Additional networks of participant were created through key informants who were veterans who had not lost comrades to both combat and suicide; were individuals that worked with veterans through non-profits; were acquainted with the lead researcher previously; or, in one case, was known by the lead researcher to have family members who had served Afghanistan or Iraq.

Scheduling the interviews was at times a process fraught with complications and setbacks. In some cases, veterans were readily available for the initial conversation and their interviews were easily scheduled—only dependent on scheduling air travel which was necessary to interview those who lived outside California. In other cases, veterans were difficult to reach, asked to repeatedly reschedule appointments for the initial telephone conversation, and cancelled or postponed an interview appointment. In two cases, after interviews had been scheduled, veterans rescheduled or postponed interview appointments due to hospitalization for combat-related illness. In one case a veteran was unreachable for over a year, until he eventually resurfaced and an interview could be scheduled.

Data Collection

Interview procedures and process. Despite the recruitment challenges, combat veterans in 11 U.S. states were interviewed. See Figure 2.1 for a map of the interview networks. Each face-to face interview lasted on average 1.5 hours, was conducted in person at a location chosen

by the veteran, and was audio-recorded with the participant's consent. It was important that the participants chose the locations and that the interviews were conducted where they felt most comfortable so they could reply as openly as possible in light of the fact that the topic of this inquiry is personal and possibly intensely emotional. Interviews commenced using an initial guide that included open-ended questions about the interviewees' military history, combat deployments, relationships with other members of their units, and descriptions of any losses of comrades. Follow-up questions were prompted by responses to the initial queries. (See Appendix 2A at the end of this chapter for the interview guide.)

Compensation. All interview participants were compensated with a \$20 Amazon gift card.

Post-interview resources. At the conclusion of the interview, participants were provided with a list of mental health resources in the event they felt they needed assistance or support.

Text Analyses

Interview recordings were transcribed regularly by the author and a research assistant for preliminary examination. Following completion of all interviews, the analysis process was conducted by the author, guided by Interpretive Phenomenological Analysis (IPA). IPA is a qualitative analysis that focuses on how participants perceive an experience and seeks to understand the meaning they ascribe to it, in contrast to exploring causes of events or phenomena (Larkin & Thompson, 2011). Analysis of the transcripts' text began with line-by-line coding focusing on the action words in the sentences. Subsequent coding identified key words, and applied core and axial categories until salient themes emerged that captured how combat veterans experienced the deaths of comrades in combat and by suicide, and the meaning they ascribed to those deaths. See Figure 2.2.

Results

The Sample

The participants (N=28) had a mean age of 32.8 (ranging from 25-42). Most were in the Army (44.8%, n=13) or Marines (41.4%, n=12); 13.8% (n=4) had been in the National Guard; one participant had been in both the Army and the Army National Guard. Most veterans interviewed identified themselves as “Hispanic or Latino” (35.7%, n=10) or “White, non-Hispanic” (32.1%, n=9); 14.3% identified as “Multi-racial or Multi ethnic (n=4); 7.1%, as “Native American or Alaskan Native” (n=2); 3.6%, as “Asian” (n=1), 3.6 % as “African American or Black” (n=1), and 3.6%, as “Arab” (n=1). Almost 30% had attended some college and 59.2% had graduated from a university or had a post-university education. All participants were male since being female did not fulfill the inclusion criteria.

Themes

Analysis of the interview transcripts revealed seven themes: 1) Suicide death as unexpected makes acceptance of death more difficult; 2) Combat death as expected eases acceptance of death; 3) Combat death as heroic can also ease acceptance of death; 4) Brotherhood forged in combat intensifies the emotional response; 5) Guilt over inability to prevent a comrade’s death makes acceptance more difficult; 6) Attribution of blame for a death creates anger; and 7) Detachment from the civilian world exacerbated grief over losing comrades. Each theme will be discussed in turn below, with verbatim quotes that are presented anonymously to protect the identities of the veterans.

Suicide death as unexpected. Veterans characterized suicide death as unexpected and more difficult to accept. For example, one veteran said that he tried to investigate his friend’s death as a homicide, because he could not initially accept that he had died by suicide. Another

veteran described his surprise and that of others with whom he had served when they were informed of his comrade's death by suicide because his entire unit had survived their combat deployment:

"... a lot of us were hit pretty hard about it, because we come home hundred percent ... Some of us were missing a percentage of their body, but we came back all alive ... and today we're still left without answers ..."

In many cases veterans said their comrade's suicide was unexpected, in light of the perception that he appeared to have a life that was on track (e.g., was married, starting a family, and had secured a good job). One veteran recalled his own suicidal ideation when he first came home and speculated that people might look at him and not realize his own struggle:

"... suicide is just very unexpected. It was like people, people look at me, my, the first 3 years when I came home, I, I, I was, I had like a letter, I had a gun, I almost committed suicide. But, people always look at me like, oh man ___ *name withheld* ___ he has a life, his life is good. It was pretty much like, like that's just what I show. No one knows what goes on, even, like even, my girlfriend knows more so now but like I can't even say ... like she knows everything ... I can't even say she knows some of my thoughts or whatever the case may be. Yeah but suicides, you can't prepare for suicide."

Combat death as expected. Participants said losing a comrade in combat is expected when serving in war and that preparing for death is part of military training. One described an officer instructing the assembled recruits to look to their left and to their right and accept that some of their comrades would not return home from deployment. Another veteran, recalling the day a friend died in combat, described his premonition that members of his unit would die during the mission:

"You're sad about it, but at the same time, it's like we all accept certain losses when we pick a certain lifestyle ... we were so trained for it ... We

were very positive that day. Specifically, that day, going on that road, we were going to get hit ...”

Another veteran also talked about the expectation that troops die in combat. However, he also characterized it as an obligation of the job:

“Every last wretched one of you are expected die the same way if it comes down to it, because that's what we do. And, uh, you keep doing it. Whadya do? You quit being a pussy and go the fuck outside the wire, do your job ...”

As part of the expectation that there will be combat deaths, veterans described the aftermath of combat deaths as being a time during which their primary response was to focus on the work they needed to do. The time to respond emotionally had to wait:

“... one of the strangest things in combat is that it doesn't matter if you lose 2, 3 people in your own platoon, within 4 hours you're back out there again, there's no rest, there's no hey I need some time to collect my thoughts, never.”

Another veteran who had been an officer talked about how he responded when a comrade died and how his responsibility to be a role model for his troops required him to delay any emotional reaction:

“An N.C.O. (Non-Commissioned Officer) in combat has never had the luxury of expressing his emotions in front of his troops. Um, some of the troops cried. Some of the troops lost heart. I never did. I always wanted to lead by example, at least in that respect. Uh, I didn't process the death as far as, you know, as far as going through the regular stages of grief. I didn't. I considered it, and I thought, oh this sucks, this is fucked up, and that's bullshit, and he was a great guy. Could be any of, any of us tomorrow. And we still have a job to do, and let's, let's go do it ...”

One veteran recalled his own lack of emotion when comrades died in battle and his feeling that his comrades should “snap out of it.” He attributed this response to his training and the expectation that there would be combat deaths:

“... it was more like yeah it, it’s supposed to happen, it’s gonna happen it was more like that. I was almost like pretty much trained like not to be what is it, express my emotions that much or whatever ... when we were doing our work up, they were saying we were gonna lose people; our higher ups ... they were like yeah, like there’s a good chance that some of you guys are gonna get killed ...”

Combat death as heroic. Veterans said that defining their comrade’s combat death as heroic or meaningful eased their acceptance of his death. Some said they took comfort in the notion that their comrade died while engaging in work for which he felt a sense of mission. One articulated his own pain from losing his friend, while also imagining how his friend might have responded to dying in combat: “... it still hurts yes, but he died doing something he loved. He was one of my best friends ... If he was going to go, that's the way he wanted to go ...”

Others took comfort in their perception that their comrade had saved lives. One veteran placed value in realizing how many casualties his comrade likely prevented:

"... what he did was an amazing feat ... Physically human speaking, selflessly, um, out of the 15 Afghan National Army soldiers that were with him that night, and the 7 ODA special operations guys, and Special Forces Green Berets that were with him, all of them came back because of him. Because of what he did. It's not that cliché, he ran into a wall of fire and everybody pulled out left him. He focused and concentrated all the fire on to him.”

Brotherhood forged in combat. Veterans described sharing a common goal to protect the lives of other unit members during combat, which created a brotherhood several likened to a “tribe.” One veteran said:

“...we all have a common goal ... To come back home ... you don’t let the person that’s to your left and right down, because they’re depending on you ... a bunch of brothers around one another, interact like brothers. That’s what the tribe, being in that tribe is like.”

Veterans talked about how this brotherhood was forged not only in combat but during training as well:

" ... you know, having feelings of commitment to one another, and to the concept of the Marine Corps. ... We still don't like certain things about one another. We still get on each other's nerves but, uh, we'd, we'd die for each other and kill for each other. And that's a, that's a big thing in a relationship like that."

A veteran talked about how his connection to his comrades took precedence over how he felt about the war itself: "Like I said, I didn't believe in being there, but I believed in the Marines, and I was there for Marines. I was there to fight with my brothers."

One veteran characterized this brotherhood as setting aside any personal differences in service of his comrades:

" ... when you pull everything off, when you strip away personality, and personal credos and cultures and traits, that's what we are. It's a very, uh, atavistic type persona, you know We are bare bones, primordial hunters and killers, and mutual respect for having to stick (to) your fortitude."

One Marine said that part of that brotherhood is the instinct to unconditionally support another Marine in times of danger:

"But, as a Marine, the bond with fellow Marines is unbreakable. You could hate somebody to death, you want to kill him yourself. But if somebody else starts shit with them, you have their back one hundred percent."

In discussing their responses to those comrades who were wounded, but not fatally, veterans described their intense bonds with those who had been injured:

" I remember kissing __name withheld__ on the forehead. He was completely unconscious. I kissed him on the forehead and I said 'We'll see you again.' They flew him out to Balad. And from Balad, they, they, stabilized him even further to fly to Iraq. And then they flew him from there to Landstuhl, Germany. German to Bethesda, Maryland....I called my parents ... They were just waking up. I remember calling and they could sense right away I was calling for a reason. I immediately started bawling. I said 'they got us today.'"

He began to cry as recalled that day, he added: “I’m emotional about it because it’s almost [as if] it happened yesterday.” Sighing he added:

“But, we’re not invincible, but we were doing so good. And, uh, the one time they got us they got a lot of us. It wasn’t like what one of us got shot in the leg and we sent him home with a purple heart. They got seven of us. They got six of us. Severely six of us in one blow.”

One veteran contrasted the brotherhood in combat to his relationships with people in the civilian world. In addition, he described that his grief over a comrade’s death was unrelated to whether he considered the person to be a close friend, but more attributable to his bonds to those with whom he served:

“... when you’re in the military you have that sense of brotherhood and that sense of connection and everything. ... it’s something I don’t feel like that you have any chance of finding, you know, in the civilian world. It’s very unlikely that I’m going to be able to forge the kind of relationships I have with these guys, and it’s sort of uh, you know, when you lose somebody like that it is like losing a family member.”

Guilt over inability to prevent a comrade’s death. Although acceptance of a comrade’s death was based largely on the expected or unexpected nature of the death, guilt over comrades’ deaths — whether in combat or by suicide — made the deaths more difficult to accept. In the case of a comrade dying in combat, veterans recalled last-minute changes in a mission’s logistics that they perceived made the difference between who lived and who died. In other instances, veterans blamed themselves or wondered if they had done enough to save a comrade’s life. One veteran, lamenting deaths of troops who served under his command, said: “I failed my job. My duty was to keep my men safe and I couldn’t ...”

Another veteran second-guessed his own response and those of other members of his unit: “... you know, we could have done more. Or those guys could have drove in faster ... to make

sure he stayed alive ...”

One participant described his feeling that it was his own shortcomings that caused his comrades’ deaths:

“I was really hard on myself. What could I have done differently? Um, the perceived acts of cowardice that I didn't forgive myself for like when *__identity omitted__* was hit and I, I froze up for ten seconds, maybe. I called myself a coward for that, because I froze up in combat, because I was thinking about myself, and I didn't want to get my ass blown off instead of thinking about the mission and my men. ... A lot of the guilt for me is like, ‘wow you really pushed out on that, on that incident right there’ ...”

As did many veterans, he said he felt guilt that his comrade died instead of him: “Uh, a lot of the guilt is, is, why didn't I get killed? You know, it's always the good ones, never pieces of shit like me that get killed.”

When discussing a friend’s suicide, some participants described their guilt over not remaining in contact after returning home, or not being supportive enough when their friend reached out. One veteran expressed guilt over being unavailable to his friend when he called him, and wondered if taking the call could have saved his life:

“And he wanted, ‘Hey you gotta minute? We can talk’ I'm like ‘man I can't right now; let's do lunch sometime this week.’ Well, it never happened. I'm in Tajikistan about a month later ... His body was found in his house, and I was wracked with guilt ... I could have stopped, spoke to him for five minutes ...”

Attribution of blame for a death provokes anger. When discussing both combat and suicide deaths, veterans’ attributions of blame provoked anger that they directed at whomever they felt was responsible for their comrades’ deaths. In the case of combat deaths, they directed their blame and anger at the enemy forces who took their comrade’s life. In the case of suicide, veterans primarily directed blame at their comrade for taking his own life:

“when my friend was killed in combat I was mad at the Iraqis for putting a IED out there. The terrorists, whatever you want to call them. Uh, then when my friend *__name withheld__* killed himself, I was mad that he had done that...”

Another veteran, recalling his anger at his comrade who died by suicide, said:

“It made me so mad, just overcome with anger and, the loss is even, not more profound, but more acute, just because it's juxtaposed with peace and stateside living ... Someone gets killed in combat it sucks, but you kind of got to expect. Over here, we made it, we made it, come on we made it. We get a second chance, third chance whatever, and let's live our lives and, make the best of it ... And when you still lose a friend, god, extreme violation of expectations and that, that's what really breeds the bitterness. It's like, man you fuckin' sellout, man.”

One veteran described at a friend's suicide as a selfish act and, like so many other participants, voiced anger at his comrade because he had not reached for support:

“I was really mad about it. Uh, I didn't understand it yet ... I wasn't in the right mind set ... I thought it was like selfish and I mean ... he had a family, he had kids, uh. A lot of us were upset, like mad at him for doing it. And it's not like we didn't talk. Like all of us. Like everybody still talked. You already had somebody there for you. He didn't rely on, on that, so ... So, I was like a really close friend. We've been through some crazy shit together. Even at home, like, screwing off at home. Like, all the memories we made at home ... it was way more than anger than me being sad at first ... He never reached out to anybody.”

One veteran vividly described the night his comrade died by suicide while on guard duty, and how he then lashed out at their platoon sergeant:

“So, when I heard the shot fire in his tower, I immediately knew. You know we had already had three people try to kill themselves in my platoon. And I just knew he'd just killed himself. But I went to go check and I walked up the tower, climbed up the tower, and he left a letter there. And I just called it up on the radio. And uh announced that he'd killed himself. I checked his pulse; he was dead. And, you know, when my platoon sergeant came I regret this, but I put it on him. I put it on my platoon sergeant at the time ... I was putting it on

him because of the way he was training us and the lack of empathy he had for us overall.”

He said that after returning home and having additional time to reflect, he characterized his comrade’s suicide as a betrayal of those who had died in combat:

“And this seems unjust for you to survive that war and give so much, and come back and blow your shit away. That's, uh, that's, that’s not just for you. and it's not just for those who didn't make it out of the war.”

One veteran described his love for a friend who died by suicide and his anger that his comrade had not reached out for help. However, he also speculated that he could not truly relate to his friend’s pain. Articulating how he might address his friend about these issues he said:

“I love you. I'm so mad at you ... Maybe, we could've helped you or something, maybe. But who knows honestly? You know because I can't fathom how it truly feels to be missing half your body, having ghost pains, and migraines, and night terrors, tears, and just pain, constant fucking pain.”

He also expressed anger at a comrade whose life he had saved in combat but who then died by suicide after returning home: “It was like that was really traumatic for me to go out there and patch you up while people were shooting at me and you just blew your shit away. It’s a dick move.”

