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Pepperdine University
Graduate School of Education and Psychology

THEMES OF MORAL INJURY IN TRAUMA EXPERIENCES OF VIETNAM
COMBAT VETERANS: A QUALITATIVE EXAMINATION OF THE NVVRS

A clinical dissertation submitted in partial satisfaction
of the requirements for the degree of
Doctor of Psychology

by

Alison Flipse Vargas

August, 2012

David Foy, Ph.D. – Dissertation Chairperson

This clinical dissertation, written by

Alison Flipse Vargas

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

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DEDICATION

To my husband

ACKNOWLEDGEMENTS

I would like to extend my heartfelt gratitude to my dissertation chair, Dr. David W. Foy. His dedication to trauma research is an inspiration, and his support, guidance and patience were invaluable. I would also like to sincerely thank my committee members, Drs. Kent Drescher and Robert de Mayo, for providing their own unique perspectives which made this dissertation possible.

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Most of all, I would like to thank my husband, John, for his patience and love throughout my academic career, and for always believing in me.

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ABSTRACT

In the hopes of broadening our understanding of traumatic events, Litz et al. (2009) introduced moral injury (MI), defined as “perpetrating, failing to prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations” (p. 6). Although Drescher et al. (2011) interviewed trauma experts to identify types of events which could create MI, it is unknown how prevalent these themes are within a military context. Therefore, this qualitative study identifies the themes of traumatic events reported by a 100 randomly selected members of the Combat Subsample within the National Vietnam Veterans Readjustment Study (NVVRS), and compares these themes to those developed in the Drescher et al. (2011) study. Themes of traumatic events included Accidents, Combat, Natural Disaster, Family Accident or Death, Fight or Assault, Non-combat Injuries or Death, and Psychosocial High Magnitude Stressors. Although MI was not identified by coders as a major theme, 15 potential MI events were identified by principle investigators within the data. These findings support the concept of MI as related to combat veterans.

Introduction

For the last 3 decades, veterans of the Vietnam War have been extensively studied, especially in terms of their psychological health. The current wars in Iraq and Afghanistan bear some similarities to the Vietnam War, particularly in terms of length and of the guerilla nature of the enemy combatants. As such, there has been renewed interest in the psychological consequences of engaging in this type of warfare. The National Vietnam Veterans Readjustment Study (NVVRS) represents a unique dataset which presents ample opportunity for studying issues faced by veterans both during and after service in the Vietnam War (Kulka et al., 1990).

The NVVRS was a congressionally mandated epidemiological study conducted between 1986 and 1988 using a randomly selected, stratified, nationally representative sample of U.S. Vietnam era veterans (Kulka et al., 1990). The total sample included 3016 Vietnam era veterans drawn from the 8.2 million veterans who had been on active duty during the Vietnam War. African American and Hispanic men, women, and veterans with service connected disabilities were intentionally oversampled in the study. The sample included 1200 men and 432 women who served in the Vietnam Theater (Vietnam Theater subsample), including Vietnam and its surrounding regions, between August 5, 1964 and May 7, 1975. The 1200 men who served in the Vietnam Theater are the Combat subsample. All veterans were individually questioned in their homes for approximately 5 hours on pre-military, military and post-military variables, via both self-report measures and clinical interviews. The initial NVVRS results, which were published in 1990, revealed that the lifetime Posttraumatic Stress Disorder (PTSD) prevalence rate for Vietnam Theater veterans was approximately 31% for males and 27%

for females, with current approximate rates of 15% and 9% respectively (Kulka et al., 1990). An additional 11% of male and 8% of female Vietnam veterans had significant stress reactions that did not meet criteria for PTSD, and PTSD was related to other post-war readjustment problems, including other psychiatric disorders (Kulka et al., 1990). Poor post-war adjustment was significantly higher for veterans who had high levels of exposure to combat and other war-zone stressors (Kulka et al., 1990).

However, the NVVRS results have been the source of some controversy. The two main criticisms involve the reliance on self-reports of combat exposure and the rates of PTSD, which are significantly higher than the rates found by the Vietnam Experience Study (VES) conducted by the Center for Disease Control (CDC), which was published a few years earlier (CDC, 1988; Dohrenwend et al., 2007; McNally, 2006; McNally, 2007; Schlenger et al., 2007; Thompson, Gottesman, & Zalewski, 2006). However, when independent sources (e.g. 201 files and reports about battles from the era) were used to verify combat exposure, the veterans' self-reports were highly correlated with independent sources, with some tendency towards underestimation of combat exposure (Dohrenwend et al., 2007; Schlenger et al., 2007). To address concerns that the PTSD estimates from the NVVRS are inaccurate, Dohrenwend et al. (2007) attempted to eliminate false positives by adjusting for documented war-related onset and exposure, as well as impairment in functioning (which became part of the diagnostic criteria for PTSD in DSM-IV), which produced rates of 9% current and 19% lifetime prevalence. However, this rate is adjusted only for false positives, not false negatives, which suggests that it may be an absolute lowest bound for PTSD, and the lowered rates of PTSD may be attributed to changing the criteria for diagnosis rather than any indication that the original

rates were inaccurate or based on dishonesty by the veterans (Dohrenwend et al., 2007; Schlenger et al., 2007). Additional research attempting to reconcile the findings of the VES with the NVVRS found that the differences in prevalence rates of PTSD could be explained by different instrumentation and by the CDC's emphasis on specificity, thus increasing false negatives, while the NVVRS emphasized sensitivity, thus increasing false positives (Thompson et al., 2006). This study also confirmed that the NVVRS provided more accurate estimates of the PTSD rates because they used more probes into symptoms of PTSD (Thompson et al., 2006). Taken together, these studies suggest that the NVVRS estimates of PTSD rates are likely to be accurate when using DSM-III-R criteria for diagnosis, but somewhat elevated when DSM-IV criteria are used.

Since the initial results of the NVVRS were published, the data has been examined for additional factors that correlate with PTSD. PTSD has been associated with exposure to atrocities, combat exposure, perceived threats, perception of a harsh environment, minority status and having killed during the war (Dohrenwend, Turner, Turse, Lewis-Fernandez, & Yager, 2008; King, King, Gudanowski, & Vreven, 1995; Kulka et al., 1990; Laufer, Gallops, & Frey-Wouter, 1984; Lewis-Fernandez et al., 2008; MacNair, 2002; Maguen et al., 2009). Additional research with other samples of veterans from Vietnam as well as the wars in Iraq and Afghanistan has supported the association of atrocity exposure, traumatic events which may or may not be related to military service, combat exposure and combat guilt with the diagnosis of PTSD (Beckham, Feldman, & Kirby, 1998; Clancy et al, 2006; Foy, Sippelle, Rueger, & Carroll, 1984; Henning, & Frueh, 1997; Hoge et al., 2004; Kubany, Abueg, Kilauano, Manke, & Kaplan, 1997; Stein et al., 2005; Yehuda, Southwick, & Giller; 1992). These findings

suggest that soldiers involved in combat are exposed to events that have an impact beyond the scope of PTSD.

In addition to a physical and psychological toll, war experiences have an effect on veterans' spiritual and moral values and identity. War experiences are broader than combat and include the various ethical and moral challenges faced during deployment (Drescher et al., 2011; Litz et al., 2009). To capture the complex psychological, social and spiritual effects of being faced with these types of traumas, the term *moral injury* has been coined (Litz et al., 2009). Moral injury occurs when an individual experiences distress due to their involvement in, observation of, hearing of or failing to prevent acts that transgress their deeply held moral and ethical standards (Drescher et al., 2011; Litz et al., 2009). This may be particularly likely to happen during warfare because of necessity for soldiers to disengage and behave in ways that violate their own moral codes, such as by killing others (Bandura, 1999; Bandura, 2002). Wars like Vietnam which involve guerilla warfare make it difficult to distinguish friends from enemies, which may increase the likelihood of morally injurious events.

There is limited research on the impact of inflicting injury or death on the psychological and spiritual functioning on the perpetrators of these events, particularly for those who did so while adhering to sanctioned behaviors (i.e. following military commands, Drescher et al., 2011). Trauma research has traditionally focused on the victims of trauma, but those who commit acts that violate societal norms have been largely overlooked. However, current research has found that committing atrocities and even sanctioned war-zone killings result in symptoms beyond the criteria for PTSD (Ford, 1999; Maguen et al., 2009; Singer, 2004). Many veterans from Vietnam as well as

Iraq and Afghanistan also show symptoms of extreme stress beyond what is encompassed by PTSD, including depression, anhedonia and dysphoria, guilt, poor readjustment to civilian life, extreme affect and impulse dysregulation, pathological dissociation, somatization, marital distress, and alterations in beliefs about the self and relationships (Ford, 1999; Foy et al., 1984; Henning, & Frueh, 1997; Hoge et al., 2004; Kashdan, Elhai, & Frueh, 2006; Kashdan, Elhai, & Frueh, 2007; Kaylor, King, & King, 1987; Kulka et al., 1990; Maguen et al., 2009; Martz, Bodner, & Livneh; 2009; Renshaw, Rodebaugh, & Rodrigues; 2010). Additionally, some veterans may display a change in their spirituality and ethical attitudes and behaviors (Drescher et al., 2011). Although some of these symptoms are included in the associated features for PTSD, experts in the trauma field agree that PTSD is not sufficient to cover these symptoms, and that the concept of moral injury is necessary to encompass symptoms including psychological, social and spiritual problems (Drescher et al., 2011). These experts suggested that moral injury would occur following events which involved betrayal, inappropriate or disproportionate violence, incidents involving civilians, and within-rank violence (Drescher et al., 2011).

Because moral injury is a new concept, associated research has been theoretical (Litz et al., 2009; Drescher et al., 2011). Experts in trauma treatment and research have developed the construct based on what they have seen in the treatment of veterans. Therefore, this study sought confirmation of the moral injury concept using the NVVRS database. The NVVRS included a series of questions about traumatic events, prompting the veterans to describe any events that they had considered traumatic. In this study, the NVVRS database was used to compare veterans' experiences with traumatic events with

the experts' predictions of events that would be morally injurious. The research questions for the study are as follows:

1. What themes are present in the Vietnam Combat Veterans' descriptions of traumatic events?
2. Are there differences in themes between war-related and non-war-related traumatic events?
3. How do these themes relate to the themes of moral injury described by experts in the trauma field?