Veterans also directed blame and anger at decision-makers higher up the chain of command whose decisions they perceived were responsible for a comrade’s death. One veteran described his perception that commanders who were not even in the field but were safely ensconced in a distant office made decisions that were more for their own self-aggrandizement than in the service of the combat mission. He described a decision to deliver, via helicopter, food rations to his unit on a daily basis. He said that they did not need the daily deliveries and that some of his fellow soldiers had voiced concern that the local Taliban forces would eventually realize that the soldiers would be gathered in the same place every day in order to receive the

rations. Eventually they were ambushed there and several soldiers were killed:

“... every single person who died down range, died because of mistakes that did not have to happen, because somebody was lazy, or somebody was, you know, egotistical ...”

Finally, some veterans blamed what they perceived to be inadequate resources at the Department of Veterans Affairs (VA) facilities, the inability of the VA to establish trust with veterans, or the lack of alternatives for seeking help. One veteran said: “I wish the VA would go or ... I wish that someone would go out there and help more people like ... any kind of vet.”

Another talked about his own lack trust of the VA:

“I mean how is the VA or the Army going to treat people who are suicidal when these people don’t trust them, if they don’t, you know if they don’t uh feel comfortable talking to them ... You would think that the government would look into funding that kind of thing more if it’s more effective. I can tell you right now I don’t, I don’t talk to the VA. I don’t go to their psychiatric help, because every time I’ve ever talked to them about anything it’s just been, you feel like you’re wasting your time ...”

Detachment from the civilian world exacerbated their grief. Veterans described returning home to communities that they perceived were disengaged from their war experiences, which praised them as heroes and overlooked their losses. One veteran cried as he recalled frustration over receiving praise from community members when he returned home, while he speculated that if he had actually performed better, so many of his comrades would not have died in combat:

“...it’s like, everybody telling me, I did a good job when you don’t know what the hell I was doing ... when you have no clue what I was doing or if I did a good job ... How come, everybody else didn’t get home ... Yeah, it was like, shit, how was that a good job? That was like 14 of my guys.”

Another veteran described his perception that his family was disinterested

and that he lacked opportunity to share his emotions or talk about his losses:

“My family never asked anything. They never, like ‘how was it?’ ... I don't think they had any inkling of what I went through. Uh, yeah, they never, at least not I can remember. They might have asked something more substantive...”

Another veteran described his alienation from a civilian community that he perceived did not appreciate the gravity of what he had experienced in combat:

“...war is an ugly thing and um, you know it's not there to entertain people. And I think it's why a lot of people have difficulty to talk about these experiences when they feel like people are kind of being, you know kind of crass with the whole thing. It's just like well I just don't want to open myself up to you, you know, and then, and then you turn around you're going to like sit there and just like be entertained by it and you know just like look at me like I'm a spectacle of some sort.”

Discussion

The rich narratives that unfolded during the interviews tell a different story than the grief research in the civilian community. Although in the civilian community violent deaths may be regarded as unexpected, combat veterans said that they expect deaths in battle. In fact, many veterans, when describing their training, recalled that commanders make it clear to them that some members of their units will die when they are combat deployed. On the other hand, as in the civilian community, the veterans interviewed characterized suicide deaths as unexpected. After returning home from a particular deployment, relieved that none of their comrades had fallen in battle, they did not anticipate the death later of one of those comrade by suicide.

The themes also suggest that the blame, anger and guilt responses to comrade's deaths are similar whether the mode of was combat or suicide. Veterans directed their blame and anger at whomever killed their comrade, regardless of the mode of death. In the case of combat death, they directed their blame and anger at the enemy forces that killed their comrade, while in the

case of death by suicide they directed their blame and anger at their comrade who took his own life. Moreover, they blamed themselves for their comrades' combat *and* suicide deaths and expressed a similar guilt over both modes of death. In the case of combat death, veterans wondered if they had taken enough action to save their comrades' lives. In the case of suicide, in some cases they speculated that they may have been able to save a comrade's life if they had kept in closer contact with their comrade or were more responsive when their comrade reached out to them. In addition, veterans also blamed third parties for both modes of death, such as commanders whose decisions they perceived led to their comrade's death, inadequate counselling resources at the Department of Veterans Affairs (VA) facilities, or the inability of the VA to establish trust among veterans.

A Conceptual Framework for Veteran Grief

This study provides a conceptual framework for understanding how combat veterans experience the suicide and combat deaths of their comrades (see Figure 2.3) and how their perceptions of the two modes of death experience influence their grief. The perception of combat death as heroic and intrinsic to war or a suicide death as unanticipated may also influence how a veteran grieves his comrade's death and the ease or difficulty with which the death is accepted. Both modes of death lead to blame and anger, which also influences a grief response. The brotherhood forged in combat can lead to guilt over a comrade's death, because part of that brotherhood or "tribe" is the responsibility to protect the lives of compatriots. Furthermore, this mission to save a comrade's life in combat carries over to the mission to take responsibility for a comrade's wellbeing after returning home from war. Finally, the theme of detachment from the civilian community suggests that grief and detachment mutually influence one another. Civilians telling veterans that they did a "good job" in combat may, as some veterans said, conflict with

their grief over not having been able to save comrades' lives. In turn, disenfranchised grief, as theorized by Doka (2008), may lead to detachment from a community that does not acknowledge a veteran's bereavement.

Emerging Themes

There were additional themes that emerged in the qualitative component interviews, although not often enough to be included among those that were more salient. However, they are worth discussing because they are candidates for future lines of inquiry: 1) Moral injury and 2) Sense of purpose.

Moral injury. Moral injury, defined as engaging in or witnessing actions that conflict with one's moral beliefs (Litz et al., 2009) was addressed by Jonathan Shay in his seminal book, "Achilles in Vietnam," which discussed combat trauma within the context of *The Illiad*, the Greek poet Homer's tale of the final phase of the Trojan War. This concept of moral injury in the context of combat service has been explored by other scholars and researchers in recent years (e.g., Jones, 2018).

Veterans raised the concept of engaging in remorseful acts when they speculated on why their comrade may have died by suicide. One veteran, after inquiring if the interviewer was familiar with the term "moral injury," discussed what he termed the "moral ambiguity" of serving in combat and its role in adverse mental health and suicidal ideation in veterans:

"... having been a part of, um, a war machine. You know I find it morally offensive. And, so, ambiguity stems from that. I participated in it. I mean, I joined the war to help protect and make people feel better. I didn't agree with the war. But I went anyway. And I thought that would give me kind of a moral high ground to stand upon. But no. The things I had to witness and do, uh, that's what keeps me up at night."

Another veteran, speculating on why his comrade died by suicide, despite a recent marriage and a life that was seemingly on track, talked about incidents that he said were regretful:

“Oh, but I think that just like *__name withheld__* and myself there are certain moments where you wish you could probably take something back or you wish you could do something differently and uh, and sometimes it doesn't work out that way and you've got to live with whatever the guilt ...”

When asked for details or examples, he declined to elaborate.

Sense of purpose. Some of the veterans talked about lacking a sense of purpose when they returned home from war and how that was a risk to their wellbeing. One described lacking a sense of purpose led him to withdraw from his family and to isolate himself from everyone he knew:

“There's a line in the Marine Corps rifleman's creed. You know, ‘this is my rifle. There are many like it, but this one is mine.’ One line kept going through my head during those dark hours of sheer loneliness, you know, loneliness. And it was, ‘without my rifle I am useless.’ Without me, my rifle is useless. Just, without my rifle I'm useless. Without my rifle, I'm useless. It just kept going through my head.”

He added that he had learned through counselling to develop a sense of purpose and that this was important not only for his own wellbeing, but possibly could contribute to decreasing the veteran suicide rate:

“... purpose is crucial. If not for my friends still being there for me and if not for the *____specific place where he has trained for civilian work ____*, I probably would've started my Glock a long time ago. So, support network and purpose for me keeps me going, and I think that if there is some sort of an antidote to the epidemic, that would be a good place to start.”

Other veterans also identified returning home from war without a sense of purpose as a risk for veteran suicide. One said of his comrade's death by suicide:

“When you feel like an individual feels like that they don’t have a sense of purpose, that's when it starts to take a toll. Because, you have this whole sense of purpose ... whether you do four years, or, in his case, he did two years... But I think he hit the point where he just, he really felt like he didn’t, he didn't have anything to offer.”

This same veteran also discussed how lacking a sense of purpose contributed to his own past suicidal ideation:

“... if you don't feel like you have any sense of purpose whatsoever at all, and ... that could be the most minute thing, you start to question whether or not you belong here anymore, you belong in the world — for me. And this is something I went through in treatment. Like, they say, uh, you get past it. But do you really? You always have that part of that. Everybody has to have something to live for.”

Strengths and Limitations

The strength of this study was the geographic distribution of the participants, the deployment experiences (multiple deployments, deployments to Afghanistan and Iraq), as well as representation of the military branches that engage in combat duty. Moreover, despite the obstacles, the successful recruitment of 28 participants whose narratives enabled the study to reach a saturation of the salient themes is another strength.

The limitation of the study is that it is unlikely that veterans willing to participate in interviews and tell their stories of loss and grief are representative of U.S. combat veterans. As discussed above, some veterans described what they perceived to be civilian disinterest in their war experiences, and — by extension — their losses, and how they had conditioned themselves to stay silent. Thus, those who were willing to participate may be among the minority of veterans who are willing to break that silence.

Future Directions

Not only does this study yield rich narratives from veterans describing how they

experienced their comrades' deaths, it provides a foundation upon which we can build future studies of grief in combat veterans. The emerging themes of moral injury and sense of purpose represent important lines of future inquiry. Future studies can seek to understand the role of moral injury in the grief response. How much is veteran grief a response to losing a comrade, and how much is the grief over a veteran's own moral identity? What is the role of moral injury in suicidal ideation? Some veterans speculated that it was one of the predictors of their own comrade's suicidal ideation. As with moral injury, the role of a sense of purpose in veterans' successful post-deployment re-integration should be examined. A study conducting semi-structured interviews with the aim of pursuing veterans' perspectives on both themes has the potential to yield additional greater insight into not only grief, but into suicidal ideation as well.

FIGURES

Figure 2.1: Map of networks of interview participants

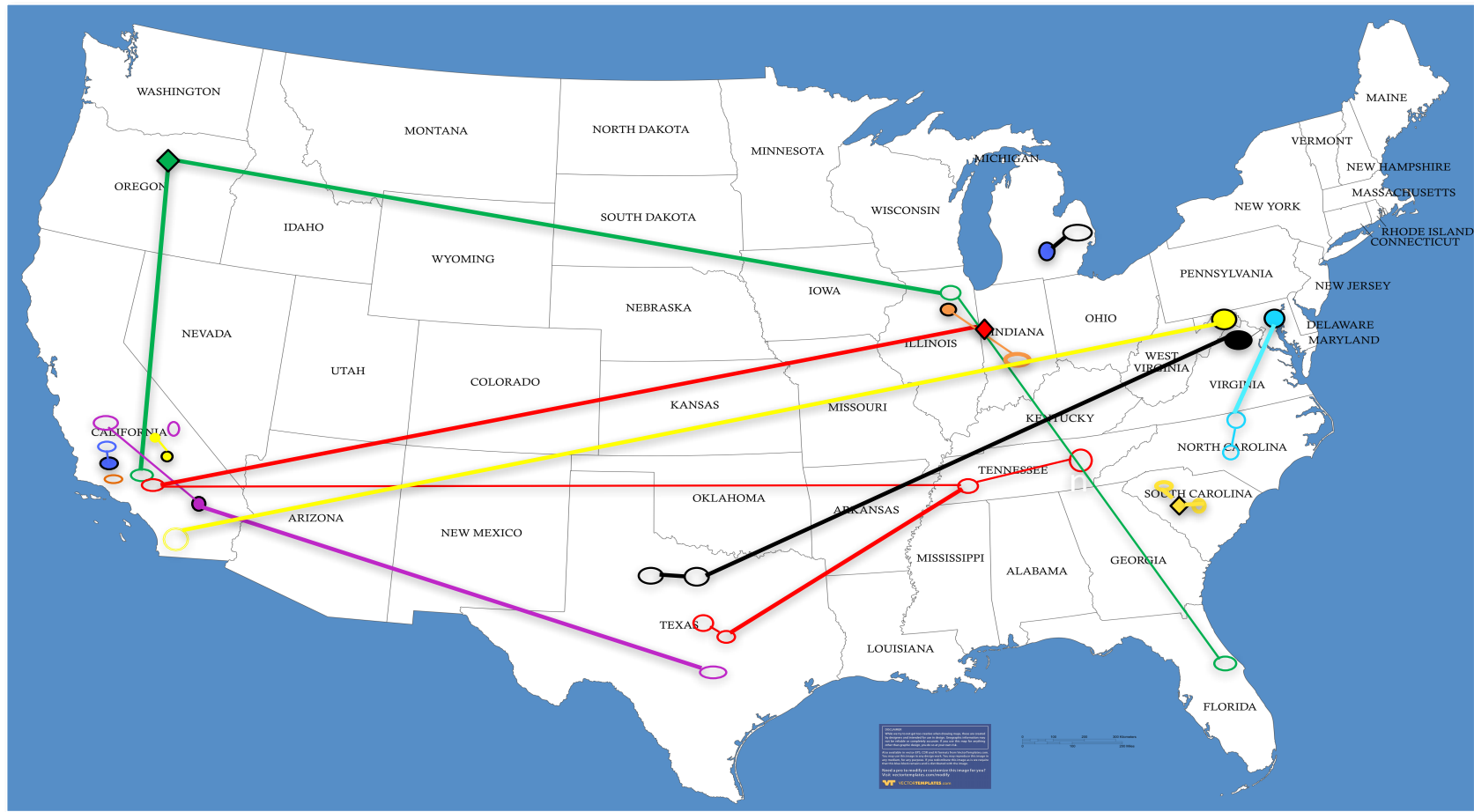


Figure 2.2: Stages of qualitative text analysis

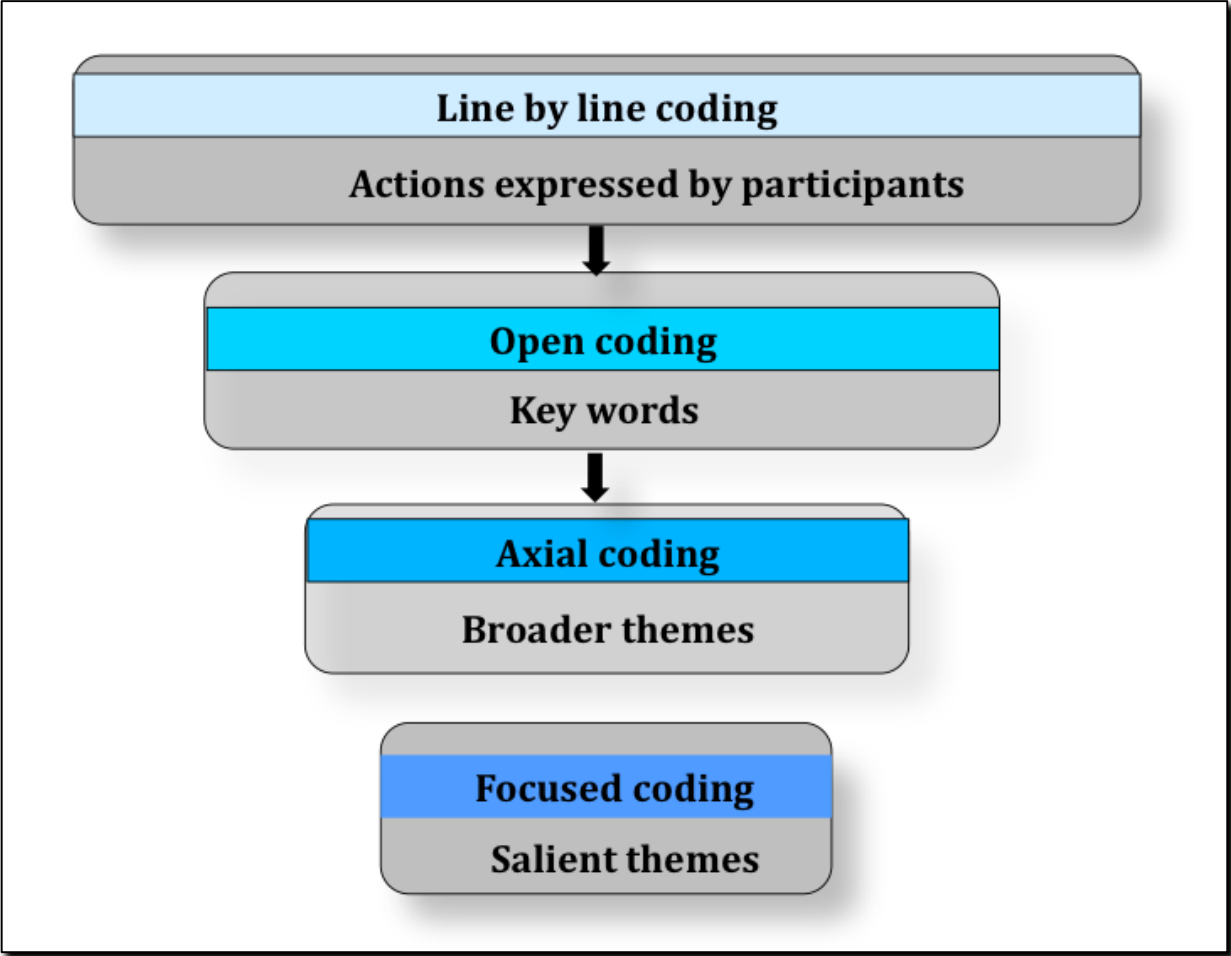
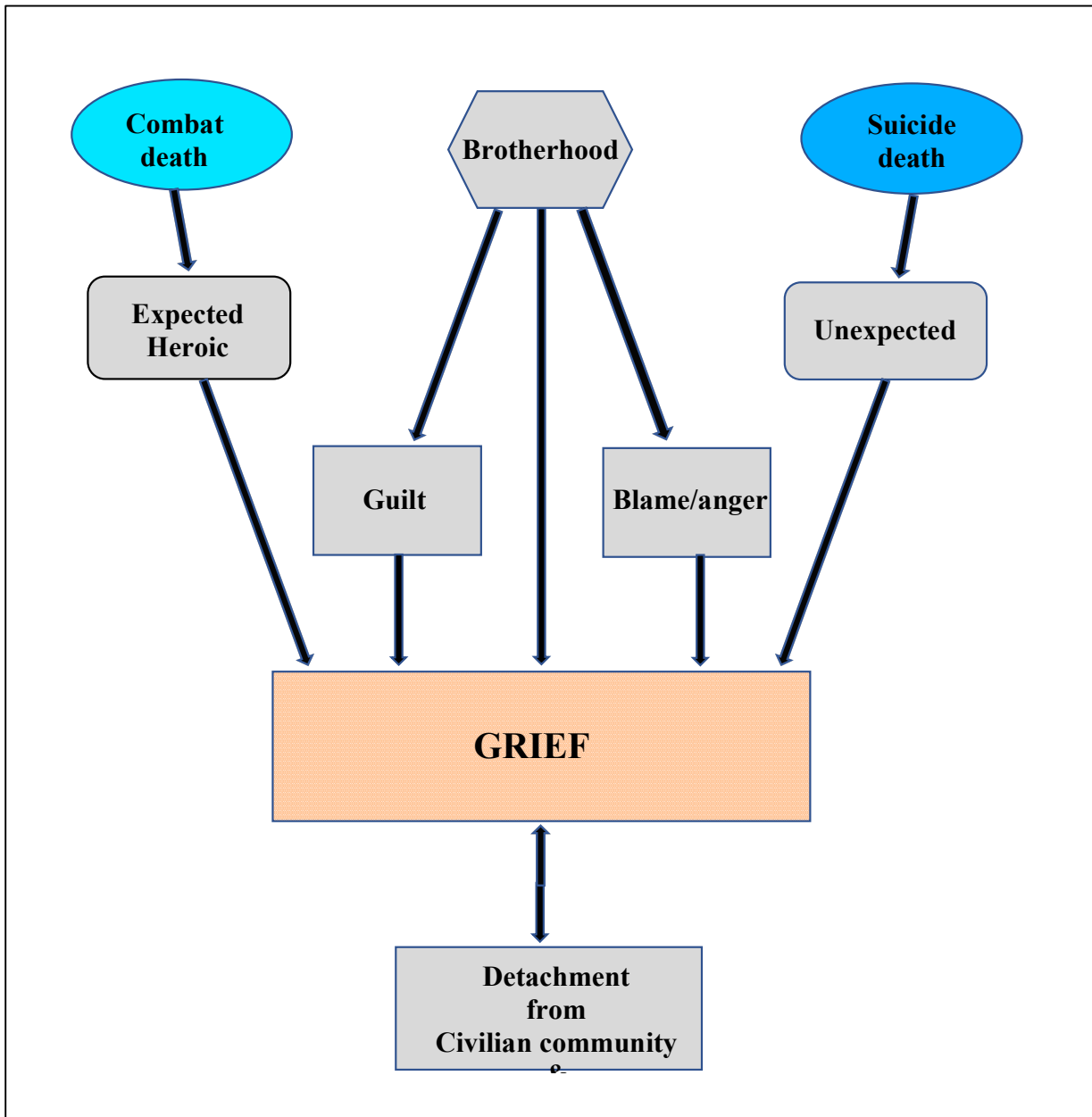


Figure 2.3: Conceptual model of qualitative themes



APPENDIX 2A: Interview guide

1. Please describe your military career.

- *Probes*
 - A. When joined?
 - B. Describe decision to volunteer.
 - C. Describe training.

2. Please tell me about your combat deployments.

- *Probes*
 - A. *If more than one:* Describe the differences between your combat deployments
 - i. Ask to provide specific examples
 - ii. Please compare what you expected the combat experience to be compared to what it was actually like.
 - B. *If not more than one deployment just ask:* Please compare what you expected the combat experience to be compared to what it was actually like.

3. Please tell me about your relationships with other members of your unit with whom you served

- *Probes*
 - A. Tell me about the guys to whom you were closest
 - B. Describe what it is about those guys who bonded you with them

4. Please describe in as much detail as possible your most memorable deployment experiences.

- *Probes*
 - A. Tell me where.
 - B. Tell me when,
 - C. Describe what you saw?
 - D. Describe what you heard?

5. The military has sustained a high number of losses during the war, including both in combat and by suicide. Please tell me about anyone you served with who died and describe how that experience felt.

- *Probes*
 - A. Probe for details if the veteran doesn't provide many, asking him to tell where, where, how
 - B. Ask him to describe how he responded when the person/persons died
 - C. Ask to compare or contrast his responses to the two different kinds of losses.

6. Please describe your return home from your deployments

- *Probes*
 - A. Tell me about the people who greeted you when you came home.

B. Describe what people said to you.

7. Tell me about the people you turn to most for emotional support.

8. Is there anything else you would like to talk about that I didn't ask you about?

References

- Bailey, S. E., Kral, M. J., & Dunham, K. (1999). Survivors of suicide do grieve differently: Empirical support for a common-sense proposition. *Suicide and Life-Threatening Behavior, 29*(3), 256–271. <https://doi.org/10.1111/j.1943-278X.1999.tb00301.x>
- Biernacki, P., & Waldorf, D. (1981). Snowball sampling: Problems and techniques of chain referral sampling. *Sociological Methods & Research, 10*(2), 141–163.
- Creswell, J. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Currier, J. M., & Holland, J. M. (2012). Examining the role of combat loss among Vietnam War veterans. *Journal of Traumatic Stress, 25*(1), 102–105. <https://doi.org/10.1002/jts.21655>
- Gillies, J., & Neimeyer, R. A. (2006). Loss, grief, and the search for significance: Toward a model of meaning reconstruction in bereavement. *Journal of Constructivist Psychology, 19*(1), 31–65. <https://doi.org/10.1080/10720530500311182>
- Heckathorn, D. D. (2011). Comment: Snowball versus respondent-driven sampling. *Sociological Methodology, 41*(1), 355–366.
- Iraq and Afghanistan Veterans of America. (2017). IAVA 2017 Annual Member Survey. Retrieved October 29, 2017, from https://iava.org/wp-content/uploads/2016/05/IAVA_Survey_2017_v11update.pdf
- Kalton, G., & Anderson, D. W. (1986). Sampling rare populations. *Journal of the Royal Statistical Society. Series A (General), 65*–82.
- Larkin, M., & Thompson, A. R. (2011). Interpretative phenomenological analysis in mental health and psychotherapy research. In D. Harper & A. R. Thompson (Eds.), *Qualitative*

research methods in mental health and psychotherapy (pp. 99–116). West Sussex, United Kingdom: Wiley-Blackwell. <https://doi.org/10.1002/9781119973249.ch8>

Litz, B. T., Stein, N., Delaney, E., Lebowitz, L., Nash, W. P., Silva, C., & Maguen, S. (2009). Moral injury and moral repair in war veterans: A preliminary model and intervention strategy. *Clinical Psychology Review, 29*(8), 695–706. <https://doi.org/10.1016/j.cpr.2009.07.003>

Maercker, A., Bonanno, G.A., Znoj, H., & Horowitz, M.J. (1998). Prediction of complicated grief by positive and negative themes in narratives. *Journal of Clinical Psychology, 54*(8), 1117–1136. [https://doi.org/10.1002/\(SICI\)1097-4679\(199812\)54:8<1117::AID-JCLP11>3.0.CO;2-5](https://doi.org/10.1002/(SICI)1097-4679(199812)54:8<1117::AID-JCLP11>3.0.CO;2-5)

Sveen, C. A., & Walby, F. A. (2008). Suicide survivors' mental health and grief reactions: A systematic review of controlled studies. *Suicide and Life-Threatening Behavior, 38*(1), 13–29. <https://doi.org/10.1521/suli.2008.38.1.13>

CHAPTER 3

Predictors of Grief in Combat Veterans Who Have Lost Comrades to Combat or Suicide

Background

Although there is little research that has focused on grief in combat veterans over loss of comrades, we know from research in the civilian community that responses vary based on the circumstances or mode of death (e.g. suicide, homicide, accidental, and illness-related; Miles & Demi, 1992; Murphy, Johnson, Wu, Fan, & Lohan, 2003; Wortman & Silver, 1989). Moreover, the civilian grief literature identifies the influence of social support on grief, suggesting that the quality (Hibberd, Elwood, & Galovski, 2010), strength, density, and homogeneity of a social network may contribute to the quality of social support for grieving individuals (Burke, Neimeyer, & McDevitt-Murphy, 2010; Kreichbergs, Lannen, Onelov, & Wolfe, 2007; Walker, MacBride, & Vachon, 1977). In addition, the degree of closeness to the deceased predicts the level of both past and present grief response (Servaty-Seib & Pistole, 2007). It is reasonable to assume that the same may be true for a veteran who has lost comrades. Unit cohesion in the military is comparable to civilian social cohesion. Siebold (2007) describes a “primary” level of cohesion among members of a combat unit as “trust among group members (e.g., to watch each other’s back), together with the capacity for teamwork (e.g., pulling together to get the task or job done) ...” (p. 288). Unit cohesion can be seen as a primary attachment akin to family or close social network ties and can also be protective against suicidal ideation (Mitchell, Gallaway, Millikan, & Bell, 2012).

Other factors have been found to be associated with responses to trauma in veterans. Military health research has found a consistent association between combat exposure and posttraumatic stress symptoms (PTSS) (Lubens & Bruckner, 2018; Xue et al., 2015). However, we might inquire if combat exposure and the experiences during combat are also predictors of grief, particularly if a service member or veteran’s combat experience included comrades dying.

In addition to combat exposure, prior adverse life events have also been found to be predictors of PTSD. For example, a prior history of being the victim of violent or sexual assault was found to predict PTSD in service members who had served in Afghanistan or Iraq (Smith et al., 2008). Moreover, a study of Vietnam Veterans found that those who were diagnosed with PTSD had suffered higher rates of abuse during childhood compared to those who were not diagnosed with PTSD (Bremner, Southwick, Johnson, Yehuda, & Charney, 1993). Although, as stated previously, little research has focused on grief in veterans, studies that have found an association between prior adverse life events and PTSD may inform an inquiry into the predictors of veterans' grief.

Finally, anger has been found to be both a symptom of grief (Carr, 2008) and a predictor of grief. A study of bereaved older adults found that anger was higher in participants who blamed poor hospital care or poor physician care for their spouse's death (Carr, 2008). Research about anger among veterans has focused on its relationship with PTSD and with combat exposure. A cross sectional study of Reserve and National Guard members found that PTSD symptom severity was predicted by the level of anger they reported (Worthen et al., 2014). Additional research found that veterans' PTSD symptomology is associated with anger (Jakupcak et al., 2007), and that combat exposure is associated with anger, as a distinct outcome from PTSD (Maguen et al., 2010; Novaco, Swanson, Gonzalez, Gahm, & Reger, 2012). In light of this prior research, anger may also be explored as a predictor of grief in veterans.

The Present Study

Informed by prior research in the civilian community, the primary goal of this study was to ascertain if grief responses in combat veterans are associated with how their comrade died — in combat or by suicide — and if their level of unit cohesion predicted their level of grief. The

study's secondary goal was to ascertain if other variables (e.g., combat exposure, anger, closeness to the deceased) predict the level of grief among veterans who lost comrades in combat or to suicide.

Specific Aims

Specific Aim 1. This study sought to ascertain if there is a difference in the level of grief associated with death of a comrade by suicide compared to death of a comrade by combat.

Specific Aim 2. The study's second aim was to ascertain if the level of grief in combat veterans is associated with their reported level of unit cohesion.

Specific Aim 3. The third aim was to ascertain if other factors (combat exposure, anger, past life events, past PTSD diagnosis, past depression diagnosis, social support, total number of comrades who died, having lost comrades to both suicide and combat) are predictors of the level of grief among combat veterans.

All procedures for this study were approved by the Institutional Review Board of the University of California, Irvine.

Methods

Recruitment

Combat veterans who had completed the face-to-face interviews for the qualitative component describe in Chapter 2 were also asked to complete an anonymous and confidential online survey. In addition, in an effort to continue the snowball sampling that was used to recruit the interview participants, the veterans who were interviewed were also asked to disseminate to other combat veterans the following IRB-approved recruitment message (specifying the bold font formatting):

Combat Veterans:

You are invited to participate in an **anonymous survey** of combat veterans who have served in Iraq or Afghanistan. The online survey, which takes 15-20 minutes to complete, is being conducted by researchers from the University of California, Irvine who are studying the experiences of **OIF and OEF combat vets who have lost military comrades to combat or suicide**. The participation of a large number of vets will help raise awareness of veterans' issues that have not yet been adequately addressed. After completing the survey, you will be given the opportunity to enter a drawing for one of two **\$250 Amazon gift cards**.

The message included a link to the survey.

In addition to recruiting participants through veterans who had been interviewed, several other conduits for dissemination of the recruitment message were pursued. Thirty Veterans' services offices on college and university campuses were contacted based on their high ranking as veteran-serving institutions or based on their proximity to the homes of veterans who were interviewed for the qualitative study. Thirty-seven percent of the veterans' services offices agreed to disseminate the recruitment message: Perimeter College (Decatur, Georgia), Jackson State University (Jackson, Mississippi), Appalachian State University (Boone, North Carolina), Nashville State Community College (Nashville, Tennessee), Wright State University (Dayton, Ohio), Texas A&M (College Station, TX), Texas Tech University (Lubbock, Texas), San Diego State University (San Diego, CA), Long Beach City College (Long Beach, CA), and University of California, Irvine (Irvine, CA). Administrators of 11 state or regional chapters of Iraq and Afghanistan of America (IAVA) Facebook pages were also contacted about posting the recruitment message. Four administrators — in San Diego and San Francisco, California; Eastern Michigan, and Connecticut — agreed to do so. In addition, the message and survey link was disseminated by the director of Hidden Wounds — a peer-to-peer veteran's non-profit in South Carolina — who had participated in an interview.

Data Collection Procedures

The survey was administered online via Qualtrics. See Appendix 3A at the end of this chapter for a copy of the survey. The veterans who had completed the face-to-face interview were given a unique four-digit code so that their responses could eventually be linked to their survey responses for future planned analysis exploring if the content of their interviews is associated with outcomes in the survey. Responses from the remaining participants were anonymous. Veterans who completed the online survey were directed to an external link where they could enter a drawing for one of two \$250 Amazon gift cards by registering their email address. Use of an external link — rather than requesting their email address as part of the survey — ensured that any of their identifiable information could not be tied to their survey responses. In addition, upon submission of the survey, veterans were automatically sent to a page that provided them with a list of mental health counselling resources, in the event that they needed referrals after completing the questionnaire.