Methods

Participants

This archival study utilized data from the NVVRS (Kulka et al., 1990). The NVVRS interview lasted an average of 5 hours and covered pre-military, military and post-military characteristics and functioning. The full sample was a nationally representative of 3016 veterans and civilians from the Vietnam era, including a subsample of 1632 Vietnam Theater veterans, consisting of 1200 men and 432 women. The 1200 men make up the Vietnam Combat subsample of the NVVRS. Because this study focused on the themes of traumatic events experienced by those serving in a warzone, a randomly selected sample of 100 participants from the Vietnam Combat subsample was used.

The NVVRS assessed exposure to traumatic events during the initial interview.

The interviewers read the following script:

Now we'd like to talk about unusual events that are extraordinarily stressful or disturbing – things that do not happen to most people but when they do they can be frightening, upsetting, or distressing to almost everyone. By that I mean things like being in a war or heavy combat, being physically assaulted or raped, being in a major earthquake or flood, or a very serious accident or fire, seeing other people killed or dead, or some other type of disastrous event.

Interviewers were directed to emphasize the words extraordinary, unusual and disastrous to impress upon the participants the nature of the desired responses. Participants were then asked 11 questions about specific types of events, including each of the examples in the introduction and encouraged to share any other 'very stressful' events. Those who answered 'yes' to any of the 11 questions were given follow up questions about the specific details of the events, such as the dates. Participants provided an open ended account of each event, and no limitations were placed on the number or types of events

reported. The participants were responsible for deciding whether or not an event was traumatic.

Design and Procedures

The study utilizes an archival research approach to explore the themes of traumatic experiences reported by veterans of the Vietnam War. It is a qualitative investigation of the Traumatic Events portion of the NVVRS interview, particularly the open-ended items regarding trauma experiences. Participants in the study included a subset of the Vietnam Theater subsample of the NVVRS dataset. Participants' informed consent was obtained during the interview process for the NVVRS. Prior to gaining access to the de-identified data archive, approval for human subject research was obtained from the Pepperdine University Graduate and Professional Schools IRB. Because the NVVRS is a public database, the consent of the original researcher was not necessary before using the archive.

Analysis of Data

Responses to open-ended questions regarding traumatic events were analyzed and coded for themes. The initial coding was completed by 2 coders who were blind to the themes from the Drescher et al. (2011) study. The coders were both graduate students in Psychology. These two coders were given Excel files with the responses of the 100 randomly selected Combat Veterans, and were instructed to code these responses individually in several steps. First, all of the responses were read and categorized into major themes. Next, all responses were reviewed and coded using these major themes

(Hsieh, & Shannon, 2005). Finally, all the items in each code were reviewed to ensure consistency in the themes (Hsieh, & Shannon, 2005). At this point, themes were split or combined as appropriate. The coders were presented their instructions in an initial letter (see Appendix B), and any questions were addressed by a member of the research lab.

After each coder finished these steps individually, the 2 coders met with a third individual who was also blind to the Drescher et al. (2011) themes to discuss final code list. The coders were directed to combine or split codes until both were satisfied that they had created a list that was as short as possible while still being comprehensive. They were instructed to individually apply this code list to the data, and then the data from each was sent to the principle investigator.

The principle investigator input the data from each coder into Hyper Research 2.8.3 for further analysis. When the two initial coders disagreed on how to code individual items, or when the investigator disagreed with the code assigned by the coders, discrepancies were resolved through discussion and consensus of the principle investigator and the dissertation lab. Once this process was complete, all items within each code were examined for consistency, and any discrepancies were resolved through the same process. The principle investigator also created subcodes within each major code (e.g., Combat - Gunfire or Ambush) to aid with further analysis of data. Again, once this process was concluded, all items within each subcode were checked for consistency and any discrepancies were resolved through discussion and consensus of principle investigator and the dissertation lab.

The frequency and extensiveness of each theme were calculated. Frequency (F) was defined as the total number of times a given code or subcode was used, while

Extensiveness (E) was the total number of participants who had at least one response within a code. Because none of the codes identified by the initial coders included the themes from the Drescher et al. (2011) study, the principle investigator and the dissertation lab members identified potentially morally injurious events through consensus, and further analysis was conducted on these events.

Results

Frequency and Extensiveness

Of the 100 participants in this study, 12 either refused to answer the question or had no traumatic events to report, leaving 88 individuals who gave responses that could be interpreted, for a total of 385 responses. Of those 385 responses, 6 were uninterpretable (e.g., “IWA”) and 5 were refusals from individuals who had given at least one other response, leaving 374 responses to be coded for themes. Each response was given only one code and one subcode. Table 1 summarizes the results of this coding. There were seven major categories of themes, each of which had several subcodes. The seven major codes were: Accidents, Combat, Natural Disaster, Family Accident or Death, Fight or Assault, Non-combat Injuries or Death, and Psychosocial High Magnitude Stressors.

The most common code, in terms of both frequency and extensiveness, was Combat. Combat related traumas were reported by 66 of the 100 respondents, and there were a total of 129 exemplars, or 35% of the codable responses. Examples of this code include “A civilian killed in Vietnam,” “Being shelled – by either side,” “On patrol in Nam,” and “Losing my right leg.”¹ These were subcategorized into four areas: Others Injured or Killed, Self Injured, Gunfire or Ambush, or Nonspecific.

The next most commonly reported traumas were Accidents, which included 67 responses (18% of all codable responses) from 39 individuals. These included “Truck

¹ All direct quotes were obtained from the NVVRS dataset. Kulka, R. A., Schlenger, W. E., Fairbank, J. A., Hough, R. L., Jordan, B. K., Marmar, C. R., ... Weiss, D. (1988). National Vietnam veterans readjustment study. Unpublished raw data

Accident,” “Construction accident,” “Hit a pier with my boat,” “Plane crashes,” and “Almost drowning”. Accident subcodes were Vehicle, Work, Boat, Plane, and Other.

Natural Disasters were the third most common trauma type, including 50 exemplars (13% of codable responses) across 36 respondents. This included Fires, Tornadoes, Floods, Hurricanes, Earthquakes and one Blizzard.

The fourth code was Family Accident or Death, which had an F of 41 (11% of all codable responses) and an E of 32. Exemplars varied from vague (e.g., “Father died”) to specific (e.g., “My mother passed away – Sudden heart attack”). Many responses included some form of violence (e.g., “Someone murdered my brother”). Subcodes of this category included Family Death due to Accident, Family Death due to Violence, Family Death due to Suicide, Family Death due to Health Problem, Family Death NOS, and Family Accidents, which lacked any clear lethality (e.g., “My sister’s accident”).

Next, 37 responses (10% of codable responses) across 21 individuals were coded as Psychosocial High Magnitude Stressors. This included events that were stressful for the individual, but would not be considered ‘traumatic’, such as divorces, arrests, or work stresses. Exemplars included “Dad’s illness,” “Administrative headaches,” and “Sex”. Subcodes included Family Troubles, Work Related Stress, Arrests, Substance Abuse, Racism, Childhood Memories, Neighbor Problems, Post War Stresses, and an NOS category.

Non-combat Injuries or Deaths were reported in 28 responses across 23 participants, for a total of 8% of all codable responses. These responses either included no clear reference to taking place during Vietnam, or were clearly civilian related. Some examples include “Women burned up in house,” and “Car wreck, close friend killed, I

was driving”. These responses were subcategorized as Injury or Death of Others and Injury of Self.

Finally, Fights or Assaults were reported 24 times by 19 individuals, for a total of 6% of all codable responses. This included being assaulted and seeing others assaulted or in a fight. Examples of these codes include “fight in Australia,” “friend beaten up,” and “I was robbed.”

Moral Injury

The two initial coders did not identify any themes of Moral Injury as either primary codes or subcodes. However, when the principle investigator and the dissertation lab members examined the data, several responses reflected the themes reported in the Drescher et al. (2011) study. The Drescher et al. themes included: Betrayal (including leadership failures, betrayal by peers or trusted civilians, or failing to live up to one’s own moral standards), Disproportionate Violence (including mistreatment of enemy combatants and acts of revenge), Incidents Involving Civilians (including destruction of civilians’ property and assault), and Within-Rank Violence (including military sexual trauma, friendly fire and fragging).

In total, 15 responses from 14 individuals were identified as being possible morally injurious events, for a total of 4% of all codable responses. The most common subcode was Civilian Deaths (F of 8, E of 7). Examples of this code included “Working civilians soldiers killed,” “Mama San and Papa San killed on a bridge,” and “Killing civilians.” Friendly Fire was reported 3 times by 3 separate individuals (e.g., “Walking in rice paddies and received ‘friendly fire’”). Three responses were coded as betrayals,

including “Kid trying to steal hand grenade” and “Laughing at people being killed.” Finally, one person reported the death of a prisoner. All 15 responses were from the major code Combat.

Research Questions

1. *What themes are present in the Vietnam Combat Veterans’ descriptions of traumatic events?*

There were seven major categories of themes reported by Vietnam Combat Veterans: Accidents, Combat, Natural Disaster, Family Accident or Death, Fight or Assault, Non-combat Injuries or Death, and Psychosocial High Magnitude Stressors.

2. *Are there differences in themes between war-related and non-war-related traumatic events?*

Vietnam Combat veterans described both war-related and non-war-related events as traumatic. War-related events made up over 1/3 of all responses, and were reported by 2/3 of the participants. Injuries (of self and others) and death were reported as traumatic both in war-related and non-war-related events, but war-related events included some traditional combat experiences (e.g., being shot at) as well. Non-war-related events also frequently included car accidents or natural disasters, as well as events which would not traditionally be considered traumatic (e.g., divorce).

3. *How do these themes relate to the themes of moral injury described by experts in the trauma field?*

Although the coders did not identify moral injury as a major code of traumatic events, there were 15 events reported by 14 individuals which represented possible moral injuries. These events were coded as Civilian Deaths, Friendly Fire, Betrayals, and Death of a Prisoner, which were consistent with the Drescher et al. (2011) themes of Incidents Involving Civilians, Within-Rank Violence, Betrayals, and Disproportionate Violence. No new themes of possibly morally injurious events were identified.

Discussion

The first two research questions are related to the general findings of the study, whereas the third addresses the question of how these findings relate to the concept of moral injury. First, there were seven major categories of themes identified by the coders: Accidents, Combat, Natural Disaster, Family Accident or Death, Fight or Assault, Non-combat Injuries or Death, and Psychosocial High Magnitude Stressors. These themes each represented the major categories of events that Vietnam Combat Veterans reported as being traumatic. Each had several subcategories as well.

In terms of the second question, both war-related and non-war-related events were reported by the veterans. War-related events were reported by 2/3 of the participants and made up 1/3 of all responses. It is notable that injuries and death were included in the Accidents, Family Accident or Death, Non-combat Injuries or Death and Combat themes, suggesting that death and loss are widely considered traumatic no matter the circumstances (e.g., due to an accident, combat or illness). The data for this study was collected many years after the end of the Vietnam War, and yet these combat veterans still felt that many of these traditional warzone experiences were extraordinarily stressful events, suggesting that these merit clinical attention in their own right.

Both war-related and non-war-related themes included events which are not traditionally considered as meeting Criterion A for PTSD, such as traditional combat experiences (e.g., being shot at) and interpersonal problems (e.g., divorce, discrimination, etc). This supports the need for the broader conceptualization of trauma, including moral injury, because these events would not necessarily qualify for a PTSD diagnosis but were nevertheless experienced as highly traumatic. These combat veterans described these

events as being ‘extraordinarily stressful or disturbing,’ which suggests that they have had a long term impact on the veteran’s life despite not being a Criterion A event. For instance, some of the soldiers described experiences of discrimination in the US, and these events were frequently reported by the same individuals who reported combat-related events. This suggests that the events had some significant impact on the individual, and yet these sorts of events would not be captured by the PTSD diagnosis.

The final question related to moral injury, and specifically whether or not the coders identified themes of moral injury as major codes. It should be noted that the original coders did not identify any themes of moral injury within the data. There are several potential explanations for this finding. Firstly, the coders were encouraged to create as few categories as possible when coding the responses. Given the low prevalence of potentially morally injurious events reported by the sample (approximately 4% of all responses), these events may have been more logically folded in to other categories. All 15 events were actually identified as being part of the major code Combat, which was a very common and very broad categorization. Secondly, the coders were all blind to the concept of moral injury, but not to PTSD diagnostic criteria. The original data was collected with the intention of identifying Criterion A events, and it may be that such events stand out as organizational themes when coding the data. Finally, it may be that because the coders were blind to the concept of moral injury and were not trauma experts, they had little reason to identify these specific types of events as being significant or similar. On the surface, the events may look rather different (e.g., being under friendly fire versus killing civilians), and the similarities may not be apparent

to those without previous exposure to this conceptualization and/or trauma treatment experience.

Although the coders did not identify any themes of moral injury, the principle investigator and the dissertation lab were able to identify 15 events reported by 14 individuals as being possible moral injuries. These events were all combat-related, and were coded as Civilian Deaths, Friendly Fire, Betrayals, and Death of a Prisoner, which were consistent with the Drescher et al. (2011) themes of Incidents Involving Civilians, Within-Rank Violence, Betrayals, and Disproportionate Violence. Thus, the findings within the NVVRS were consistent with the experiences of experts in the field. While many of these events would qualify as Criterion A events for a PTSD diagnosis, not all of them would. This further supports the need for the concept of moral injury as something broader than PTSD. Although this study did not examine the psychological complaints associated with any of these events, the identification of these types of events as traumatic supports the idea that they have a lasting impact on the individual, and that there may be significant moral struggles for these individuals lasting for years. It is notable that all 15 events were combat related. This suggests that there may be something particular to combat exposure which makes moral injury more likely to occur; possibly due to the continuous life threats, deprivation, or even the lack of control over choices in daily life (e.g., where to go, when and whom to shoot at, etc).

The findings of this study support the concept that moral and ethical violations can be long lastingly injurious to war veterans, even when they do not fit into traditional conceptualizations of trauma. Traditionally, trauma research and treatment has focused on the consequences of being the victim of violence, but during the course of their

military service, these men were required to perform acts in conflict with their own deeply ingrained sense of right and wrong. Many of the traumatic events reported by these veterans included traditional combat experiences, such as being involved in a firefight, which supports the idea that even sanctioned killings have a long term impact on the perpetrators. While these were not coded as moral injuries, other experiences were, including being under friendly fire, or personal betrayal, such as laughing while people are getting killed. The lasting impact of these events on these veterans speaks to the importance of addressing moral and ethical dilemmas faced by combat veterans during psychological treatment, and to the importance of considering a bio-psycho-social-spiritual model of mental health functioning. Because this study did not include any mental health outcome measures, it is difficult to speak to the long term impact of these morally injurious events. However, the events were clearly considered significant to the veterans even years later, which supported the assertions of the trauma experts interviewed in the Drescher et al. (2011) study. It is important to note that this study was conducted as one of three related studies within one research lab, and the studies are best interpreted together. The first was a study utilizing the same procedures, but with the Era veteran population (Hanson, 2012) and the second examined the same combat veterans as this study but explored psychological and spiritual outcomes (Kraus, 2012). More information about the relationship between the studies can be found in Appendix B.

This study serves as a preliminary investigation of the types of events reported as traumatic by male Vietnam combat veterans, including a discussion and exploration of those events consistent with the concept of moral injury. There is little empirical research on moral injury, and this study serves to support the viability of the concept as

applied to veterans of the Vietnam War. This study also opens avenues for further exploration. Future research should focus on veterans of other wars, female veterans, and civilians to expand and refine our conceptualization of moral injury. Additionally, an objective measure of moral injury, including both the causes and the sequelae, is necessary for more in depth future quantitative research.

Several methodological issues may have potentially influenced the findings of this study, particularly due to the use of archival data. Firstly, the investigator was unable to ask study participants additional questions to clarify any questions about their responses, fill in missing data, or gather more details about the traumatic events. Secondly, the original investigators transcribed the audiotaped interviews, and it is not possible for the investigator to verify the accuracy of these responses. While there were some critiques of the original NVVRS methodology, most of those concerns revolved around the diagnosis of PTSD, which is unlikely to have impacted this study. However, the NVVRS study did rely on retrospective reports given during an interview close to a decade after the end of the war. Thus, the data is vulnerable to intentional or unintentional retrospective recall bias which would result in inaccurate reporting of traumatic events. It is unknown how reliable the participants' accounts are in the study. Additionally, the Traumatic Event section of the NVVRS interview relied on the participant to volunteer information about traumatic events. Participants may not have included certain experiences due to embarrassment, or because they did not recognize that the event could be considered traumatic. Finally, since the study focused on war-related traumatic events experienced by the Vietnam Theater Veteran males from the NVVRS, the results cannot be

generalized to other populations such as female veterans, veterans from other wars, or civilians.

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TABLES

Table 1.

Themes of Traumatic Events

| Major Code | Minor Code | Frequency | Extensiveness |
|--------------------------|--------------------------|-----------|---------------|
| Accidents | | 67 | 39 |
| | Boat Accident | 3 | 2 |
| | Motor Vehicle Accident | 54 | 37 |
| | Other Accidents | 2 | 2 |
| | Plane Accidents | 3 | 3 |
| | Work Accidents | 5 | 4 |
| Combat | | 129 | 66 |
| | Gunfire or Ambush | 42 | 20 |
| | Not Otherwise Specified | 24 | 21 |
| | Others Killed or Injured | 52 | 39 |
| | Self Injured Combat | 11 | 11 |
| Family Accident or Death | | 41 | 32 |
| | Family accident | 5 | 5 |
| | Family Death Accident | 9 | 9 |
| | Family Death NOS | 10 | 9 |
| | Family Death Violence | 6 | 6 |
| | Family Suicide | 3 | 3 |
| | Health Related Death | 7 | 7 |
| Fight or Assault | | 24 | 19 |
| | Others: Fight or Assault | 7 | 7 |
| | Self Assaulted | 17 | 13 |

(Continued)

| Major Code | Minor Code | Frequency | Extensiveness |
|---------------------------------------|--------------------------|-----------|---------------|
| Natural Disaster | | 50 | 36 |
| | Blizzard | 1 | 1 |
| | Earthquake | 4 | 4 |
| | Fire | 15 | 14 |
| | Flood | 10 | 10 |
| | Hurricane | 9 | 9 |
| | Tornado | 11 | 10 |
| No Response | | 13 | 12 |
| | Refused | 7 | 7 |
| | Uninterpretable | 6 | 5 |
| Noncombat Injuries or Death | | 28 | 23 |
| | Others Killed or Injured | 22 | 19 |
| | Self Injured | 6 | 5 |
| Psychosocial High Magnitude Stressors | | 37 | 21 |
| | Arrest | 2 | 2 |
| | Vague | 4 | 4 |
| | Family troubles | 19 | 12 |
| | Racism | 1 | 1 |
| | Substance Abuse | 1 | 1 |
| | Work Related | 5 | 4 |
| | Post War Stresses | 3 | 2 |
| | Neighbors | 1 | 1 |
| | Childhood | 1 | 1 |

Table 2.
Moral Injury

| Major Code | Subcode | Frequency | Extensiveness |
|--------------|-----------------|-----------|---------------|
| Moral Injury | | 15 | 14 |
| | Civilian Deaths | 8 | 7 |
| | Friendly Fire | 3 | 3 |
| | Prisoner Death | 1 | 1 |
| | Betrayal | 3 | 3 |

APPENDIX A

Instructions to Coders

Directions for Coding

1. In the excel files, all the respondents are separated into sheets. There are multiple responses but just one question.
2. Start on the sheet labeled 1-20. Read through all the responses.
3. Begin categorizing all responses into major themes. Start by generating as many themes as is possible. In excel, assign each theme a color and highlight the responses within each theme. Continue until all responses on the first sheet have been added to a theme. Create new themes or combine themes as necessary until all items are coded and you feel that there are as few themes as possible to capture each unique theme.
4. Move to the next sheet of 20 participants (21-40). Read through all of these responses. Assign themes, again highlighting all responses that belong in a single theme. Repeat this process with all the remaining sheets (participants 41-60, 61-80, 81-100, etc...); however, it is important that you:

Keep track of the themes from sheet to sheet, and make a note of which sheet you are on when you fail to develop new themes.

5. When you've coded everything, read through all the responses to a single theme, and make sure they are consistent. At this point, you may again choose to add or combine themes as necessary until you are satisfied that every item within a theme captures its meaning.
6. E-mail all your coding to Alison C. A meeting will be set up through Alison C. to discuss the codings, and address any discrepancies in themes between the group members.

If you have any questions, email Alison C or Alison Flipse Vargas.