Survey Measures

The survey included measures of grief, combat exposure, unit cohesion, anger, Posttraumatic Stress symptoms (PTSS), past PTSD and Depression diagnoses, pre-deployment life events, and sources of social support and conflict, as well as questions about the participant's military history, how many comrades they had lost to combat or suicide, how many times they had been combat-deployed, and demographic information (e.g., gender, education, age, race, ethnicity, religion, and marital status).

Grief. The level of grief was measured using 12 of the 13 items from the Texas Revised Inventory of Grief (TRIG) - Present Module (Faschingbauer, Zisook, & DeVaul, 1987), which asks respondents to rate on a 5-point Likert scale statements describing responses to or thoughts about someone's death (1= *completely false*; 5 = *completely true*). The TRIG items include

statements including: “I still cry when I think of the person who died,” “I cannot accept this person's death,” “I am preoccupied with thoughts (often think) about the person who died,” and “Things and people around me still remind me of the person who died.” Participants were asked to think about “one particular” deceased comrade while responding to the items. Level of grief was the sum of participants’ responses to the TRIG items ($\alpha=.93$). In addition, based on prior literature (Futterman, Holland, Brown, Thompson, & Gallagher-Thompson, 2010), a modified version of a “non-acceptance” of grief subscale from the TRIG ($\alpha = .89$) was used as an outcome and the items were summed.

Time, mode of death, and closeness to the deceased. Prior to responding to the TRIG items participants were asked to indicate: 1) If the comrade about whom they were responding to the measure’s items died in combat or by suicide; 2) What year that person died; 3) How close they were to the deceased — rated on a 5-point Likert scale (0 = *Not close at all* ; 4 = *Best friends*).

Combat exposure. Combat exposure was assessed using 14 items from the combat experiences measure used in the Army Study to Assess Risk and Resilience in Service members (Army STARRS) (Ursano et al., 2014). The measure asks participants to indicate how many times they had specific experiences (0, 1, 2-4, 5-9, 10 or more) while serving in combat. Items in the measure included statements such as: “Go on combat patrols or have other dangerous duty (e.g., clearing buildings, disarming civilians, working in areas that had IEDs),” “Have member(s) of your unit who were seriously wounded or killed,” and “Witness violence within the local population or mistreatment toward non-combatants” ($\alpha = .83$). Combat exposure was the sum of the responses to the items.

Unit cohesion. Unit cohesion was measured using the Unit Social Support Scale from the

Deployment Risk and Resilience Inventory-2 (DRRI-2) (Vogt & Smith, 2013). The 5-item measure asks participants to rate on a 5-point Likert scale how much they agree (1= *strongly disagree*; 5 = *strongly agree*) with statements such as: “My unit was like family to me,” “I felt valued by my fellow unit members,” and “My fellow unit members were interested in what I thought and how I felt about things” ($\alpha = .93$). Unit cohesion was a sum of the responses.

Anger. Anger was assessed using the six-item Dimension of Anger Reactions (DAR) measure, specifically designed to measure anger in veterans (Novaco, 1975). The measure asks respondents to rate on a 5-point Likert scale the degree to which statements describe their anger-related feelings or behavior (1= *not at all*; 5 = *very much*). Items include “I often find myself getting angry at people or situations,” “My anger interferes with my ability to get my work done,” and “My anger has a bad effect on my health.” Level of anger was the sum of responses to the DAR items ($\alpha = .91$).

Posttraumatic Stress symptoms. Posttraumatic Stress Symptomology (PTSS) was measured using the PTSD Checklist for DSM-5 (PCL-5) (Weathers et al., 2018), revised to specify military traumatic experiences. Respondents are asked to rate on a 5-point Likert scale “how much” (1 = *not at all*; 5= *extremely*) in the past month they had a list of responses to past military experiences, such as “Repeated, disturbing, and unwanted memories of a stressful military experience,” “Trouble remembering important parts of a stressful military experience,” “Having strong negative feelings such as fear, horror, anger, guilt, or shame,” and “Feeling jumpy or easily startled.” Responses to the PCL-5 were summed ($\alpha = .96$).

Past PTSD and Depression diagnoses. The survey asked veterans to indicate “yes” or “no” in response to a question asking: “if a psychologist or physician has diagnosed” them with PTSD or Depression, and in what year they were diagnosed.

Pre-deployment life events. Using the Pre-deployment Life Events scale from the DRRI-2 (Vogt & Smith, 2013), participants were asked to select “yes” or “no” in response to a list of 14 events that may have happened to them in their lifetime before they enlisted in the military. Examples of those events include: “I went through a divorce or was left by a significant other,” “I experienced unwanted sexual activity as a result of force, threat of harm, or manipulation during adulthood (age 18 OR LATER),” and “I experienced serious physical or mental health problems.” (Responses to the items were summed to create a pre-deployment life events measure,

Social support and conflict. Participants were asked about their recent sources of social support and conflict. Respondents are asked to rate on a 5-point Likert scale how often in the past week (0 = *not at all*; 5= *All the time*) they received encouragement and understanding from a romantic partner or spouse, family, a close friend or another veteran. They could also indicate that the questions “did not apply.” In addition, they were asked to indicate using the same 5-point Likert scale how often in the past week they had been become “openly angry” or had had a disagreement with a romantic partner or spouse, family, a close friend or another veteran. Variables were created that summed the level of encouragement, understanding, anger and disagreement with all the relationship categories in the past week.

Data Analyses

Statistical analyses were conducted with STATA 14.2. To be parsimonious in building multiple regression models, initial bivariate analyses were conducted to ascertain which factors were statistically significant predictors of the main outcome of interest: grief.

Bivariate analyses. Variables that were tested in bivariate models to see if they were predictors of grief were: mode of death, combat exposure, how close they were to the person

about whom they answered the grief questions, anger, unit cohesion, total number of comrades lost, having lost comrades to both combat and suicide, the time that had elapsed since the comrade died, pre-deployment life events, having a past PTSD diagnosis, having a past Depression diagnosis, and demographic variables (gender, age, race/ethnicity, education, and income). Significant predictors in the bivariate analyses were: combat exposure, how close they were to the person about whom they answered the grief measure items, anger, total number of comrades lost, having lost comrades to both combat and suicide, pre-deployment life events, having a past PTSD diagnosis, having a past Depression diagnosis, and education. See Table 3.1 for bivariate analysis results.

Multiple regression analyses. The initial multiple regressions models included those significant predictors and gender, because it is theoretically associated with grief (Stroebe & Schut, 2001). Because of collinearity, having lost friends to combat and having lost friends to suicide were not included in the same models. The final multiple regression model included only those variables that were statistically significant in the initial multiple regression models. In the model in which the level of grief was the outcome, the predictors were combat exposure, closeness, anger, past PTSD diagnosis, past Depression diagnosis, and gender. In the model in which the non-acceptance grief subscale was the outcome, the predictors were mode of death, combat exposure, closeness to the deceased, past PTSD diagnosis, and gender.

After the previously described analyses of the predictors of grief indicated that combat exposure was a predictor of grief, and in light of ample research that suggests that combat exposure is also a predictor of PTSS (Lubens & Bruckner), additional analyses were conducted to compare the strength of the association between combat exposure and grief to the strength of the association between combat exposure and PTSS. Two series of bivariate regressions of the

standardized variables were conducted —one for predictors of grief and one for predictors of PTSS. Only those covariates that were significantly associated with both outcomes and were not highly correlated with the outcome (e.g., anger and PTSS) were included in the two final multiple regression models — closeness and education — along with gender, which was theoretically associated with both outcomes (Luxton, Skopp, & Maguen, 2010; Stroebe & Schut, 2001). All continuous variables (combat exposure and closeness) in the multiple regression models were standardized, while binary and categorical variables (gender and education) were not standardized.

Results

Sample Population

Exclusions. Respondents were excluded if they indicated that had no combat exposure (n=2), they did not answer any of the TRIG items (n=13), or they indicated that they had not lost any comrades to combat *or* suicide (n=10).

Demographic information. The sample (N=186) was ethnically diverse: White (63.7%), Hispanic (15.1%), African American (2.8%), Multi-ethnic/racial (8.4%), Asian (5.0%), Native American or Alaska Native (1.7%), and “other” (3.4%). Most were male (88.3%) and 59.5% had graduated from a University or had a post-University education. For religious preference 34.5 % selected Protestant, 11.9% selected Catholic; and Atheist and Agnostic were each selected by 10.7% of participants. The majority of respondents (59.9%) said they were married, while 20.1% indicated they were divorced or separated and 22.9% indicated they had never been married.

The ethnic and racial makeup of the study population was similar the OEF/OEF veteran population. See Table 3.2 for comparison of the study population and the OEF/OEF veteran population.

The study's population included residents of 35 states (see Figure 3.1), had a mean age of 36.7 (ranging from 24 to 70), had enlisted in the military on average at age 20, and had an average of 2.29 combat deployments. Participants represented most military branches: Army (37.4%), Marines (26.7%), Army National Guard (11.8%), Army Reserves (5.9%), Navy (5.4%), and Air Force (3.2%). Fewer than 2% were in either the Naval Reserves or Marine Reserves and 7.5% had served in multiple branches.

Deployment history and loss. On average participants in the survey had been combat deployed 2.3 times. Almost 72% of all survey participants had lost comrades to both combat and suicide; 67% of those who participated only in the survey (but not the interview) had lost comrades to both combat and suicide. Men who participated lost on average a total of 10 comrades and women lost on average a total of six. Nearly 87% of all participants had lost at least one comrade in combat; 82% had lost at least one comrade to suicide.

Combat exposure and combat

The combat exposure scores ranged from 0 to 41. The higher participants scored on the combat exposure measure, the more comrades they had lost on average in combat. Those who scored between 0 and 14 (n=25) had lost an average of 2.6 comrades in combat. Those had scored between 14 and 28 (n=96), had lost an average of 6.0 comrades in combat and those who scored between 28 and 42 (n=43), had lost an average of 11.5 comrades in combat.

Past PTSD and depression diagnoses. More than half of all survey participants (57.4%) had been diagnosed with PTSD in the past and 43.3% with Depression. Of the veterans who had participated in the interviews and who also took the survey (n=26), 80.8% had been diagnosed with PTSD in the past and 64% with Depression.

Social support and conflict. Other veterans were the most common source of social support for survey participants. The greatest percentage of survey participants indicated they received encouragement and understanding “in the past week” often or all the time from another veteran (50.56% and 47.78%, respectively). On the other hand, the largest percentage of participants indicated that a partner or spouse were the most common source of social conflict for participants. The largest percentage indicated they had been angry or had had a disagreement “in the past week” often or all the time with a partner or spouse (31.11% and 43.34%, respectively). See Table 3.3 for details about social support and negative interaction.

Grief

The mean level of grief for all study participants was 32.15 (SD=12.02), ranging from 12 to 60 (out of a possible maximum of 60). For veterans who were interviewed and also completed the survey, the mean level of grief was 35.28 (SD=9.27), ranging from 17 to 53.

There was no significant difference between males and females in the average level of grief. Moreover, the variance within the males and females was not significantly different.

The total level of grief was predicted by greater combat exposure, greater closeness with the comrade who died, higher anger, prior diagnosis of PTSD or depression, and female gender (see Table 3.4 for unstandardized and standardized results). Although neither the mode of death or unit cohesion were significantly associated with the level of grief, the mode of death moderated the association between unit cohesion and the level of grief at lower levels of unit cohesion (see Figure 3.2). When losing a comrade in combat, unit cohesion was positively associated with the level of grief. When losing a friend to suicide, unit cohesion was negatively associated with the level of grief.

In addition, increased non-acceptance of a death was associated with having lost a comrade to suicide, being closer to the deceased, having more combat exposure, and being male (see Table 3.5 for unstandardized and standardized result).

Comparing Combat Exposure as a Predictor of Grief and PTSS

Multiple regression analyses results found that the strength of the association between combat exposure and grief nearly equal to the strength of the association between combat exposure and PTSS, controlling for how close a veteran reported being to the deceased, level of education, and gender. All control variables were significant (see Table 3.7). Although combat exposure was an equally strong predictor of both grief and PTSS, closeness to the deceased was the strongest predictor of grief, while combat exposure was the strongest predictor of PTSS.

Discussion

The results of this study elucidate important predictors of grief in combat veterans. The study's findings that the level of acceptance differed by mode of death and that the mode of death moderated the association between unit cohesion and grief illustrate the complexity of grief responses. Results also correspond to grief research in the civilian community that has found that both mode of death (Bailey, Kral, & Dunham, 1999) and strength of social networks (Burke, Neimeyer, & McDevitt-Murphy, 2010; Kreichbergs, Lannen, Onelov, & Wolfe, 2007) play an important role in bereavement response.

Although gender was not significantly associated with grief in a bivariate regression, it was included in the multiple regression model based on its theoretical association with grief, and was statistically significant in the multiple regression model. This change in its statistical significance was likely due to a suppressor effect, and it is possible that gender was significant in

the multiple regression model because of its marginally significant interaction with closeness ($p = .053$). Further research might investigate the association of gender and grief in combat veterans.

Finally, although combat exposure is a well-studied risk factor for PTSS (Lubens & Bruckner, 2018; Xue et al., 2015), this study's finding that combat exposure may be almost an equally strong risk for grief as it is for PTSS contributes a largely unexamined and important element to our knowledge about the toll of combat exposure. It is possible that the association of combat exposure with grief is driven in part by the relationship between combat exposure and loss. As the survey results indicated, the more combat respondents had experienced, the more comrades on average they had lost in battle. On the other hand, it is also possible that the relationship between combat exposure and PTSS is also driven by loss, or bereavement over loss. This result suggests that the research and clinical focus on PTSD and other mental health outcomes in combat veterans—with scant attention paid to grief over loss of comrades—represents a significant oversight as scholars and clinicians continue to seek to understand and heal the wounds of war. This study's ability to identify predictors of grief in combat veterans is also important because, not only do we know that grief has been associated with adverse physical health outcomes (Stroebe, Schut, & Stroebe, 2007), but research has also linked grief to suicidal ideation (Prigerson et al., 1999; Stroebe, Stroebe, & Abakoumkin, 2005). In light of the fact that the majority of participants in the 2017 IAVA survey knew a veteran who had died by suicide or had attempted suicide (Iraq and Afghanistan Veterans of America, 2017), an understanding of grief responses in veterans should receive a greater priority than it has so far.

Strengths and Limitations

In addition to apparently being the first study to focus on suicide loss and combat loss in veterans and to seek to ascertain if the mode of death is associated with grief in combat veterans,

the strength of this study was its geographic diversity, with veterans from more than 30 U.S. states participating in the survey. In addition, despite the use of convenience and non-systematic sampling, the ethnic and racial composition of the survey population was similar to the ethnic and racial composition of the post-9/11 veteran population.

Despite its strengths, there were several limitations to this study. The primary limitations are the small sample size (N=186) and the lack of a systematic recruitment strategy. Recruitment through social media and through veteran's services offices on college campuses limits the study population to those who are active enough in the IAVA to visit chapter Facebook pages, or who are college students who access the campus veterans' service offices. Thus, the sample was a convenience sample, recruited through multiple methods but not likely a representative sample of combat veterans. This recruitment strategy also impeded the ability to calculate a participation rate. Although the response rate for the veterans' services offices and IAVA chapters willing to disseminate the recruitment message was calculated (37% and 36.4% respectively), the lack of data about how many veterans received the messages from those sources prevents calculation of a response rate for the study sample. Finally, the small number of female veterans is likely to have biased the results as well, although the percentage of females in this study population of 12.7 percent is larger than the 9.4% that the Department of Veterans Affairs reports was the percentage of female veterans in 2015 (National Center for Veterans Analysis and Statistics, 2017). Finally, veterans were asked to report if a psychologist or physician had ever diagnosed them with PTSD or Depression. However, we do not have any additional details about their history of treatment for either disorder. Additional details about treatment would allow for a finer analysis of the association of PTSD and depression with grief, and elucidate if treatment history or treatment status might mediate the association.