Please let us know if there are any significant questions or concerns, and we can meet individually to make sure everyone is comfortable with the instructions for the task.

APPENDIX B

Statement of Related Dissertation Studies

Military combat involves a diversity of stressors that can affect service members in varying ways. To broaden the understanding of moral aspects of combat trauma experiences, Litz et al. (2009) introduced moral injury (MI), defined as acts that transgress deeply held moral beliefs and expectations. Drescher et al. (2011) recently conducted a qualitative examination of relationships between frequent combat experiences and expected moral consequences through military experts' judgments. Overall, Drescher et al. identified four major themes of potentially morally injurious events, including betrayal, disproportionate violence, incidents involving civilians, and with-in rank violence. In addition, social problems, trust issues, spiritual/existential issues, psychological symptoms, and self-deprecation were identified as thematic categories that may be signs or symptoms of MI.

The present dissertation was conducted as one of three related studies within a research lab in order to provide further empirical support for the MI construct. Therefore, it is recommended that the three studies be considered as a set and that the findings be interpreted together. The present study examined traumatic events reported by 100 Vietnam combat veterans from the NVVRS. Each participant was asked about any extraordinarily stressful events that they may have experienced, and their responses were coded for themes. Although the initial coding did not identify MI as a major theme, 15 responses from 14 individuals were identified as being potentially morally injurious events. To compare MI in combat versus non-combat veterans, a second study entitled "Themes of Trauma and Morally Injurious Events among Non Combat Veterans: A Qualitative Examination of the NVVRS" was completed by Thomas Hanson (2012). Hanson followed the same methodology as the current study with the exception of

utilizing the non combat veterans and twice as many participants (N=200). Consistent with this study, MI was not identified as a major theme following the initial coding. Conversely, only two responses from two participants were indicative of potentially morally injurious events.

The third study, entitled “Morally Injurious Symptomatology: A qualitative examination for themes found in the NVVRS” by Douglas Kraus (2012), examined the same sample of combat veterans as the current study but explored signs and symptoms of MI. Kraus focused on coding themes of participants responses to the questions: “In what ways has the Vietnam War affected your everyday life?” and “And, what were some of the negative things?” Although MI was not identified as a major theme during the initial coding, 43 signs and symptoms of MI were reported. The findings of the three studies extend the operational understanding and provide validation for the construct of MI. Most significantly, no additional themes of MI were identified suggesting that Drescher et al. (2011) provided a comprehensive list of themes associated with MI.

APPENDIX C

Literature Table Summary and Spreadsheets

Literature Table Summary

Although there are many studies on PTSD in veterans, the literature review focused on those studies looking at PTSD and depression, PTSD and associated features, and moral injury. This included: one meta-analysis, one qualitative study, three theoretical studies, 22 qualitative studies (11 from the NVVRS), and four literature reviews/critiques.

Of the 11 non-NVVRS quantitative studies, three focused on PTSD and related features in veterans of more recent wars, and nine focused on PTSD and related features in Vietnam veterans. Of these, three were published before the NVVRS, and were part of the driving force behind that study. The meta-analysis focused on PTSD rates in Vietnam veterans as reported across 67 studies, all published before the NVVRS.

There were 11 studies published directly from the NVVRS, including the initial publication of the general findings, plus four critiques. Most focused on PTSD rates with different sub-groups (e.g., Theater vets, Hispanics, etc), or under different circumstances (e.g., those exposed to atrocities). One looked at marital distress and PTSD symptom severity based on reports of both the veterans and their spouses. Two of the four critiques focused on the PTSD rates from the NVVRS, arguing that they were too high, especially when compared with the significantly lower rates reported by the CDC study from a few years earlier. The other two critiques addressed these concerns and ultimately reconciled the findings from the two studies as being due to differences in instrumentation and specificity versus sensitivity.

In terms of moral injury, there were only two published studies. The first was theoretical, and the second was qualitative. The other two theoretical studies focused on how a soldier could or would shut off their moral compass in order to survive.

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|---|---------------------------|--|---|---|
| Bandura (1999) | Theoretical | Describe methods of moral disengagement | | Described means of disengaging self from moral implications of actions |
| Bandura (2002) | Theoretical | Same principles | | Described means of disengaging self from moral implications of actions. Moral behavior is both proactive (acting morally) and inhibitive (not acting immorally). |
| Beckham, Feldman & Kirby (1998) | 151 vets at a PTSD clinic | Link between atrocities exposure, guilt, PTSD and violence | <ul style="list-style-type: none"> • Combat exposure scale • Mississippi PTSD scale • Atrocities exposure • Davidson trauma scale • Trauma related guilt inventory • Overall violence index | <ul style="list-style-type: none"> • Atrocities exposure was related to PTSD symptom severity and Global guilt • Atrocities exposure was not related with current interpersonal violence |
| Clancy, Graybeal, Tompson, Badgett, Feldman, Calhoun, Erkanli, Hertzberg & Beckham (2006) | 422 Male Vets at a VA | Does trauma exposure before, during or after military service contribute to current PTSD & functioning? Is pre-military trauma mediated or moderated in its effects by military trauma? | <ul style="list-style-type: none"> • Traumatic Life Events Questionnaire • CAPS • Combat Exposure Scale • Davidson Trauma Scale • Traumatic Life Events Questionnaire • AUDIT • BDI • Cook-Medley Hostility Scale • Self Reported Health | <ul style="list-style-type: none"> • 84% of the sample had 3 or more trauma exposures • 39% of the sample reported traumas other than combat exposure during military service. • Age, greater combat exposure, and a history of physical assault after military service, Childhood Physical abuse, adult sexual trauma & history of physical assault during the military were correlated with more severe PTSD symptoms. |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|--|---|--|--|---|
| Dohrenwend, Turner, Turse, Adams, Koenen & Marshall (2007) | NVVRs Male Combat subgroup (1200) and clinical interview subsample (260) | Re-examine the prevalence of PTSD in NVVRs to answer questions of skeptics | Looked at records for individual soldiers for verification of their answers in the NVVRs | <ul style="list-style-type: none"> • Very strong relationship between records based assessment of war zone exposure and self-report. • Little evidence overall for exaggeration or lying Found lowered PTSD prevalence (9.2% current, 18.7 lifetime) when rates were adjusted for war related onset, impairment in functioning and documented exposure (supported by independent sources). • Rates are lower due to a change in criteria, not initial error. |
| Dohrenwend, Turner, Turse, Lewis-Fernandez & Yager (2008) | NVVRs clinical interview subsample N =260; 248 used in sample (94 White, 70 Black, 84 Hispanic) | Examine why Black & Hispanic Vietnam Vets have higher rates of PTSD than White vets. | <ul style="list-style-type: none"> • SCID - war-related PTSD cases • War zone exposure • Risk Factors (age, lower Armed Forces Qualification Test, discrimination, post-Vietnam treatment by mental health professionals, unemployment, marital status) • Question about hostile events post war | <ul style="list-style-type: none"> • Current PTSD was directly related to severity of exposure. • When combat exposure is controlled for, rates of PTSD for Blacks & Whites become equivalent, but Hispanic rates are still elevated. • Hispanics' greater exposure, younger age, lesser education, and lower Armed Forces Qualification Test scores explains their higher levels of PTSD compared to Whites. |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|---|---|---|--|---|
| Drescher, Foy, Litz, Kelly, Leshner & Schutz (2011) | 23 individuals who work with veterans, including chaplains, mental health providers, academic researchers, and policymakers | <p>How do professionals view the construct of moral injury?</p> <p>What elements of war zone combat experience are most likely to produce moral injury?</p> <p>What are the signs and symptoms of moral injury?</p> <p>What types of intervention strategy might be useful?</p> | <p>Open ended interview responses were coded for themes, then frequency counts were made of those themes</p> | <ul style="list-style-type: none"> • There was universal agreement for the need for the concept of moral injury, but none of the experts liked the working definition as it stood • Most liked the term but several offered variations (e.g. spiritual injury, moral trauma, etc) • Themes in MI events included: betrayal, disproportionate violence, incidents involving civilians, and within-rank violence; • Themes in symptoms included: social problems, trust issues, spiritual /existential issues, psychological symptoms, and self-deprecation • Themes in interventions included: spiritually-directed, socially-directed, and individually-directed |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|---|--|--|---|---|
| Ford (1999) | 84 vets, mostly Vietnam, seeking inpatient tx at a PTSD center for combat vets | Determine if DESNOS is separate from PTSD in combat vets | <ul style="list-style-type: none"> • SCID for DSM III, • Structured Interview for Disorders of Extreme Stress, • Combat Exposure, Penn Inventory for PTSD, • Mississippi, • Impact of Event Scale, • Hopkins Symptom State-Trait Anxiety • BDI, • Dissociative Experiences Scale, • Social Cognition Object Relations Scale, • VA Medical Records | <ul style="list-style-type: none"> • Found that 60% of sample had PTSD • 60% had DESNOS • About 1/3 had both • Almost half of all with DESNOS didn't have PTSD • Supports this as separate but associated syndrome. |
| Foy, Sipprelle, Rueger & Carroll (1984) | 43 Vietnam Era Vets seeking treatment at VA | Impact of Premilitary, Military and Combat Exposures on PTSD | Created a combat scale, PTSD scale, and adjustment scale | <ul style="list-style-type: none"> • Combat exposure & military adj are related to PTSD & Post military adj. • Suggests that combat exposure is moderated by concurrent psychosocial support • Worse military adj could be caused by PTSD rather than the other way around |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|--|--|--|--|--|
| Hendin & Haas (1984) | 10 male combat vets without PTSD | Find protective factors that help vets with trauma histories avoid PTSD | Clinical interviews | <ul style="list-style-type: none"> Protective factors: ability to function calmly under pressure, understanding a rational to mission, acceptance of fear in self & others, lack of excessive violence & absence of guilt (no involvement in atrocities) |
| Henning & Frueh (1997) | 40 vets with combat PTSD | Examine relationship of guilt to PTSD | <ul style="list-style-type: none"> Revised combat scale, Mississippi Guilt Inventory, CAPS Combat Guilt Scale | <ul style="list-style-type: none"> More than half endorsed guilt related items, mostly related to acts of commission and omission. Severity of combat guilt was related to PTSD symptom severity, especially re-experiencing & avoidance symptoms. |
| Hoge, Castro, Messer, McGurk, Cotting & Koffman (2004) | 2530 army soldiers predeployment, 3671 army & marines 3-4 months after return from Iraq or Afghanistan | Assess the mental health of members of the armed services who served in these operations | <ul style="list-style-type: none"> Patient health questionnaire for MDD & GAD PTSD checklist 2 questions addressing alcohol abuse | <ul style="list-style-type: none"> Found higher rates of PTSD and MDD in Iraqi vets vs. predeployment & Afghani vets. PTSD correlated with combat experiences like being shot at, handling dead bodies, knowing someone who was killed, killing someone, and being injured. Different levels of PTSD in Iraq vs. Afghan appear to correlate with higher frequency and intensity of combat in Iraq |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|-------------------------------|--|--|--|---|
| Hsieh & Shannon (2005) | n/a | Description of 3 approaches to qualitative research | <ul style="list-style-type: none"> n/a | <ul style="list-style-type: none"> describes conventional content analysis as exploratory research, directed content analysis as following a theory, and summative content analysis as exploring usage. |
| Kashdan, Elhai & Frueh (2006) | 246 male combat vets being treated at a PTSD center | Explored the relationship between anhedonia and PTSD symptom clusters | <ul style="list-style-type: none"> CAPS BDI Clinical interview | <ul style="list-style-type: none"> High negative affect & low positive affect appear to reflect separate processes. Anhedonia had a positive relationship with PTSD emotional numbing symptoms. Greater anhedonia increased the likelihood of anxiety disorder diagnosis |
| Kashdan, Elhai & Frueh (2007) | 227 male combat vets with PTSD (mostly Vietnam vets) | Are negative sxns correlated with over reporting of PTSD symptoms? Are there any measurement differences depending on type of measurement | <ul style="list-style-type: none"> CAPS MMPI-2 BDI Mississippi Clinician interviews | <ul style="list-style-type: none"> Vets with greater anhedonia had greater likelihood of being a symptom over reporter; Over reporters were more congruent in their presentation of diminished positive affect across measures & raters; Could mean exaggeration (possibly for benefits) or an accurate report |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|--|---|---|--|---|
| Kaylor, King & King (1987) | Meta-analysis of 67 studies of Vietnam vets | Mental health outcomes of Vietnam vets - how to reconcile contradictory lit. | Multiple regression | <ul style="list-style-type: none"> Overall: Vets showed greater mental health problems than controls. Effect sizes were biggest when: <ol style="list-style-type: none"> pub date was later. VA or veterans groups ran the study. veterans combat exposure was documented and veterans were compared to general population |
| King, King, Gudanowski & Vreven (1995) | 408 male & female Vietnam vets from the NVVRS | <ul style="list-style-type: none"> How to conceptualize the criterion A for PTSD? Is experience for women different | <ul style="list-style-type: none"> Mississippi DIS Probability computation for PTSD Coded interviews for other variables | <ul style="list-style-type: none"> Found support for 1. atrocities, 2. traditional combat events, 3. Perceived threat & 4. Harsh environment as distinct factors that contribute to PTSD Different ways of understanding Criterion A. Men & Women were similar. |
| Kubany, Abueg, Kilauano, Manke & Kaplan (1997) | 5 studies used experts as well as vets to develop & validate the survey | Development & validation of the Trauma-Related Guilt Survey - War Zone version | <ul style="list-style-type: none"> Personal Feelings Trauma Related Guilt Inventory Mississippi PTSD checklist Impact of Event Scale Rosenberg Self-esteem Scale Social Avoidance & Distress Scale | <ul style="list-style-type: none"> Most common source of guilt was inaction rather than action - should have done more to save someone or prevent harm. Vietnam Vets have many sources of war related guilt Guilt is correlated with PTSD. |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|--|-------------------|--|---|--|
| Kulka, Schlenger, Fairbank, Hough, Jordan, Marmar & Weiss (1990) | NVVRS | Report of the results from the NVVRS study | Multimodal – interview & SR measures of multiple premilitary, military & postmilitary variables | <ul style="list-style-type: none"> • 15.2% of all male Vietnam theater vets are current cases of PTSD; 8.5% of Vietnam theater women were current cases of PTSD • an additional 11.1% of male and 7.8% of female Vietnam vets do not qualify for PTSD but likely need treatment for significant stress reactions • Lifetime PTSD prevalence was 30.6% of males and 26.9% of females • Strong relationship was found between PTSD and other postwar readjustment difficulties • PTSD & other adjustment problems are significantly higher among those with high levels of exposure to combat other war-zone stressors • Minority status increased risk for PTSD • PTSD as negative impact on life of spouse & children & others living with vets with PTSD • Substantial numbers of vets did not seek treatment |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|---|----------------------------------|---|--|--|
| Laufer, Gallops & Frey-Wouters (1984) | 350 Vietnam Veterans | <p>Examine effects of</p> <ul style="list-style-type: none"> • traditional combat • witnessing atrocities • participating in atrocities on psychological functioning of vets | <ul style="list-style-type: none"> • Combat scale • Abusive violence - open ended questions • Stress Scale • Psychiatric Epidemiology Research Instrument (PERI) | <ul style="list-style-type: none"> • Suggesting these three aspects of war should be studied separately • Exposure or participation in atrocities increased stress symptoms across the lifespan. • White vets who participated in abusive violence had lower levels of stress than blacks who participated or whites who only observed events - possibly due to dehumanizing the enemy effectively. |
| Lewis-Fernandez, Turner, Marshall, Turse, Neria & Dohrenwend (2008) | NVVRIS interview subsample (260) | <p>Are higher rates of PTSD for Hispanic males due to cultural expressiveness or reflective of true prevalence</p> | <ul style="list-style-type: none"> • SCID • Mississippi GAF • 4 items measuring current functioning • Combat exposure based on self-report and military records | <ul style="list-style-type: none"> • Elevations were found in PTSD rate even when controlling for combat exposure, particularly seen on the M-PTSD scales. • No increase in symptoms on the SCID, nor was over-expressiveness reflected in GAF • Suggests that there is a higher prevalence of PTSD for Hispanics than Whites independent of expressiveness |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|---|--|--|--|--|
| Litz, Stein, Delaney, Lebowitz, Nash, Silva & Maguen (2009) | N/A | Provide conceptual model of Moral Injury | Lit Review | <ul style="list-style-type: none"> Define moral injury (pg 6) Define moral repair Symptoms of chronic MI Treatment of MI in theory |
| MacNair (2002) | NVVRS Combat vets (1638) | Impact of killing & perpetration of atrocities on PTSD | <ul style="list-style-type: none"> PTSD measured by Mississippi Compared mean scores Also looked at battle intensity | <ul style="list-style-type: none"> Killing is predictive of higher MCS score. Atrocities are also predictive. Atrocities group raised mean of killing group, but killing is sig on its own. Battle intensity isn't explanation. Limits - General limits of NVVRS, didn't differentiate between volunteers & drafted men |
| Maguen, Metzler, Litz, Seal, Knight & Marmar (2009) | NVVRS Male Combat subgroup (1200) and clinical interview subsample (260) | Examine impact of killing on post war mental health | <ul style="list-style-type: none"> Multiple regression Mississippi MMPI-2 Pk scale DIS diagnosis of depression PERI traumatic scale Measures of current violence | <ul style="list-style-type: none"> Killing associated with PTSD, Dissociation, functional impairment & post war violent No link: killing & depression. Limits - used DIS diagnosis of Dep & not a range, didn't look at subcategories (like atrocities) sep. |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|-------------------------------|---------------------------------|---|---|---|
| Martz, Bodner & Livneh (2009) | NVVRS Vietnam Vet subset (1618) | Does coping predict long term adjustment, particularly in the context of disability & while controlling for demographics, PTSD, environmental conditions & Social support | <ul style="list-style-type: none"> • 25 items to assess coping style • 12 items to reflect psychosocial adaptation • Disability is based off single question • Mississippi • Homecoming warmth measured response when they returned • # of TEs reported | <ul style="list-style-type: none"> • Disabilities significantly predicted long term adjustment. • with a more severe disability, higher PS coping --> worse adaptation. With a less severe disability, higher PS coping --> better adaptation. |
| McNally (2006) | N/A | Critique of NVVRS findings | Lit review to critique NVVRS | <ul style="list-style-type: none"> • CDC Study found much lower prevalence of PTSD than NVVRS did • Dohrenwend showed PTSD rates were significantly overestimated in the NVVRS • Argue that only 15% of males were in combat units, therefore 30% couldn't have PTSD |
| McNally (2007) | N/A | Evaluate hypotheses for explaining the NVVRS results | <ul style="list-style-type: none"> • Lit review • Additional citations since his article a year before | <ul style="list-style-type: none"> • NVVRS too high, esp when compared to the CDC study • 1. lying 2. Noncombatants were exposed to trauma; 3. Criterion F wasn't part of DSM-III or NVVRS; 4. Retrospective data lends to reappraisals which may not be accurate |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|--|---|--|--|--|
| Renshaw, Rodebaugh & Rodrigues (2010) | 465 Vietnam Vets & their opposite sex partners | How does the spouse's perceptions of PTSD symptoms impact their psychological and marital health | <ul style="list-style-type: none"> Mississippi (both vets SR & Spouse perception) Marital problems Index Psychological distress index Physical health; | <ul style="list-style-type: none"> Spouse's perceptions of veterans' symptom severity was positively correlated with spouse's psychological & marital distress Distress was highest when the spouse perceived high levels of symptoms but the veteran perceived low levels; Attention should have been paid to false negatives when adjusting percentages of PTSD Combat exposure variable in NVVRS appears to be fairly accurate & possibly underestimation despite criticism from McNally CDC study is a poor basis for comparison b/c they used the DIS which has poor sensitivity to PTSD cases. Dohrenwend's article reported a fundamentally different definition of PTSD & represents a firm lower bound for PTSD prevalence; |
| Schlenger, Kulka, Fairbank, Hough, Jordan, Marmar & Weiss (2007) | NVVRS, Dohrenwend's article & the response from McNally | Response to critiques and evaluations of the NVVRS | Examined work by Dohrenwend & McNally | |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|---|-----------------------|---|---|--|
| Stein, Tran, Lund, Haji, Dashevsky & Baker (2005) | 120 Gulf War Veterans | Examined the combined & interactive effects of childhood trauma, lifetime trauma, avoidant coping, combat exposure & problem focused coping on PTSD | <ul style="list-style-type: none"> Childhood Trauma Questionnaire Traumatic Events Survey Combat Exposure Scale Coping Strategies Inventory Clinician Administered PTSD Scale Mississippi Structured interview | <ul style="list-style-type: none"> Combat exposure, lifetime trauma and avoidant coping were all significantly related to PTSD symptoms Problem focused coping was significantly related to less severe symptoms of PTSD Combat exposure moderated the effects of Childhood trauma on PTSD – higher combat exposure with lower childhood trauma higher PTSD symptoms; higher combat exposure with higher childhood trauma lower PTSD symptoms Combat exposure moderated the effects of avoidant coping on PTSD symptoms – avoidant coping was positively related to PTSD symptoms only when combat exposure was high |
| Thompson, Gottesman & Zalewski (2006) | NVVRs & CDC VES study | Examine the differences between the studies to try to reconcile the results | <ul style="list-style-type: none"> Modified DIS MMPI PTSD scale Mississippi scale with cut off of 94 Used previous 1 month instead of 6 months for current diagnosis | <ul style="list-style-type: none"> current prevalence rate between 2.9% and 15.8 specificity vs. sensitivity combat related PTSD prevalence used more probes into symptoms Differences can be explained by instrumentation |