Future Directions

The results of this study prompt future inquiry into grief over comrade loss. A larger sample, recruited more systematically with an expanded inclusion criteria that includes all veterans who have deployed to war — whether in combat roles or support roles— will tell us more about veteran grief and will allow for a comparison of grief responses according to job and proximity to the battles. Moreover, because past research suggests that grief is a risk for suicidal ideation (Prigerson et al., 1999; Stroebe, Stroebe, & Abakoumkin, 2005), future research seek to ascertain if grief over loss of comrades is contributing to the increased rate of veterans' suicides.

In addition, in the future in light of the fact that Depression and grief are often correlated in clinical practice, future research should examine the association of loss of comrade and Depression in combat veterans.

Tables and Figures

Table 3.1: Bivariate regression results for predictors of grief ¹

Variable	<i>b</i>	SE	<i>t</i>	<i>β</i>
Mode of death (n=171) ²	0.45	1.93	2.57	0.02
Combat exposure (n=167)	0.62***	0.09	6.81	0.47
Closeness (n=170)	5.62	0.70	8.11	0.53
Anger (n=169)	1.00***	0.12	8.55	0.55
Unit cohesion (n=172)	-0.08	0.18	-0.50	-0.04
Total comrades lost (n=168)	0.34***	0.09	3.68	0.27
Lost comrades to both modes ³	9.43***	1.92	4.92	0.35
Time since death (n=159)	-0.07	0.18	-0.37	-0.03
Pre-deployment life events (n=173)	0.88*	0.35	2.49	0.19
Past PTSD (n=171) ⁴	11.72***	1.64	7.14	0.48
Past Depression diagnosis (n=168) ⁵	9.93***	1.69	5.88	0.42
Gender (n=172) ⁶	-1.94	2.80	-0.69	-0.05
Age (n=169)	0.14	0.11	1.32	0.10
Race/Ethnicity (n=171) ⁷	0.52	0.51	0.31	0.08
Education (n=171) ⁸	-1.97*	0.89	-2.22	-0.17
Income (n=169)	-0.19	0.20	-0.96	-0.07

¹ Sample sizes vary because of missing data

² Mode of death coded 0=Combat, 1=Suicide

³ Lost comrades to both combat and suicide coded 0=No 1=Yes

⁴ Past PTSD diagnosis coded 0 = No, 1 = Yes

⁵ Past Depression diagnosis coded 0 = No, 1 = yes

⁶ Gender coded 0 = female, 1 = male

⁷ Reference group is White (non-Hispanic)

⁸ Reference group is less than High School

p*<.05 *p*<.01 ****p*<.001

Figure 3.1: Map of survey participant locations

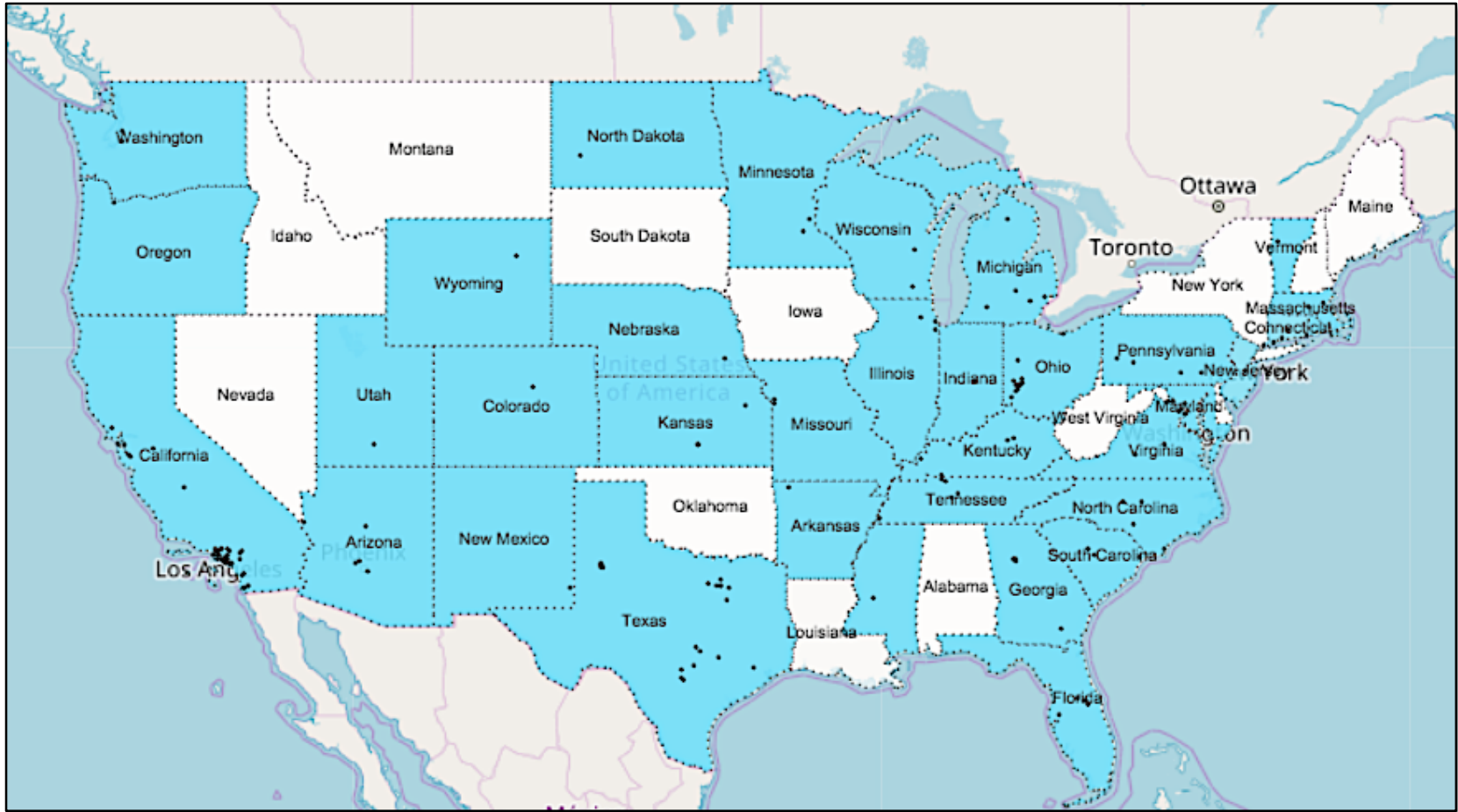


Table 3.2: Study population and OEF/OIF veteran race and ethnicity

Study population		OEF/OIF veterans ^{1,2}	
	%		%
Males	88.3	Males	90.6
White (Non-Hispanic)	65.2	White (Non-Hispanic)	67.5
Hispanic or Latino	15.2	Hispanic or Latino	12.0
African American or Black	1.3	Non-white (non-Hispanic)	20.5
Asian	5.7		
Multi	8.2		
Native American or Alaska Native	1.3		
Other	3.2		
Females	11.7	Females	9.4
White (Non-Hispanic)	55.0	White (Non-Hispanic)	55.0
Hispanic or Latino	10.0	Hispanic or Latino	11.8
African American or Black	15.0	Non-white (non-Hispanic)	33.2
Asian	0.0		
Multi	2.0		
Native American or Alaska Native	1.0		
Other	1.0		

¹ Data source: National Center for Veterans Analysis and Statistics, 2016 data² Data do not include more details beyond non-white, non-Hispanic veterans

Table 3.3: Social support and social conflict (n=180) ¹

		Encouragement		Understanding		Angry		Disagreement		
		%	n	%	n	%	n	%	n	
From a veteran						With a veteran				
	Never	2.22	4	3.89	7	Never	5.06	9	5.65	10
	Rarely	16.67	30	18.89	34	Rarely	62.36	111	53.67	95
	Sometimes	9.44	17	13.33	24	Sometimes	19.10	34	20.90	37
	Often	30.56	55	26.11	47	Often	9.55	17	15.82	28
	All the time	20.00	36	21.67	39	All the time	2.25	4	2.26	4
From a partner or spouse						With a partner or spouse				
	Never	11.67	21	11.73	21	Never	11.11	20	11.67	21
	Rarely	10.00	18	10.61	19	Rarely	28.33	51	12.22	22
	Sometimes	7.22	13	7.82	14	Sometimes	22.78	41	25.56	46
	Often	11.11	20	20.67	37	Often	19.44	35	25.56	46
	All the time	21.67	39	22.91	41	All the time	11.67	21	17.78	32
From family						With family				
	Never	3.89	7	5.59	10	Never	4.47	8	5.03	9
	Rarely	16.11	29	22.91	41	Rarely	46.93	84	35.75	64
	Sometimes	12.78	23	23.46	42	Sometimes	21.23	38	27.37	49
	Often	23.33	42	21.23	38	Often	16.76	30	16.76	30
	All the time	22.22	40	17.88	16	All the time	6.15	11	7.82	14
From a friend						With a friend				
	Never	4.44	8	6.74	12	Never	5.56	10	5.71	10
	Rarely	16.11	29	19.10	34	Rarely	57.78	104	46.29	81
	Sometimes	14.44	26	21.35	38	Sometimes	25.00	45	26.86	47
	Often	26.11	47	27.53	49	Often	9.44	17	14.86	26
	All the time	21.67	39	14.04	25	All the time	0.56	1	5.14	9

¹ The remainder of respondents said the category of support or conflict did not apply to them

Table 3.4: Predictors of grief

Variable	Model 1 (n=160)			Model 2 (n=156)			Model 3 (n=155)		
	Unstandardized coefficient	Standardized		Unstandardized coefficient	Standardized		Unstandardized coefficient	Standardized	
	<i>b</i> (95% CI)	<i>t</i>	β	<i>b</i> (95% CI)	<i>t</i>	β	<i>b</i> (95% CI)	<i>t</i>	β
Combat exposure	0.19 (0.02,0.35)*	2.57	0.14	0.15 (-0.00,0.31)	1.97	0.12	0.21 (0.05,0.37)*	2.57	0.16
Closeness	4.2 (2.9,5.5)***	6.57	0.40	3.9 (2.66,5.04)***	6.40	0.37	3.93 (2.75,5.11)***	6.57	0.38
Anger	0.76 (0.55,0.97)***	4.99	0.42	0.55 (0.34,0.76)***	5.21	0.31	0.53 (0.32,0.74)***	4.99	0.29
Past PTSD diagnosis ²				3.21 (0.08,6.34)*	2.03	0.14	3.25 (0.15,6.36)*	2.07	0.14
Past Depression diagnosis ³				4.70 (1.66,7.74)**	3.05	0.20	4.30 (1.26,7.34)**	2.79	0.18
Gender ⁴							-4.39 (-8.47,-0.32)*	-2.13	-0.12

¹ Sample sizes vary because of missing data.

² Past PTSD diagnosis coded 0 = No, 1 = Yes

³ Past Depression diagnosis coded 0 = No, 1 = Yes

⁴ Gender coded 0 = Female, 1 = Male

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 3.5: Predictors of the non-acceptance subscale (n=165)¹

Variable	Model 1(n=168)			Model 2 (n=166)			Model 3 (n=165)		
	Unstandardized coefficient		Standardized	Unstandardized coefficient		Standardized	Unstandardized coefficient		Standardized
	<i>b</i> (95% CI)	<i>t</i>	β	<i>b</i> (95% CI)	<i>t</i>	β	<i>b</i> (95% CI)	<i>t</i>	β
Mode of death ²	0.52 (0.17,0.86)**	2.99	0.21	0.52 (0.19,0.84)**	3.14	0.21	0.46 (0.14,0.79)**	2.85	0.19
Combat exposure	0.02 (0.00,0.04)*	2.46	0.19	0.15 (-0.00,0.03)	1.54	0.12	0.02 (0.00,0.04)*	6.57	0.38
Closeness	0.29 (0.29,0.45)***	4.99	0.29	0.24 (0.09,0.38)**	3.19	0.24	0.25 (0.10,0.39)**	4.99	0.29
Past PTSD Diagnosis ³				0.73 (0.41,1.05)***	4.52	0.32	0.68 (0.36,0.99)***	2.07	0.14
Gender ⁴							-0.73 (-1.21,-0.24)**	-2.13	-0.12

¹ Sample sizes vary because of missing data.

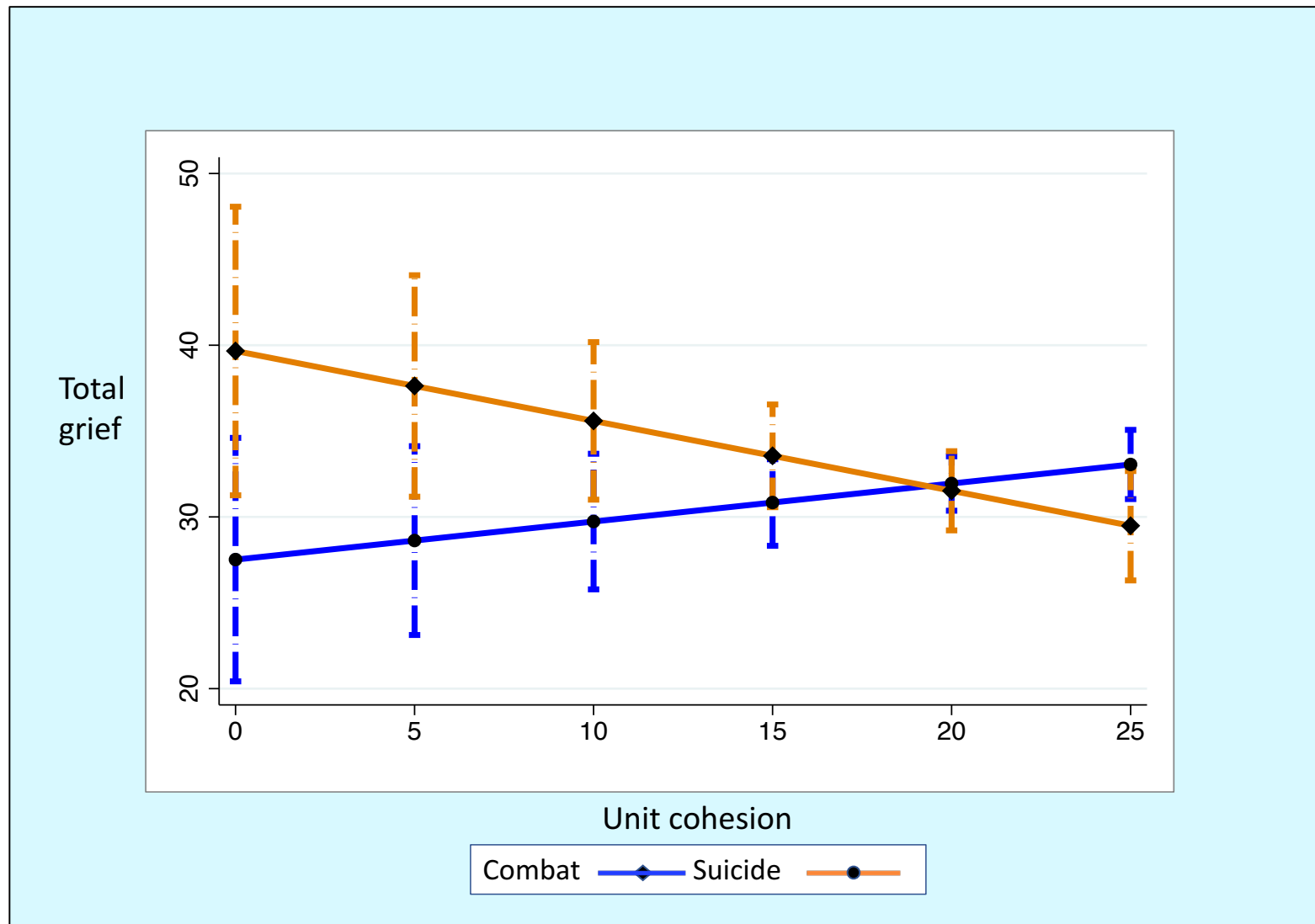
² Mode of death coded 0 = Combat, 1 = Suicide

³ Past PTSD diagnosis coded 0 = No, 1 = Yes

⁴ Gender coded 0 = Female, 1 = Male

* $p < .05$ ** $p < .01$ *** $p < .001$

Figure 3.2: Mode of death moderates the association between unit cohesion and grief ($n=158$)^{1,2}



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¹ $p < .05$

² Covariates: Combat exposure ($p < .01$), closeness ($p < .001$), anger ($p < .001$), and gender ($p = .01$)

Table 3.6: Comparison of the strength of association of combat exposure with grief and PTSS (n=150)^{1,2}

Variable	Grief			PTSS		
	β (95% CI)	SE	<i>t</i>	β (95% CI)	SE	<i>t</i>
Combat exposure	0.29 (0.15, 0.43)***	0.07	4.06	0.31(0.15, 0.48)***	0.08	3.80
Closeness	0.46(0.33, 0.59)***	0.07	6.98	0.21(0.06, 0.36)**	0.08	2.75
Education ³	-0.16(-0.27, -0.04)*	0.06	-2.56	-0.20 (-0.34, -0.07)**	0.07	-2.82
Gender ⁴	-0.68(-1.08, -0.27)**	0.20	-3.30	-0.76(-1.22, -0.29)**	0.24	-3.21

¹ Coefficients for continuous variables (combat exposure, closeness) are standardized;
Coefficients for education and gender are not standardized

² PTSS = posttraumatic stress symptoms

³ Reference group is no high school diploma

⁴ Gender coded 0 = female, 1 = male

* $p < .05$ ** $p < .01$ *** $p < .001$

Appendix 3A: Combat veterans survey

Introduction

University of California, Irvine
Study Information Sheet

A study of OIF/OEF combat veterans of the U.S. Military

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Thank you for your participation in this important study about the well-being of U.S. combat veterans. The purpose of this study is to better understand the experiences of veterans of the U.S. military who have served in combat in Iraq or Afghanistan and have lost a comrade.