| Authors/Year | Population/Sample | Research Objective | Relevant Methods & Analyses | Pertinent Findings & Limitations |
|---------------------------------------|--|--|---|--|
| US Centers for Disease Control (1988) | 2490 Vietnam and 1972 non-Vietnam veterans | Compare Vietnam vets with other era vets in terms of physical and mental health | <ul style="list-style-type: none"> Modified DIS for DSM III which enabled vets to skip section if they did not report traumatic events | <ul style="list-style-type: none"> About 15% of Vietnam veterans experienced combat-related posttraumatic stress disorder at some time during or after military service, and 2.2% had the disorder during the month before the examination |
| Yehuda, Southwick & Gillier (1992) | 40 vets with combat PTSD | Explore aspects of trauma (e.g. exposure to atrocities & combat exposure) related to PTSD severity | <ul style="list-style-type: none"> SCID for DSM III, Mississippi Schedule for Affective Disorders and Schizophrenia (SADS) Figley Scale for Combat PTSD Impact of Event Scale Combat Exposure Scale | <ul style="list-style-type: none"> Exposure to atrocities was correlated to Mississippi score, Figley, Impact & with current severity of depression; Combat exposure alone wasn't significantly related to symptom severity; Combat exposure & atrocities were both related to re-experiencing symptoms |

APPENDIX D

Coded Data²

² All data was obtained from the NVVRS dataset: Kulka, R. A., Schlenger, W. E., Fairbank, J. A., Hough, R. L., Jordan, B. K., Marmar, C. R., ... Weiss, D. (1988). National Vietnam veterans readjustment study. Unpublished raw data

| Case | Code | Subcode | Content |
|----------|----------|------------------------|--|
| CV150151 | Accident | Boat Accident | Boat Accident |
| CV150151 | Accident | Boat Accident | Canoe Accident |
| CV155754 | Accident | Boat Accident | Hit my pier with a boat |
| CV114710 | Accident | Motor Vehicle Accident | A car accident |
| CV116020 | Accident | Motor Vehicle Accident | A car crossed median - Head on crash |
| CV450890 | Accident | Motor Vehicle Accident | A head on auto collision |
| CV150904 | Accident | Motor Vehicle Accident | Accident - Automobile my car was totaled |
| CV150151 | Accident | Motor Vehicle Accident | An Florida crash |
| CV115154 | Accident | Motor Vehicle Accident | Auto accidents |
| CV114454 | Accident | Motor Vehicle Accident | Car accident |
| CV114710 | Accident | Motor Vehicle Accident | Car accident |
| CV115220 | Accident | Motor Vehicle Accident | Car accident |
| CV150151 | Accident | Motor Vehicle Accident | Car accident |
| CV151480 | Accident | Motor Vehicle Accident | Car accident |
| CV153064 | Accident | Motor Vehicle Accident | Car accident |
| CV155390 | Accident | Motor Vehicle Accident | Car accident |
| CV450858 | Accident | Motor Vehicle Accident | Car accident |
| CV153890 | Accident | Motor Vehicle Accident | Car crash |
| CV116772 | Accident | Motor Vehicle Accident | Car hit by train |
| CV115154 | Accident | Motor Vehicle Accident | Car jumped the curb |
| CV157222 | Accident | Motor Vehicle Accident | Car load of medics hit by a train |
| CV156158 | Accident | Motor Vehicle Accident | Car rolled on its top |
| CV131011 | Accident | Motor Vehicle Accident | Car wreck |
| CV150425 | Accident | Motor Vehicle Accident | Car wreck |
| CV157040 | Accident | Motor Vehicle Accident | Car wreck |
| CV154732 | Accident | Motor Vehicle Accident | Car wreck - Hit a horse |
| CV156166 | Accident | Motor Vehicle Accident | Car wreck on my way to work |
| CV113811 | Accident | Motor Vehicle Accident | Convoy accident |
| CV156158 | Accident | Motor Vehicle Accident | DA JA VV running off interstate on a curve |

| Case | Code | Subcode | Content |
|----------|----------|------------------------|--|
| CV114710 | Accident | Motor Vehicle Accident | Explosion of a recreational vehicle |
| CV116020 | Accident | Motor Vehicle Accident | Flipped a car and gas leaked I was told so I had t |
| CV155119 | Accident | Motor Vehicle Accident | Friend hit by car |
| CV151134 | Accident | Motor Vehicle Accident | Head on crash - 2 trucks |
| CV113134 | Accident | Motor Vehicle Accident | Head-on collision of two cars occupants thrown out |
| CV154302 | Accident | Motor Vehicle Accident | Highway accident |
| CV151134 | Accident | Motor Vehicle Accident | Hot wire on truck |
| CV155739 | Accident | Motor Vehicle Accident | I fell asleep at the wheel and ran into a telephon |
| CV133595 | Accident | Motor Vehicle Accident | I got broadsided by another car |
| CV115915 | Accident | Motor Vehicle Accident | I was driving - Car totalled |
| CV155515 | Accident | Motor Vehicle Accident | Involved in head-on car crash |
| CV132134 | Accident | Motor Vehicle Accident | Lost control of my car & hit telephone pole |
| CV157222 | Accident | Motor Vehicle Accident | Motor cycle wreck - Cycles hit a pick up head on - |
| CV115220 | Accident | Motor Vehicle Accident | I pa |
| CV155515 | Accident | Motor Vehicle Accident | Motorcycle accident |
| CV132134 | Accident | Motor Vehicle Accident | Motorcycle accident |
| CV117093 | Accident | Motor Vehicle Accident | My car got hit from rear |
| CV150904 | Accident | Motor Vehicle Accident | RB-26 crash in Japan |
| CV114454 | Accident | Motor Vehicle Accident | Same as #3 |
| CV154187 | Accident | Motor Vehicle Accident | Same as event 01 |
| CV115220 | Accident | Motor Vehicle Accident | Saw an accident at Lake Charles bridge |
| CV151829 | Accident | Motor Vehicle Accident | Scooter accident |
| CV113811 | Accident | Motor Vehicle Accident | Tractor trailer crash |
| CV152942 | Accident | Motor Vehicle Accident | Traffic accident |
| CV110536 | Accident | Motor Vehicle Accident | Train wreck in Germany |
| CV115154 | Accident | Motor Vehicle Accident | Truck accident |
| CV154302 | Accident | Motor Vehicle Accident | Truck accident |
| | | | Turned over semi-truck |

| Case | Code | Subcode | Content |
|----------|-----------|-------------------|--|
| CV131011 | Accident | Other accident | Almost drowning |
| CV155515 | Accident | Other accident | Snow mobile accident |
| CV153890 | Accidents | Plane Accidents | Aircraft crash |
| CV150524 | Accidents | Plane Accidents | Plane crash |
| CV114454 | Accidents | Plane Accidents | Plane crashes |
| CV113811 | Accidents | Work Accidents | Construction accident |
| CV152942 | Accidents | Work Accidents | Falling off a scaffold |
| CV116772 | Accidents | Work Accidents | Rolled earth mover over |
| CV113811 | Accidents | Work Accidents | Same as event #03 |
| CV150151 | Accidents | Work Accidents | Scaffold accident |
| CV157040 | Combat | Gunfire or Ambush | 1968 Tet offensive |
| CV150573 | Combat | Gunfire or Ambush | Ambush |
| CV151746 | Combat | Gunfire or Ambush | Ambushed |
| CV112144 | Combat | Gunfire or Ambush | Ambushed - Perimeter recon |
| CV151746 | Combat | Gunfire or Ambush | Ambushed again |
| CV153064 | Combat | Gunfire or Ambush | Ambushes |
| CV153064 | Combat | Gunfire or Ambush | Battle with American troops |
| CV151159 | Combat | Gunfire or Ambush | Being shelled - By either side |
| CV151746 | Combat | Gunfire or Ambush | Blew mine on us |
| CV116020 | Combat | Gunfire or Ambush | Caught incoming totally unprepared without a foxhole |
| CV116020 | Combat | Gunfire or Ambush | Dug in foxholes under umbrellas of artillery 100 me |
| CV157057 | Combat | Gunfire or Ambush | Dump exploded |
| CV116020 | Combat | Gunfire or Ambush | First fire fight - My gun fried once and didn't fire |
| CV116020 | Combat | Gunfire or Ambush | First time under heavy guns - Big cannons the kind t |