Your participation is completely voluntary and anonymous. We do not ask for any identifying information and NO personally identifiable information will be attached to any survey response. We expect the survey to take 15-20 minutes to complete.

In this survey you will be asked to answer some questions using a scale provided with each question. Because we want to make sure we understand what you think or feel, we will sometimes ask a question in a few different ways, and we apologize in advance if it seems repetitive to you. If you are uncomfortable answering any question, you may of course skip it, and you may stop participating at any time. Any information you share us will be extremely helpful.

Please complete the survey in private and answer the questions in the order in which they are presented. Please answer the questions to the best of your ability as honestly and completely as you can. Of course, no two people will feel exactly the same, so there is no right or wrong way to answer any of the questions.

Upon completion of the survey you will be offered an opportunity to participate in a lottery for the chance to win one of two \$250 Amazon gift cards.

The survey completed by veterans who were interviewed had one additional question asking them to provide the number they were assigned, in order to link their survey to their interview transcripts for future analyses.

Thank you again for your help.
The success of this study depends on the participation of combat veterans like yourself.

Note: The Institutional Review Board of the University of California, Irvine (UCI) has reviewed this project. If you have any questions, you may contact the two researchers listed at the top of this page.

If you are unable to reach either of the researchers mentioned above and have general questions, have concerns or complaints about the research, have questions about your rights as a research subject, or have general comments or suggestions, you can also contact UCI's Office of Research by phone, (949) 824-8862, by e-mail at IRB@research.uci.edu, or at 141 Innovation Dr., Suite 250, Irvine, CA 92617

All research data collected will be stored securely and confidentially on a password protected computer at the University of California, Irvine that only study personnel will be able to access. You will not be named in any reports that are written based on this research.

When moving through the questions, please ONLY use the 'NEXT' and 'BACK' buttons at the BOTTOM of your screen and not those in your browser.

Identity number and military branch

In what branch of the military were you when you served in combat?
Please check all that apply.

- Air Force
- Air Force Reserve
- Air National Guard
- Army
- Army National Guard
- Army Reserves
- Marines
- Marine Reserves
- Navy
- Naval Reserve

—

Years of Service/ Combat Deployment

If you were active duty, how many years did you serve on active duty?
Please write a number in the box below.

If you were in the National Guard or Reserves, how many years did you serve in the National Guard or Reserves?
Please write a number in the box below.

How many times did you deploy to a combat zone?
Please write a number in the box below.

What was your highest grade or rank?

Combat experiences

We would like to ask you about some of your experiences during any of your combat deployments. Please think of **ALL** of your combat deployments when answering the following questions.

How many times did you ever have each of the following experiences during any of your combat deployments?
Please select one answer from each row in the grid.

	0	1	2-4	5-9	10 or more
Go on combat patrols or have other dangerous duty (e.g., clearing buildings, disarming civilians, working in areas that had IEDs).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fire rounds at the enemy or take enemy fire (either direct or indirect fire).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	0	1	2-4	5-9	10 or more
Get wounded by the enemy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have a close call (that is, equipment shot off body, IED exploded near you).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have member(s) of your unit who were seriously wounded or killed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have direct responsibility for the death of an enemy combatant.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have direct responsibility for the death of a non-combatant.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many times did you ever have each of the following experiences during any of your combat deployments?

Please select one answer from each row in the grid.

	0	1	2-4	5-9	10 or more
Have direct responsibility for the death of U.S. or ally personnel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
See homes or villages that had been destroyed or people begging for food.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get exposed to the sights, sounds, or smells of severely wounded or dying people or see dead bodies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Witness violence within the local population or mistreatment toward non-combatants.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You were seriously physically assaulted (for example, mugged).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You were sexually assaulted or raped.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You were hazed or bullied by one or more members of your unit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Unit Support

The statements below refer to your relationships with members of your unit. As used here, "unit" refers to those you lived and worked with daily during a combat deployment.

Please fill this out according to your most recent combat deployment, and indicate how much you disagree or agree with each statement.

Please select one answer from each row in the grid.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
My unit was like family to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People in my unit were trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt valued by my fellow unit members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Members of my unit were interested in my well-being.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My fellow unit members were interested in what I thought and how I felt about things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PCL-5 (Military) V2

Now we would like to ask you some questions about certain responses you may or may not have had surrounding your military experiences.

Below is a list of problems that veterans sometimes have in response to stressful military experiences. Please read each problem carefully. Please indicate how much you have been bothered by each of the following problems in THE PAST MONTH by selecting the appropriate answer.

Please select one answer from each row in the grid.

	Not at all	A little bit	Moderately	Quite a bit	Extremely
Repeated, disturbing, and unwanted memories of a stressful military experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Repeated, disturbing dreams of a stressful military experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suddenly feeling or acting as if a stressful military experience were actually happening again (as if you were actually back there reliving it).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling very upset when something reminded you of a stressful military experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not at all	A little bit	Moderately	Quite a bit	Extremely
Having strong physical reactions when something reminded you of a stressful military experience (for example, heart pounding, trouble breathing, sweating).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoiding memories, thoughts, or feelings related to a stressful military experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoiding external reminders of a stressful military experience (for example, people, places, conversations, activities, objects, or situations).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trouble remembering important parts of a stressful military experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blaming yourself or someone else for a stressful military experience or what happened after it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Please indicate how much you have been bothered by each of the following problems in <u>THE PAST MONTH</u> by selecting the appropriate answer. Please select one answer from each row in the grid.</p>					
	Not at all	A little bit	Moderately	Quite a bit	Extremely
Having strong negative feelings such as fear, horror, anger, guilt, or shame.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loss of interest in activities that you used to enjoy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling distant or cut off from other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable behavior, angry outbursts, or acting aggressively.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not at all	A little bit	Moderately	Quite a bit	Extremely
Taking too many risks or doing things that could cause you harm.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being "superalert," or watchful, or on guard.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling jumpy or easily startled.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having difficulty concentrating.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trouble falling or staying asleep.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Anger and previous diagnoses

The following questions refer to your feelings and your behavior. As accurately as you can, please rate the degree to which the following statements describe your feelings and behavior.

	Not at all	A little	Moderately so	Fairly much	Very much
I often find myself getting angry at people or situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I get angry, I get really mad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I get angry at someone, I want to hit or clobber the person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My anger interferes with my ability to get my work done.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My anger prevents me from getting along with people as well as I would like to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My anger has a bad effect on my health.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate if a psychologist or physician has diagnosed you with any of the following. If your answer is "yes," please indicate what year you were diagnosed in the box under the name of the diagnosis.

Yes

No

Post Traumatic Stress Disorder
If yes, what year?

Depression
If yes, what year?

Generalized Anxiety Disorder
If yes, what year?

Death of friend(s)

The U.S. military has sustained a high number of losses during the wars in Afghanistan and Iraq, including both in combat and by suicide. When answering the following questions, please think about **ONE PARTICULAR PERSON** that served in the military – whose death was due to combat or was by suicide – and whose death affected you the most.

Please think about how close you were to that person.

	Not close at all	A little close	Somewhat close	Very close	Best friends
We were.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How did that person die?

- In combat (or due to combat injuries)
- By suicide

In what month and year did that person die?

Grief Measure/Number of deaths

When answering the following questions, please think of the person who has died about whom you answered the previous questions.

Please use the scale below to indicate how you PRESENTLY feel about this person's death.

Please select one answer from each row in the grid.

	Completely false	Mostly false	Neutral	Mostly true	Completely true
I still get upset when I think about the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I cannot accept this person's death.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes I very much miss the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Even now it's painful to recall memories of the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am preoccupied with thoughts (often think) about the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I still cry when I think of the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please use the scale below, from to indicate how you PRESENTLY feel about this person's death.

Please select one answer from each row in the grid.

	Completely false	Mostly false	Neutral	Mostly true	Completely true
I hide my tears when I think about the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No one will ever take the place in my life of the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can't avoid thinking about the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Things and people around me still remind me of the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am unable to accept the death of the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At times I still feel the need to cry for the person who died.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many friends or people with whom you served in the military died in combat (or due to combat injuries)?

Please write a number in the box below.

How many people with whom you served in the military have committed suicide?
Please write a number in the box below.

Substance abuse

Now we want to ask you a few questions about your use of alcohol or drugs.

Did your drug and/or alcohol use decrease or increase after your most recent combat deployment?

- Increased
- Decreased
- Was the same
- I don't drink or use drugs.

Have you used drugs and/or alcohol to cope with the loss due to combat or to suicide of someone with whom you served in the military?

- Yes
- No

Personal Life Events

Now we would like to ask you about some events that may have happened to you during your lifetime (before you enlisted in the military). Please think back to the time before you enlisted when answering the questions below.
Please mark "Yes" or "No" for each question.

Before I enlisted

	Yes	No
... Someone close to me died	<input type="radio"/>	<input type="radio"/>
... I went through a divorce or was left by a significant other.	<input type="radio"/>	<input type="radio"/>
... I was robbed or had my home broken into.	<input type="radio"/>	<input type="radio"/>

	Yes	No
... I saw or heard physical fighting between my parents or caregivers.	<input type="radio"/>	<input type="radio"/>
... I experienced unwanted sexual activity as a result of force, threat of harm, or manipulation during childhood (BEFORE age 18).	<input type="radio"/>	<input type="radio"/>

Before I enlisted

	Yes	No
... I experienced unwanted sexual activity as a result of force, threat of harm, or manipulation during adulthood (age 18 OR LATER).	<input type="radio"/>	<input type="radio"/>
... I experienced an accident, a fire, or a natural disaster (for example, a hurricane), in which I or someone close to me was hurt or had serious property damage.	<input type="radio"/>	<input type="radio"/>
... Someone close to me experienced a serious illness, injury, or mental health problem (for example, cancer, alcohol/drug problem).	<input type="radio"/>	<input type="radio"/>
... I witnessed someone being seriously assaulted or killed.	<input type="radio"/>	<input type="radio"/>
... I lost my job or had serious trouble finding a job.	<input type="radio"/>	<input type="radio"/>

Before I enlisted

	Yes	No
... I was emotionally mistreated (for example ignored or repeatedly told I was no good).	<input type="radio"/>	<input type="radio"/>
... I experienced serious financial problems.	<input type="radio"/>	<input type="radio"/>
... I experienced serious physical or mental health problems.	<input type="radio"/>	<input type="radio"/>
... I experienced stressful legal problems (for example, being sued, suing someone else, or being in a custody battle).	<input type="radio"/>	<input type="radio"/>

Social and Emotional Support

Now we would like to ask you some questions about your interactions with others.

Please think about your interactions with others in general over the past week when answering the following questions.

In the past week, how often did the following people help you understand or sort things out?
Please select one answer from each row in the grid.

	Never	Rarely	Sometimes	Often	All the time	Does not apply
Romantic partner or spouse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Close friend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Another veteran	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In the past week, how often did the following people provide you with encouragement?
Please select one answer from each row in the grid.

	Never	Rarely	Sometimes	Often	All the time	Does not apply
Romantic partner or spouse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Close friend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Another veteran	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In the past week, how often did you have a disagreement with the following people?
Please select one answer from each row in the grid.

	Never	Rarely	Sometimes	Often	All the time	Does not apply
Romantic partner or spouse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Close friend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Another veteran	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In the past week, how often did you become openly angry with the following people?
Please select one answer from each row in the grid.

	Never	Rarely	Sometimes	Often	All the time	Does not apply
Romantic partner or spouse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Never	Rarely	Sometimes	Often	All the time	Does not apply
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Close friend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Another veteran	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Who are you MOST likely to turn to for emotional support?
Please select only one answer.

- Romantic partner or spouse
- Family
- Close friend
- Another veteran
- Someone else (*Please specify*)

Open Ended Question

Previously we asked you to think about one particular person who died in combat or by suicide whose death affected you the most. If you want to tell us more about how you were affected by that person's death, please write your answer below.
(There is no limit to the length of your answer.)

Demographics

Now we have a few final questions.

In what year were you born?

Please write a number in the box below.

How old were you when you joined the military?

Please write a number in the box below.

What is your gender?

- Male
 Female

What is your marital status?

- Married
 Divorced/Separated
 Widowed
 Never married

Please identify your race or ethnicity.

- African American or Black
 Asian
 Hispanic or Latino
 Multi-racial or multi-ethnic
 Native American or Alaskan Native
 Native Hawaiian or other Pacific Islander
 White (Non-Hispanic)
 Other (Please specify)

What is your highest level of education?

- GED or equivalent
- High School diploma
- Community college/technical School
- University (BA or BS degree)
- Graduate School or Professional School
- Other (Please specify)

What is your highest level of education?

- GED or equivalent
- High School diploma
- Community college/technical School
- University (BA or BS degree)
- Graduate School or Professional School
- Other (Please specify)

What was your annual HOUSEHOLD income in the past 12 months before taxes?
Please check one.

- Less than \$5,000
- \$5,000 to 7,499
- \$7,500 to \$9,999
- \$10,000 to \$12,499
- \$12,500 to \$14,999
- \$15,000 to \$19,999
- \$20,000 to \$24,999
- \$25,000 to \$29,999
- \$30,000 to \$34,999
- \$35,000 to \$39,999
- \$40,000 to \$49,999
- \$50,000 to \$59,999
- \$60,000 to \$74,999
- \$75,000 to \$94,999
- \$85,000 to \$99,999
- \$100,000 to \$124,999
- \$125,000 to \$149,999
- \$150,000 to \$174,999
- \$175,000 or more

Thank you

Thank you for your participation in this valuable study. The information that you have shared with us will be used to further our understanding of how serving in combat affects the well-being of U.S. combat veterans.

** If you would like to be entered into the drawing to win one of two \$250 AMAZON GIFT CARDS, please copy the link below into your browser, which will take you to a separate survey where you can submit your email address. Your email address cannot and will not be connected with your survey answers. Your email address will only be used for this drawing, and we will not share your contact information with anyone.

Please copy this link into your browser to enter the drawing:
https://ucisoe.qualtrics.com/SE/?SID=SV_6DQ02AnypBEIjX

BEFORE PROCEEDING TO THE LINK TO ENTER THE DRAWING, please advance to the next page so that your survey responses will be recorded.

The success our research depends on veterans like you.

We would appreciate it if you could email the link to this survey to other COMBAT veterans, who have been combat deployed to either Iraq or Afghanistan, and have lost a military friend to combat or to suicide.