| Case | Code | Subcode | Content |
|----------|--------|-------------------|---|
| CV152983 | Combat | Gunfire or Ambush | First time under motor fire |
| CV110536 | Combat | Gunfire or Ambush | In coming motors In north Vietnam - Assaulted camp in thick grass all |
| CV116020 | Combat | Gunfire or Ambush | Incoming mortar attack when I was hit |
| CV130948 | Combat | Gunfire or Ambush | Korean's battle |
| CV153064 | Combat | Gunfire or Ambush | Morning ambush |
| CV112144 | Combat | Gunfire or Ambush | Mortar fire came from my company |
| CV132134 | Combat | Gunfire or Ambush | North Viet holiday - They stepped up fighting mass c |
| CV110700 | Combat | Gunfire or Ambush | Our unit ambushed - Lost one company - All killed |
| CV110700 | Combat | Gunfire or Ambush | Payback ambush |
| CV112144 | Combat | Gunfire or Ambush | Prisoner fire |
| CV150151 | Combat | Gunfire or Ambush | Reverse ambush |
| CV112144 | Combat | Gunfire or Ambush | Rocket exploded in front of me |
| CV155739 | Combat | Gunfire or Ambush | Rocket mortar fire |
| CV156836 | Combat | Gunfire or Ambush | Saigon - Mortored in camp |
| CV118083 | Combat | Gunfire or Ambush | Same as event #1 |
| CV157057 | Combat | Gunfire or Ambush | Same as event #10 |
| CV116020 | Combat | Gunfire or Ambush | Same as event #9 |
| CV116020 | Combat | Gunfire or Ambush | Saw chemical tanks blow up like a bomb |
| CV132514 | Combat | Gunfire or Ambush | Shot at |
| CV150151 | Combat | Gunfire or Ambush | Shot at again |
| CV150151 | Combat | Gunfire or Ambush | Sniper fire |
| CV151159 | Combat | Gunfire or Ambush | Tet offensive of 68 |
| CV154302 | Combat | Gunfire or Ambush | Vietnam fire fights |
| CV450890 | Combat | Gunfire or Ambush | Walking rice paddies and received 'friendly fire' |
| CV116020 | Combat | Gunfire or Ambush | We shelled a village across the river and all da |
| CV118083 | Combat | Gunfire or Ambush | We were overrun |
| CV116020 | Combat | Gunfire or Ambush | |

| Case | Code | Subcode | Content |
|----------|--------|--------------------------------------|---|
| CV135319 | Combat | NOS Combat | Booby trap |
| CV112144 | Combat | NOS Combat | Bunker |
| CV114694 | Combat | NOS Combat | Combat mission |
| CV115998 | Combat | NOS Combat | Combat situation with North Vietnamese it was the |
| CV155119 | Combat | NOS Combat | Duty driver fell asleep |
| CV131011 | Combat | NOS Combat | Dying and killing |
| CV150524 | Combat | NOS Combat | First LRRP patrol |
| CV132902 | Combat | NOS Combat | I saw a 22 year old guy leave to on patrol and the |
| CV132902 | Combat | NOS Combat | I was pulling guard at a supply depot alone and al |
| CV116020 | Combat | NOS Combat | I was walking point for whole battalion they were |
| CV156836 | Combat | NOS Combat | Jumping on chopper |
| CV156836 | Combat | NOS Combat | Just being in Vietnam |
| CV155119 | Combat | NOS Combat | Long haul thruway |
| CV154302 | Combat | NOS Combat | Mines on Que Viet river |
| CV152942 | Combat | NOS Combat | On patrol in Nam |
| CV450858 | Combat | NOS Combat | Threatened by Vietnam with a pistol |
| CV151159 | Combat | NOS Combat | Trying to dig up a land mine |
| CV150151 | Combat | NOS Combat | Vietnam |
| CV450445 | Combat | NOS Combat | Vietnam - The whole war |
| CV151829 | Combat | NOS Combat | Vietnam capital Saigon fell |
| CV116095 | Combat | NOS Combat | Vietnam in general |
| CV450031 | Combat | NOS Combat | Vietnam incident that I don't want to relate |
| CV156729 | Combat | NOS Combat | Vietnam war |
| CV450890 | Combat | NOS Combat | Vietnamese soldier came into our camp strapped wit |
| CV150524 | Combat | Others Killed or Injured - Combat | 2 deaths |
| CV110734 | Combat | Others Killed or Injured - Combat | 4 MS guards decapitated by Vietcong military deter |

| Case | Code | Subcode | Content |
|----------|--------|--------------------------------------|---|
| CV110536 | Combat | Others Killed or Injured - Combat | A civilian killed in Vietnam |
| CV118539 | Combat | Others Killed or Injured - Combat | Buddy wounded |
| CV154732 | Combat | Others Killed or Injured - Combat | Burn victim |
| CV155739 | Combat | Others Killed or Injured - Combat | Came upon people who had been killed |
| CV115154 | Combat | Others Killed or Injured - Combat | Caring for wounded |
| CV133173 | Combat | Others Killed or Injured - Combat | Casualties |
| CV150904 | Combat | Others Killed or Injured - Combat | Combat experience death of someone - Close friend |
| CV150904 | Combat | Others Killed or Injured - Combat | Death - Destruction |
| CV152983 | Combat | Others Killed or Injured - Combat | Dreams of taking lives |
| CV131375 | Combat | Others Killed or Injured - Combat | Dude got killed |
| CV111641 | Combat | Others Killed or Injured - Combat | Fair soldiers killed by booby trap |
| CV117093 | Combat | Others Killed or Injured - Combat | Friend killed in rocket attack |
| CV132639 | Combat | Others Killed or Injured - Combat | Friend killed in Vietnam |
| CV155390 | Combat | Others Killed or Injured - Combat | Friend shot in head |
| CV131938 | Combat | Others Killed or Injured - Combat | Guy killed |

| Case | Code | Subcode | Content |
|----------|--------|--------------------------------------|---|
| CV154302 | Combat | Others Killed or Injured - Combat | Guy lost hand |
| CV157222 | Combat | Others Killed or Injured - Combat | Guy with both arms & legs blown off from mine |
| CV154187 | Combat | Others Killed or Injured - Combat | Had to evacuate some aircraft members shot down |
| CV157057 | Combat | Others Killed or Injured - Combat | Helped victims in rocket attack |
| CV156836 | Combat | Others Killed or Injured - Combat | Helping the ambushed |
| CV157222 | Combat | Others Killed or Injured - Combat | I had to cut out some people who crashed in an air |
| CV132902 | Combat | Others Killed or Injured - Combat | I saw a person I knew get shot and killed with a s |
| CV153924 | Combat | Others Killed or Injured - Combat | I shot young boy |
| CV115972 | Combat | Others Killed or Injured - Combat | Intense sudden mortar banage 5 members of unit wou |
| CV156158 | Combat | Others Killed or Injured - Combat | Jet crashed in water and pilot was killed |
| CV450387 | Combat | Others Killed or Injured - Combat | Kid from Kansas died in my arms |
| CV152983 | Combat | Others Killed or Injured - Combat | Kid trying to steal hand grenade |
| CV118083 | Combat | Others Killed or Injured - Combat | Kids killed in Vietnam |
| CV152942 | Combat | Others Killed or Injured - Combat | Killing civilians |
| CV154732 | Combat | Others Killed or Injured - Combat | Land mine |

| Case | Code | Subcode | Content |
|----------|--------|--------------------------------------|---|
| CV154732 | Combat | Others Killed or Injured - Combat | Laughing at people being killed |
| CV117093 | Combat | Others Killed or Injured - Combat | Losing 37 people in my unit |
| CV133595 | Combat | Others Killed or Injured - Combat | Mama san and papa san killed on bridge a flat bed |
| CV133595 | Combat | Others Killed or Injured - Combat | Man blew himself up in Vietnam |
| CV112144 | Combat | Others Killed or Injured - Combat | Medic killed |
| CV154401 | Combat | Others Killed or Injured - Combat | Pilot ejected from helicopter chute unopened he was |
| CV154401 | Combat | Others Killed or Injured - Combat | Sailor brought on ship was all cut up |
| CV132902 | Combat | Others Killed or Injured - Combat | Same as 07 |
| CV156869 | Combat | Others Killed or Injured - Combat | Saw a woman who had burned to death |
| CV130120 | Combat | Others Killed or Injured - Combat | Seeing Adamski my buddy get killed in a firefight I |
| CV116772 | Combat | Others Killed or Injured - Combat | Seeing Americans wounded outside field hospital |
| CV151134 | Combat | Others Killed or Injured - Combat | Seeing friends killed in war |
| CV132902 | Combat | Others Killed or Injured - Combat | Seeing several times the morgue with 25 or 30 guys |
| CV115915 | Combat | Others Killed or Injured - Combat | Service of a medic - He died shooting |
| CV156158 | Combat | Others Killed or Injured - Combat | Shipmaster stabbed by another shipmaster |

| Case | Code | Subcode | Content |
|-----------|--------------------------|--------------------------------------|---|
| CV132902 | Combat | Others Killed or Injured - Combat | Somebody wasn't watching and there was a large che |
| CV154732 | Combat | Others Killed or Injured - Combat | The water hole - Dead marines at the watering hole |
| CV450890 | Combat | Others Killed or Injured - Combat | Vietnamese civilians killed during sniper attack |
| CV151829 | Combat | Others Killed or Injured - Combat | We picked up the body from a helicopter crash I cu Working civilians soldiers killed - Thought they wer |
| CV131623 | Combat | Others Killed or Injured - Combat | |
| CV112144 | Combat | Self Injured - Combat | Blind during attack |
| CV131938 | Combat | Self Injured - Combat | I was shot |
| CV450890 | Combat | Self Injured - Combat | Losing my right leg |
| CV1113134 | Combat | Self Injured - Combat | Lost of memory of period of time I was stationed I |
| CV115972 | Combat | Self Injured - Combat | Mortar round hit wounded me |
| CV110700 | Combat | Self Injured - Combat | Our helicopter landed - Took mortar shell I was woun |
| CV155382 | Combat | Self Injured - Combat | Patriotic duty - I received a head wound - Now I'm a p |
| CV157156 | Combat | Self Injured - Combat | Shot through the back now in wheel chair pulled a |
| CV111765 | Combat | Self Injured - Combat | The last month there - Thought I'll get injured |
| CV450858 | Combat | Self Injured - Combat | Wounded |
| CV450254 | Combat | Self Injured - Combat | Wounded on frontel assault on hill |
| CV116061 | Family Accident or Death | Family Accident | Accident of brother |
| CV157057 | Family Accident or Death | Family Accident | Daughter and her husband in accident |
| CV133322 | Family Accident or Death | Family Accident | Father had elevator fall on his head - I was on my w |
| CV156398 | Family Accident or Death | Family Accident | Nephew nearly drowned and was brain damaged |
| CV118539 | Family Accident or Death | Family Accident | Wife in accident |