In addition, if you have lost a comrade to BOTH combat and suicide and are willing to answer additional questions, please email the lead researcher: Pauline Lubens at lubensp@uci.edu

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References

- Bremner, J., Southwick, S., Johnson, D., Yehuda, R., & Charney, D. (1993). Childhood physical abuse and combat-related posttraumatic stress disorder in Vietnam veterans. *The American Journal of Psychiatry*, *150*(2), 235–239. <https://doi.org/10.1176/ajp.150.2.235>
- Breslau, N., Davis, G. C., Peterson, E. L., & Schultz, L. R. (2000). A second look at comorbidity in victims of trauma: The posttraumatic stress disorder–major depression connection. *Biological Psychiatry*, *48*(9), 902–909.
- Breslau, N., Kessler, R. C., Chilcoat, H. D., Schultz, L. R., Davis, G. C., & Andreski, P. (1998). Trauma and Posttraumatic Stress Disorder in the community: The 1996 Detroit Area Survey of Trauma. *Archives of General Psychiatry*, *55*(7), 626–632. <https://doi.org/10.1001/archpsyc.55.7.626>
- Burke, L. A., Neimeyer, R. A., & McDevitt-Murphy, M. E. (2010). African American homicide bereavement: Aspects of social support that predict complicated grief, PTSD, and depression. *OMEGA - Journal of Death and Dying*, *61*(1), 1–24. <https://doi.org/10.2190/OM.61.1.a>
- Carr, D. (2008). Factors that influence late-life bereavement: Considering data from the changing lives of older couples study. In M. S. Stroebe, R. O. Hansson, H. Schut, & W. Stroebe (Eds.), *Handbook of bereavement research and practice: Advances in theory and intervention* (pp. 417–440). Washington, DC, US: American Psychological Association. <https://doi.org/10.1037/14498-020>
- Delahanty, D. L., & Nugent, N. R. (2006). Predicting PTSD prospectively based on prior trauma history and immediate biological responses. *Annals of the New York Academy of Sciences*, *1071*(1), 27–40. <https://doi.org/10.1196/annals.1364.003>

- Faschingbauer, T., Zisook, S., & DeVaul, R. (1987). The Texas Revised Inventory of Grief. In S. Zisook (Ed.), *Biopsychosocial aspects of bereavement* (pp. 111–124). Washington DC: American Psychiatric Press.
- Futterman, A., Holland, J. M., Brown, P. J., Thompson, L. W., & Gallagher-Thompson, D. (2010). Factorial validity of the Texas Revised Inventory of Grief—Present scale among bereaved older adults. *Psychological Assessment, 22*(3), 675-687
<https://doi.org/10.1037/a0019914>
- Hibberd, R., Elwood, L. S., & Galovski, T. E. (2010). Risk and protective factors for posttraumatic stress disorder, prolonged grief, and depression in survivors of the violent death of a loved one. *Journal of Loss and Trauma, 15*(5), 426–447.
<https://doi.org/10.1080/15325024.2010.507660>
- Iraq and Afghanistan Veterans of America. (2017). IAVA 2017 Annual Member Survey. Retrieved October 29, 2017, from https://iava.org/wp-content/uploads/2016/05/IAVA_Survey_2017_v11update.pdf
- Jakupcak, M., Conybeare, D., Phelps, L., Hunt, S., Holmes, H. A., Felker, B., ... McFall, M. E. (2007). Anger, hostility, and aggression among Iraq and Afghanistan war veterans reporting PTSD and subthreshold PTSD. *Journal of Traumatic Stress, 20*(6), 945–954.
<https://doi.org/10.1002/jts.20258>
- Kamarck, K. N. (2015). *Women in combat: Issues for Congress*. Library of Congress: Washington DC. Retrieved from <http://www.dtic.mil/docs/citations/AD1007840>
- Kreicbergs, U. C., Lannen, P., Onelov, E., & Wolfe, J. (2007). Parental grief after losing a child to cancer: Impact of professional and social support on long-term outcomes. *Journal of Clinical Oncology, 25*(22) 3307–3312. <https://doi.org/10.1200/JCO.2006.10.0743>

- Lubens, P., & Bruckner, T. A. (2018). A review of military health research using a social-ecological framework. *American Journal of Health Promotion, 32*(4), 1078–1090.
<https://doi.org/10.1177/0890117117744849>
- Luxton, D. D., Skopp, N. A., & Maguen, S. (2010). Gender differences in depression and PTSD symptoms following combat exposure. *Depression and Anxiety, 27*(11), 1027–1033.
<https://doi.org/10.1002/da.20730>
- Maguen, S., Lucenko, B. A., Reger, M. A., Gahm, G. A., Litz, B. T., Seal, K. H., ... Marmar, C. R. (2010). The impact of reported direct and indirect killing on mental health symptoms in Iraq war veterans. *Journal of Traumatic Stress, 23*(1), 86–90.
- Miles, M. S., & Demi, A. S. (1992). A comparison of guilt in bereaved parents whose children died by suicide, accident, or chronic disease. *Omega-Journal of Death and Dying, 24*(3), 203–215. <https://doi.org/10.2190/G41E-RKTF-P0XD-LJLK>
- Mitchell, M. M., Gallaway, M. S., Millikan, A. M., & Bell, M. (2012). Interaction of combat exposure and unit cohesion in predicting suicide-related ideation among post-deployment soldiers. *Suicide and Life-Threatening Behavior, 42*(5), 486–494.
<https://doi.org/10.1111/j.1943-278X.2012.00106.x>
- Murphy, S., Johnson, L. C., Wu, L., Fan, J., & Lohan, J. (2003). Bereaved parents' outcomes 4 to 60 months after their children's deaths by accident, suicide, or homicide: A comparative study demonstrating differences. *Death Studies, 27*(1), 39–61.
<https://doi.org/10.1080/07481180302871>
- Novaco, R. (1975). Dimensions of anger reactions. *Irvine, CA: University of California.*
- Novaco, R. W., Swanson, R. D., Gonzalez, O. I., Gahm, G. A., & Reger, M. D. (2012). Anger and postcombat mental health: Validation of a brief anger measure with U.S. Soldiers

- postdeployed from Iraq and Afghanistan. *Psychological Assessment*, 24(3), 661–675.
<http://dx.doi.org/10.1037/a0026636>
- Prigerson, H. G., Bridge, J., Maciejewski, P. K., Beery, L. C., Rosenheck, R. A., Jacobs, S. C., ... Brent, D. A. (1999). Influence of traumatic grief on suicidal ideation among young adults. *American Journal of Psychiatry*, 157(12), 1994-1995. Retrieved from
<http://ajp.psychiatryonline.org/doi/full/10.1176/ajp.156.12.1994>
- Servaty-Seib, H. L., & Pistole, M. C. (2007). Adolescent grief: Relationship category and emotional closeness. *OMEGA - Journal of Death and Dying*, 54(2), 147–167.
<https://doi.org/10.2190/M002-1541-JP28-4673>
- Siebold, G. L. (2007). The essence of military group cohesion. *Armed Forces & Society*, 33(2), 286–295. <https://doi.org/10.1177/0095327X06294173>
- Stroebe, M., Stroebe, W., & Abakoumkin, G. (2005). The broken heart: Suicidal ideation in bereavement. *The American Journal of Psychiatry*, 162(11), 2178–2180.
<https://doi.org/10.1176/appi.ajp.162.11.2178>
- Stroebe, M., & Schut, H. (2001). Models of coping with bereavement. In M. Stroebe, R. O. Hansen, H. Schut, & W. Stroebe (Eds.), *Handbook of bereavement: Consequences, coping, and care* (pp. 375–403). Washington, DC: American Psychological Association.
- Stroebe, M., Schut, H., & Stroebe, W. (2007). Health outcomes of bereavement. *The Lancet*, 370(9603), 1960–1973.
- Ursano, R. J., Colpe, L. J., Heeringa, S. G., Kessler, R. C., Schoenbaum, M., Stein, M. B., & On behalf of Army STARRS collaborators (2014). The Army study to assess risk and resilience in service members (Army STARRS). *Psychiatry: Interpersonal and Biological Processes*, 77(2), 107–119. <https://doi.org/10.1521/psyc.2014.77.2.107>

- Vogt, D., & Smith, B. N. (2013). Deployment Risk and Resilience Inventory-2 (DRRI-2): An updated tool for assessing psychosocial risk and resilience factors among service members and veterans. *Journal of Traumatic Stress, 26*, 710–717.
<https://doi.org/10.1002/jts.21868>
- Walker, K. N., MacBride, A., & Vachon, M. L. (1977). Social support networks and the crisis of bereavement. *Social Science & Medicine, 11*(1), 35–41. [https://doi.org/10.1016/0037-7856\(77\)90143-3](https://doi.org/10.1016/0037-7856(77)90143-3)
- Weathers, F. W., Bovin, M. J., Lee, D. J., Sloan, D. M., Schnurr, P. P., Kaloupek, D. G., ... Marx, B. P. (2018). The clinician-administered PTSD scale for DSM–5 (CAPS-5): Development and initial psychometric evaluation in military veterans. *Psychological Assessment, 30*(3), 383-395. <https://doi.org/10.1037/pas0000486>
- Worthen, M., Rathod, S. D., Cohen, G., Sampson, L., Ursano, R., Gifford, R., ... Ahern, J. (2014). Anger problems and posttraumatic stress disorder in male and female National Guard and Reserve Service members. *Journal of Psychiatric Research, 55*, 52–58.
<https://doi.org/10.1016/j.jpsychires.2014.04.004>
- Wortman, C. B., & Silver, R. C. (1989). The myths of coping with loss. *Journal of Consulting and Clinical Psychology, 57*(3), 349–357. <https://doi.org/10.1037/0022-006X.57.3.349>
- Xue, C., Ge, Y., Tang, B., Liu, Y., Kang, P., Wang, M., & Zhang, L. (2015). A meta-analysis of risk factors for combat-related PTSD among military personnel and veterans. *PLOS ONE, 10*(3), e0120270. <https://doi.org/10.1371/journal.pone.0120270>

CHAPTER 4

The Story of Veteran Grief: The Mixed Methods Message

The Complex Story

The results of the two components of this study tell a complex story about how combat veteran grieve. We have learned how they experience the deaths of their military comrades and what factors predict their level of grief. The qualitative themes that emerged from analysis of the interview transcripts suggest that veterans experience suicide and combat deaths differently, characterizing combat deaths as expected and thus easier to accept, while regarding suicide deaths as unexpected and more difficult to accept. The quantitative analyses supported the qualitative themes, suggesting that the level of acceptance differed by mode of death, with suicide deaths being associated with a higher level of non-acceptance. Thus, the mixed-methods message tells a different story than grief research in the civilian community, which as discussed in previous chapters, has not distinguished between the expected and unexpected nature of suicide deaths and violent deaths. Moreover, the survey finding that the mode of death moderated the association between unit cohesion and grief and the qualitative theme describing the depth of bonding — the brotherhood — forged in combat complement one another. Additionally, the two components of the study intersected as the qualitative themes told a narrative of blame and anger, while the survey results found anger to be a significant predictor of the level of grief.

The Value of the Mixed Methods Design

Often, we are left to theorize or speculate about why we find associations between trauma exposure and psychological response, particularly in the case of a novel study that does not enable us to seek an explanation for the results of prior studies. Thus, studies may leave us asking “why”? A qualitative study can tell us “why.” Power and colleagues (2018) recently addressed this concept when they proposed what they called “a SAGE model” for social

psychology research. They suggest an end to the conflict between the two methodologies and instead call for appreciating the potential for a productive and complementary relationship that is “synthetic, augmentative, generative experiential.” They point out: “There is no practical reason that both forms of methodology should not inform one another to increase holistic understanding of social psychological phenomena” (p. 359).

The two components of this dissertation sought to achieve a holistic understanding of grief in combat veterans in a way that neither component could have achieved alone. Neither component of this study could have told the full story of grief in combat veterans. That is the value of a mixed methods study. While the qualitative interviews of veterans suggest that combat deaths are easier to accept compared to suicide deaths because dying in combat is perceived to be expected and can be regarded as heroic or meaningful, the survey allowed for empirical measurements that quantified the association between the mode of death and acceptance of a death. Similarly, although the analysis of survey results found that anger was a predictor of grief, without the voices of the veterans describing the blame that provokes their anger, we would have been left with only half the story.

In addition, there were results from the survey that would have never emerged from the interviews alone: the finding that combat exposure may be an equally strong risk for grief as it is for PTSS. Even if veterans who had been diagnosed with combat-related PTSD had perceived that it was really grief from which they were suffering rather than, or in addition to PTSD, this would have been pure speculation in the absence of an empirical measure. The topic of combat exposure as a risk for grief never arose in any of the interviews. This is likely because there has been little— if any— research exploring combat exposure’s association with grief. Thus, it is not part of the public discourse or clinical approaches.

Differences between the Two Study Components

There were differences in loss, combat exposure and gender between the sample populations of the two components of the study. All the veterans interviewed for the qualitative component were recruited because they had lost comrades to *both* combat and suicide. On the other hand, 33% of those veterans who participated only in the survey had lost comrades to only one mode of death. In addition, all of those interviewed were male, while 86.3% of those surveyed were male. However, there was no difference between the two groups in the average total number of comrades lost. Both had lost an average of ten comrades. On average, combat exposure was higher among those who had been interviewed compared to those who were surveyed only ($M=27.8$ vs $M=20.8$, out of a maximum of 56; $p<.001$). In addition, the difference between the mean level of closeness to the comrade about whom each group responded to the grief measure was statistically different (interview participants: $M=2.7$; survey-only participants: $M=2.1$), out of a maximum of 4). However, there was not a statistically significant difference in the mean level of grief between those who were interviewed and those who only completed the survey.

Another difference between the two components of the study is that the survey data collection was anonymous while the interviews were face-to-face and thus not anonymous. It is possible that those who were interviewed responded to questions based on the fact that they were not anonymous (and hence were providing socially desirable responses), despite assurances that the content of the interview would remain confidential. In some cases, veterans interviewed may have embellished their combat experiences and even the circumstances of their comrade's death. The fact that the mean level of combat exposure as measured by the survey was higher for those who had been interviewed may have been influenced by how they described their combat

experiences during their interviews. Moreover, there is also the possibility that those interviewed were less than forthcoming about the degree to which they grieved their comrades. Some sobbed during the interviews; others recounted their comrade's deaths displaying little emotion. However, display of emotion is not necessarily equivalent to the depth of emotion. As was discussed in Chapter 2, the difficulty in recruiting interview participants may have yielded a sample that was more willing and able to discuss loss than veterans who took an anonymous survey, although as measured in the survey, the mean level of grief between the two components was not significantly different.

Applying the Relevant Theories of Grief

The theories of grief and bereavement discussed Chapter 1 are relevant to the results of both components. They can be applied to the qualitative themes as well as to the findings of the analyses of the survey data.

Attachment Theory

Attachment theory, as described in Chapter 1, is relevant to the study's findings that closeness to the deceased was the strongest predictor of the level of grief. It is possible that the bonds that combat troops described sharing may create a familial-like attachment — although not the child-maternal attachment to which the theory was originally developed—and thus attachment theory may be applicable to veteran grief. Neria and Litz (2004) posited that “symptoms of PTSD fail to sufficiently capture the unique experiences of those who suffer from chronic grief as a result of violent loss of an important attachment figure” (p. 75). This concept is particularly salient to this dissertation's focus on grief in combat veterans who have lost comrades. Their comrades can be seen as attachment figures, and without a doubt their comrades have died violent deaths.

Moreover, the role of attachment was visible in the form of unit cohesion, which

moderated the association between the mode of death and level of grief in combat veterans. However, we do not know if their responses were avoidant behavior or preoccupation, because there was no measure for either of those behavioral domains in the survey and neither behavior was a topic in any of the interviews.

In addition, Bowlby's (1982) concept that that anger at third parties or the deceased, blame, and guilt are common as elements of grief responses is salient to the qualitative theme of blame and anger. Veterans who were interviewed expressed anger toward third parties over combat deaths, as well as toward the deceased over suicide deaths. The role of anger was also seen in the quantitative component's finding that the total level of anger was positively associated with the total level of grief.

Multidimensional Grief Theory

Although Kaplow and colleagues' (2013) description of Multidimensional Grief Theory was applied to military children's responses to combat deployment and the loss of a parent in war, we can see elements of the theory in the grief responses of combat veterans. We see what they called "existential/identity-related distress" in the guilt veterans expressed over their comrades' deaths and the role they speculated their own actions or inactions may have played. We can also see existential and identity-related distress in the emergent themes of moral injury and sense of purpose. In addition, what Kaplow and colleagues labelled "distress over the circumstances of the death" is certainly reflected in the suggestion that veterans' grief responses and anguish varied according to whether their comrade died in combat or by suicide.

Normal, Pathological, And Unresolved Grief

Admittedly it is unclear how the notions of normal, pathological or unresolved grief

may apply to this study's results because exploration of those grief domains was beyond the scope of this project. It is hard to know if the veterans who participated in this study were experiencing normal or pathological grief because the survey lacked appropriate measures to distinguish them. In addition, the survey did not include any questions about physical health so it is beyond the scope of this study to determine the nature of their grief and if they have suffered physical health outcomes associated with their grief. Moreover, the interviews were not the proper platform for identifying the underlying nature of the veterans' grief. We might nonetheless speculate about the presence of unresolved grief. Some veterans sobbed as they described their losses; others were relatively passive. Most said they had not spoken to anyone else about their losses and their grief. One veteran said it was only recently, more than 5 years since he lost his comrades, that he and his military friends had discussed their deaths.

DISCUSSION

When a war ends, the battle begins. We know that the toll of serving in combat is extensive and bringing troops home from war is only the first stage of a long, arduous struggle to recover. Research focusing on the health of OEF and OIF veterans since the onset of the wars in Afghanistan and Iraq has quantified the adverse mental (Hoge et al., 2004; Luxton, Skopp, & Maguen, 2010), behavioral (Gallaway, Fink, Millikan, & Bell, 2012; Skipper, Forsten, Kim, Wilk, & Hoge, 2014), and physical (Bagnell et al., 2013; Granado et al., 2009) health effects of combat exposure. Studies have also identified mental and behavioral health outcomes in spouses and children (Lester et al., 2010; Mansfield, Kaufman, Engel, & Gaynes, 2011). Researchers have even explored grief in the families of troops who have died in combat. However, scholars have clearly overlooked grief as another consequence of serving in war. This study begins to fill that research chasm.

The Long-Term Risk of Not Addressing Grief in Veterans

This study is particularly important in light of research that has found deleterious prolonged mental and physical health effects of grief (e.g., Hibberd, Elwood & Galovski, 2010; Prigerson et al., 1997; Toblin et al, 2012). A few studies have explored grief in Vietnam-era combat veterans decades after they lost comrades in combat (e.g., Currier & Holland, 2012; Pivar & Field, 2004). Results suggested that prolonged grief adversely affected family relationships and mental health, and that combat losses were more likely predictors of grief than depressive symptoms or stress responses to traumatic events (Currier & Holland, 2012). Moreover, the gravity of this topic is informed by Granek's (2010) summary of scholarly work that distinguished between a transitory or "normal" grief response and a more pathological grief that may have more deleterious health consequences requiring intervention. Thus, this study's results serve as a clarion call for further attention to be paid to grief in the current generation of veterans.

The importance of addressing grief was raised by some of the veterans who were interviewed for this study. One veteran talked at length about his own increased willingness to tell his story and how he felt that this contributed to his own wellbeing. He speculated that it was important for other veterans to follow suit, and pointed out that many Vietnam veterans have delayed addressing their grief over losing comrades in battle:

“... you have Vietnam vets who are barely talking about what happened what 30, 40 years ago, that's pretty much just like, pretty much just gotta face it; face the thoughts, face everything, they're never gonna go away....”

When asked what those “thoughts” are, he said: “Combat, people dying, any, anyone, anywhere we've been ... All that stuff's never gonna go away and like little things will trigger it...”

Another veteran drew a connection between the assumption that death is inevitable during combat, the inability to respond to death while still in the war zone, and how that impacts his ability to resolve his grief:

“I remember just thinking, wow, any day it can really happen to anyone, um I think I thought about it more coming back than actually being over there cuz they don’t really want you to have that down time to think about it. ... it makes you think you know, was it worth it, etc., to have to live with this or with my injuries or with those memories forever...”

Public Health Implications

Understanding the toll of war on veterans has important public health implications because their post-war health outcomes touch not only the veterans themselves, but undoubtedly also cascade to their families and their broader communities. As Wortman and Silver (1989) pointed out, there are no universal methods of coping or quantified stages of grief, and there is no empirical standard for successful bereavement or a required outcome. In fact, clinging to pre-conceived notions or mythical stages of grief can impede the ability of one’s social network to provide assistance and can also result in harsh self-judgment. It is imperative to explore grief responses in veterans and to appreciate the gravity of the potential long-term health outcomes associated with prolonged grief among this population.

The more we can delineate the distinct toll of suicide and combat loss among the current generation of veterans, the better we can minimize the public health impact of the most recent U.S. wars. This study, which has elucidated distinct grief responses to suicide and combat and has identified the predictors or moderators of grief, will contribute to the efforts to ameliorate and heal the wounds of war. Moreover, paying closer attention to the unexplored consequences of service in war may enable scholars to avoid repeating the mistakes of the past when they overlooked PTSD in Vietnam veterans for too long. In addition, this dissertation’s results will

ideally inform future clinical approaches, and result in efforts to address grief during mental health treatment of combat veterans.

Less than 1 percent of the American public serves in the military and the country is largely untouched by war's burden. However, long after the guns grow silent and someone somewhere declares that peace is at hand, many combat veterans continue to fight a war within long after they return home.

References

- Bagnell, M. E., LeardMann, C. A., McMaster, H. S., Boyko, E. J., Smith, B., Granado, N. S., & Smith, T. C. (2013). The association of predeployment and deployment-related factors on dimensions of postdeployment wellness in US military service members. *American Journal of Health Promotion, 28*(2), 56–66. <https://doi.org/10.4278/ajhp.120306-QUAN-128>
- Bailey, S. E., Kral, M. J., & Dunham, K. (1999). Survivors of suicide do grieve differently: Empirical support for a common sense proposition. *Suicide and Life-Threatening Behavior, 29*(3), 256–271. <https://doi.org/10.1111/j.1943-278X.1999.tb00301.x>
- Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry, 52*(4), 664–678. <http://dx.doi.org/10.1111/j.1939-0025.1982.tb01456.x>
- Currier, J. M., & Holland, J. M. (2012). Examining the role of combat loss among Vietnam War veterans. *Journal of Traumatic Stress, 25*(1), 102–105. <https://doi.org/10.1002/jts.21655>
- Gallaway, M. S., Fink, D. S., Millikan, A. M., & Bell, M. R. (2012). Factors associated with physical aggression among US army soldiers. *Aggressive Behavior, 38*(5), 357–367. <https://doi.org/10.1002/ab.21436>
- Granado, N. S., Smith, T. C., Swanson, G. M., Harris, R. B., Shahar, E., Smith, B., ... Ryan, M. A. K. (2009). Newly reported hypertension after military combat deployment in a large population-based study. *Hypertension, 54*(5), 966–973. <https://doi.org/10.1161/hypertensionaha.109.132555>
- Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351*(1), 13–22. <https://doi.org/10.1056/NEJMoa040603>

- Iraq and Afghanistan Veterans of America. (2017). IAVA Annual Member Survey. Retrieved October 29, 2017, from https://iava.org/wp-content/uploads/2016/05/IAVA_Survey_2017_v11update.pdf
- Jones, E. (2018). Moral injury in time of war. *The Lancet*, *391*(10132), 1766–1767. [https://doi.org/10.1016/S0140-6736\(18\)30946-2](https://doi.org/10.1016/S0140-6736(18)30946-2)
- Kaplow, J. B., Layne, C. M., Saltzman, W. R., Cozza, S. J., & Pynoos, R. S. (2013). Using multidimensional grief theory to explore the effects of deployment, reintegration, and death on military youth and families. *Clinical Child and Family Psychology Review*, *16*(3), 322–340. <https://doi.org/10.1007/s10567-013-0143-1>.
- Lester, P., Peterson, K., Reeves, J., Knauss, L., Glover, D., Mogil, C., ... Beardslee, W. (2010). The long war and parental combat deployment: Effects on military children and at-home spouses. *Journal of the American Academy of Child and Adolescent Psychiatry*, *49*(4), 310–320. <https://doi.org/10.1016/j.jaac.2010.01.003>
- Lubens, P., & Bruckner, T. A. (2018). A review of military health research using a social–ecological framework. *American Journal of Health Promotion*, *32*(4), 1078–1090. <https://doi.org/10.1177/0890117117744849>
- Luxton, D. D., Skopp, N. A., & Maguen, S. (2010). Gender differences in depression and PTSD symptoms following combat exposure. *Depression and Anxiety*, *27*(11), 1027–1033. <https://doi.org/10.1002/da.20730>
- Mansfield A. J., Kaufman, J. S., Engel, C. C., & Gaynes, B. N. (2011). Deployment and mental health diagnoses among children of US army personnel. *Archives of Pediatrics & Adolescent Medicine*, *165*(11), 999–1000. <https://doi.org/10.1001/archpediatrics.2011.123>

- Neria, Y., & Litz, B. T. (2004). Bereavement by traumatic Means: The complex synergy of trauma and grief. *Journal of Loss and Trauma, 9*(1), 73–87.
<https://doi.org/10.1080/15325020490255322>
- Pivar, I. L., & Field, N. P. (2004). Unresolved grief in combat veterans with PTSD. *Journal of Anxiety Disorders, 18*(6), 745–755. <http://dx.doi.org/10.1016/j.janxdis.2003.09.005>
- Power, S. A., Velez, G., Qadafi, A., & Tennant, J. (2018). The SAGE model of social psychological research. *Perspectives on Psychological Science, 13*(3), 359–372.
<https://doi.org/10.1177/1745691617734863>
- Prigerson, H. G., Bierhals, A. J., Kasl, S. V., Reynolds, C. F., Shear, M. K., Day, N., ... Jacobs, S. (1997). Traumatic grief as a risk factor for mental and physical morbidity. *American Journal of Psychiatry, 154*, 616–623. <https://doi.org/10.1176/ajp.154.5.616>
- Prigerson, H. G., Bridge, J., Maciejewski, P. K., Beery, L. C., Rosenheck, R. A., Jacobs, S. C., ... Brent, D. A. (1999). Influence of traumatic grief on suicidal ideation among young adults. *American Journal of Psychiatry, 156*(12), 1994–1995. Retrieved from <https://ajp.psychiatryonline.org/doi/10.1176/ajp.156.12.1994>
- Skipper, L. D., Forsten, R. D., Kim, E. H., Wilk, J. D., & Hoge, C. W. (2014). Relationship of combat experiences and alcohol misuse among US special operations soldiers. *Military Medicine, 179*(3), 301–308. <https://doi.org/10.7205/milmed-d-13-00400>
- Stroebe, M., Stroebe, W., & Abakoumkin, G. (2005). The broken heart: Suicidal ideation in bereavement. *The American Journal of Psychiatry, 162*(11), 2178–2180.
<https://doi.org/10.1176/appi.ajp.162.11.2178>
- Stroebe, M., Schut, H., & Stroebe, W. (2007). Health outcomes of bereavement. *The Lancet, 370*(9603), 1960–1973. [http://dx.doi.org/10.1016/S0140-6736\(07\)61816-9](http://dx.doi.org/10.1016/S0140-6736(07)61816-9)

- Toblin, R. L., Riviere, L. A., Thomas, J. L., Adler, A. B., Kok, B. C., & Hoge, C. W. (2012). Grief and physical health outcomes in US soldiers returning from combat. *Journal of Affective Disorders, 136*(3), 469–475. <https://doi.org/10.1016/j.jad.2011.10.048>
- Wortman, C. B., & Silver, R. C. (1989). The myths of coping with loss. *Journal of Consulting and Clinical Psychology, 57*(3), 349–357. <https://doi.org/10.1037/0022-006X.57.3.349>
- Xue, C., Ge, Y., Tang, B., Liu, Y., Kang, P., Wang, M., & Zhang, L. (2015). A meta-analysis of risk factors for combat-related PTSD among military personnel and veterans. *PLOS ONE, 10*(3), e0120270. <https://doi.org/10.1371/journal.pone.0120270>

EPILOGUE

This dissertation started with a conversation.

It started with a conversation I had with a U.S. Army veteran about the fact that his division had the highest combat casualty rate at one point during the wars in Afghanistan and Iraq and the highest suicide rate at another point during these conflicts. As he told me this I realized that I had never heard anyone talk about this, had never seen any research on the topic, and in my former life as a photojournalist, I had never bothered to turn my attention to the comrades when I was covering the funeral of someone killed in combat.

However, as I look back, it was not only that conversation that started me on the path to this dissertation. My interest in grief due to war-time loss may have started the day I held a slain soldier's dog tags in my hands after his mother gave a copy of them to me because "I give them to people I think deserve them."

It may have started 2005, the day I learned that a U.S. Army sniper shot Yasser Salihee, a bespectacled mild mannered Iraqi physician who was working as an interpreter for journalists in Baghdad at the beginning of the war. I had worked with Yasser when I was in Baghdad in 2004. His mild manner and ever-present sly smile were a comfort amid the chaos that erupted at times.

The evolution of this study may well have commenced the day U.S. Army Sgt. Frank Sandoval died. Frank suffered a severe Traumatic Brain Injury when his vehicle hit an Improvised Explosive Device (IED) while he and his unit were patrolling in Iraq. I met Frank shortly after he arrived at the polytrauma unit at the VA hospital in Palo Alto, where I was seeking permission to document the recovery of a service member wounded in the war. For 9 months I followed Frank's recovery, photographing his physical, occupational, and speech therapy. I told the story not just of his recovery, but his wife's role in it as well. When Frank returned home to Yuma, Arizona, I was there, photographing the crowd that gave him a hero's

welcome home. And I was there again when Frank returned to Palo Alto for routine surgery to place a bone flap over the part of his skull that had been excised after his injury in order to give the brain room to swell. I last saw Frank as he was heading to surgery. Throughout the week, he had been saying he was afraid he would “go to sleep and never wake up.” I was there when he crossed himself in pre-op. Later I listened to him tell the anesthesiologist — as she wheeled him to the operating room — about the day he was wounded. “We’ll take good care of him,” she said to me as they disappeared through the double doors of the operating room. And I was with his wife, Michelle, when the surgeon told her about Frank’s brain swelling after surgery. And I was there when they gave her the news that he would never wake up.

I have come to understand grief over war in an even more personal way. Ironically, I had just begun my field work interviewing veterans about their losses and attempting to recruit more participants when I received a phone call that the veterans themselves have received all too often: a friend and former colleague had been killed in Afghanistan. David Gilkey, with whom I had worked as a photojournalist at the *Detroit Free Press*, was killed during an ambush in Afghanistan in 2016. David was a videographer for National Public Radio (NPR), which supplements its audio broadcasts with visual storytelling featured on its website. Like many of the veterans, David had been repeatedly deployed to war zones. In his case, it was not the military deploying him of course; but like many veterans he was drawn to return to the conflict with a sense of mission. Telling the story of war, putting a human face on its tragedy, was his mission. I also suspect that like many veterans with whom I have spoken, he felt more at home in the war zone than on the home front. If someone asked me about David’s death, again like many of the veterans I interviewed said of their comrade, I would say David died doing what he loved and what he felt he was born to do.

Thus, the narratives that emerged from these interviews have struck such a chord in me, in a way that has touched my very being. When I read stories about Memorial Day in the newspaper or hear commentary about the sacrifices made by troops who have fallen in battle, my first thought is what about those who fought alongside them but survived? What about their grief and their guilt? I asked myself the same question after a newscaster concluded a recent pre-Memorial Day moment of silence in memory of those who have died in U.S. wars by saying we should also think about their families. What about their comrades? Their military family? Their brothers? Their tribe?

Veterans may have survived the incidents that killed their comrades and may have returned home from their deployments physically unscathed. However, as I hope this dissertation has made clear: they continue to battle the demons left behind by those losses. And, many, as we all know, will eventually lose the battle on the home front. Based on the current trends, some will take their own lives just as someone took the lives of their comrades. It is the responsibility of scholars and clinicians to minimize that risk. We have seen the public health consequences of the Vietnam War reflected in the faces of many of the nation's homeless – a condition brought on largely by PTSD, other mental illness, and the substance abuse that for many veterans began in the jungles of Vietnam. But what we may also see reflected in the faces of homeless veterans is the failure to explore all possible consequences of their service in combat. Just as many members of the military say, “leave no man behind;” scholars should have a similar refrain: leave no outcome of the war unexplored.