| Case | Code | Subcode | Content |
|----------|--------------------------|-----------------------|--|
| CV132514 | Family Accident or Death | Family Death Accident | Brother killed in truck accident |
| CV118539 | Family Accident or Death | Family Death Accident | Brother's death/car accident |
| CV134528 | Family Accident or Death | Family Death Accident | Car accident that caused my mother's death |
| CV116772 | Family Accident or Death | Family Death Accident | Cousin killed in car wreck |
| CV156398 | Family Accident or Death | Family Death Accident | My brother got killed in an auto wreck |
| CV132902 | Family Accident or Death | Family Death Accident | My wife was hit and run over by a car |
| CV152942 | Family Accident or Death | Family Death Accident | Nephew drowned |
| CV156158 | Family Accident or Death | Family Death Accident | Partner drowned |
| CV151134 | Family Accident or Death | Family Death Accident | Sister in law death in accident |
| CV156836 | Family Accident or Death | Family Death NOS | Best friend killed |
| CV450858 | Family Accident or Death | Family Death NOS | Cousin's death |
| CV131011 | Family Accident or Death | Family Death NOS | Death of my mother |
| CV156729 | Family Accident or Death | Family Death NOS | Death of my wife |
| CV153064 | Family Accident or Death | Family Death NOS | Deaths of people close |
| CV116095 | Family Accident or Death | Family Death NOS | Father died |
| CV151746 | Family Accident or Death | Family Death NOS | Father's death |
| CV154302 | Family Accident or Death | Family Death NOS | Father's death |
| CV450890 | Family Accident or Death | Family Death NOS | Father's death |
| CV156729 | Family Accident or Death | Family Death NOS | My cousin aunt and mother also died the same year |
| CV132514 | Family Accident or Death | Family Death Violence | Brother-in-law was shot and killed |
| CV116772 | Family Accident or Death | Family Death Violence | Cousin was killed – Gunshot |
| CV157222 | Family Accident or Death | Family Death Violence | Daughter of a friend of mine was murdered |
| CV133322 | Family Accident or Death | Family Death Violence | Grandson ripped up by pitbull when he was about 3 or 4 |
| CV132902 | Family Accident or Death | Family Death Violence | My brother who is two years older was stabbed to d |
| CV153924 | Family Accident or Death | Family Death Violence | Someone murdered my brother |
| CV132514 | Family Accident or Death | Family Suicide | Brother's suicide |

| Case | Code | Subcode | Content |
|----------|--------------------------|-------------------------|---|
| CV131938 | Family Accident or Death | Family Suicide | Cousin committed suicide |
| CV110981 | Family Accident or Death | Family Suicide | Mother's Suicide |
| CV117093 | Family Accident or Death | Health Related Death | Brother died of heart attack |
| CV150524 | Family Accident or Death | Health Related Death | Death of mother (cancer) |
| CV133595 | Family Accident or Death | Health Related Death | Death of my grandfather died of cancer minister di |
| CV113811 | Family Accident or Death | Health Related Death | Mother heart attack |
| CV115998 | Family Accident or Death | Health Related Death | Mother passed away: Sudden heart attack |
| CV450890 | Family Accident or Death | Health Related Death | My mother's friend slowly died of cancer |
| CV155903 | Family Accident or Death | Health Related Death | Our daughter's death had cystic fibrosis |
| CV156158 | Fight or Assault | Others Fight or Assault | Assault on ex-wife's friend |
| CV152942 | Fight or Assault | Others Fight or Assault | Brother beaten by a pipe |
| CV110411 | Fight or Assault | Others Fight or Assault | Fight in Australia |
| CV115154 | Fight or Assault | Others Fight or Assault | Friend beaten-up |
| CV131375 | Fight or Assault | Others Fight or Assault | Friend stabbed |
| CV450890 | Fight or Assault | Others Fight or Assault | Neighbors were stabbed and robbed |
| CV133595 | Fight or Assault | Others Fight or Assault | Two guys got into fight at grammar school - One man |
| CV153064 | Fight or Assault | Self Assaulted | Assault |
| CV110536 | Fight or Assault | Self Assaulted | Fights |
| CV132514 | Fight or Assault | Self Assaulted | Give threatened to kill me in a bar in Vietnam |
| CV114454 | Fight or Assault | Self Assaulted | I got attacked by a gang |
| CV132134 | Fight or Assault | Self Assaulted | I was beaten up by policemen and arrested that's w |
| CV113811 | Fight or Assault | Self Assaulted | I was robbed |
| CV131375 | Fight or Assault | Self Assaulted | I was shot |
| CV114454 | Fight or Assault | Self Assaulted | Kicked down a flight of stairs and pronounced dead |
| CV150425 | Fight or Assault | Self Assaulted | Life threatened every night |
| CV131375 | Fight or Assault | Self Assaulted | Mugged |

| Case | Code | Subcode | Content |
|----------|------------------|----------------|---|
| CV151480 | Fight or Assault | Self Assaulted | Mugging |
| CV118133 | Fight or Assault | Self Assaulted | My father in law tried to shoot me |
| CV151829 | Fight or Assault | Self Assaulted | My father in law tried to shoot me |
| CV114454 | Fight or Assault | Self Assaulted | Same as #04 |
| CV131375 | Fight or Assault | Self Assaulted | Same as event 02 |
| CV156836 | Fight or Assault | Self Assaulted | Some guy started whooping on me |
| CV118539 | Fight or Assault | Self Assaulted | Unprovoked attack - On my bus |
| CV111641 | MI | Betrayal | Fair soldiers killed by booby traps |
| CV152983 | MI | Betrayal | Kid trying to steal hand grenade |
| CV154732 | MI | Betrayal | Laughing at people being killed |
| CV110536 | MI | Civilian Death | A civilian killed in Vietnam |
| CV153924 | MI | Civilian Death | I shot a young boy |
| CV118083 | MI | Civilian Death | Kids killed in Vietnam |
| CV152942 | MI | Civilian Death | Killing civilians |
| CV133595 | MI | Civilian Death | Mama san and Papa san killed on bridge a flat bed |
| CV450890 | MI | Civilian Death | Vietnamese civilians killed during sniper attack |
| CV118083 | MI | Civilian Death | We shelled a village across the river and all day |
| CV131623 | MI | Civilian Death | Working civilians soldiers killed - Thought they were |
| CV151159 | MI | Friendly Fire | Being shelled - By either side |
| CV132134 | MI | Friendly Fire | Mortar fire came from my company |
| CV116020 | MI | Friendly Fire | Walking rice paddies and received 'friendly fire' |
| CV150425 | MI | Prisoner Death | Death of a prisoner |
| CV151134 | Natural Disaster | Blizzard | Snowstorm |

| Case | Code | Subcode | Content |
|----------|------------------|------------|---|
| CV116087 | Natural Disaster | Earthquake | 1987 Whittier earthquake |
| CV110536 | Natural Disaster | Earthquake | Earth quake |
| CV450445 | Natural Disaster | Earthquake | Earthquake |
| CV132787 | Natural Disaster | Earthquake | Earthquake I felt in my house it really scared me |
| CV150151 | Natural Disaster | Fire | 6 House fire |
| CV157222 | Natural Disaster | Fire | 76 Refinery blew up it was struck by lightning |
| CV154187 | Natural Disaster | Fire | Bad fire at city service industrial complex |
| CV150573 | Natural Disaster | Fire | Brush fire |
| CV134528 | Natural Disaster | Fire | Fire in my home |
| CV116061 | Natural Disaster | Fire | Fire in New Jersey |
| CV131623 | Natural Disaster | Fire | Gasoline leak on drainage ditch - Lots of houses burn |
| CV152942 | Natural Disaster | Fire | Home fire |
| CV131011 | Natural Disaster | Fire | House burned (Two) |
| CV115154 | Natural Disaster | Fire | House fire |
| CV151480 | Natural Disaster | Fire | House fire |
| CV155119 | Natural Disaster | Fire | Housefire involving propane tank |
| CV450445 | Natural Disaster | Fire | Industrial furnace blew up |
| CV114454 | Natural Disaster | Fire | My fire |
| CV155119 | Natural Disaster | Fire | Vacant neighboring house on fire |
| CV154187 | Natural Disaster | Flood | A flood that almost came into my house lacked 5 in |
| CV131011 | Natural Disaster | Flood | Flood |
| CV131375 | Natural Disaster | Flood | Flood |
| CV151134 | Natural Disaster | Flood | Flood |
| CV152942 | Natural Disaster | Flood | Flood |
| CV153965 | Natural Disaster | Flood | Flood |
| CV155903 | Natural Disaster | Flood | Flooding - Coastal flooding |
| CV131623 | Natural Disaster | Flood | Flood - At my mother's house had to be evacuated |

| Case | Code | Subcode | Content |
|----------|------------------|-----------|--|
| CV150573 | Natural Disaster | Flood | Malibu flood |
| CV155119 | Natural Disaster | Flood | Spring flood |
| CV131623 | Natural Disaster | Hurricane | Hurricane Audrey - Town under water |
| CV115220 | Natural Disaster | Hurricane | Hurricane |
| CV131938 | Natural Disaster | Hurricane | Hurricane |
| CV150425 | Natural Disaster | Hurricane | Hurricane |
| CV153064 | Natural Disaster | Hurricane | Hurricane |
| CV154732 | Natural Disaster | Hurricane | Hurricane |
| CV154849 | Natural Disaster | Hurricane | Hurricane |
| CV157057 | Natural Disaster | Hurricane | Hurricane |
| CV150151 | Natural Disaster | Hurricane | Hurricane Helen |
| CV135319 | Natural Disaster | Tornado | A tornado |
| CV157222 | Natural Disaster | Tornado | A tornado hit a trailer park |
| CV150573 | Natural Disaster | Tornado | Michigan tornado |
| CV133173 | Natural Disaster | Tornado | Tornado |
| CV133322 | Natural Disaster | Tornado | Tornado |
| CV153890 | Natural Disaster | Tornado | Tornado |
| CV117093 | Natural Disaster | Tornado | Tornado - Air Force base |
| CV117093 | Natural Disaster | Tornado | Tornado - Oklahoma |
| CV132639 | Natural Disaster | Tornado | Tornado in Xeiina Ohio |
| CV133595 | Natural Disaster | Tornado | Tornado lot of destruction head man got piece of w |
| CV154302 | Natural Disaster | Tornado | Tornado on wife's dads farm |
| CV150904 | No Response | Refused | Other experience can't tell about |
| CV450387 | No Response | Refused | Ref |
| CV450890 | No Response | Refused | Refusal |
| CV110353 | No Response | Refused | Refused |
| CV132597 | No Response | Refused | Refused |

| Case | Code | Subcode | Content |
|----------|------------------------------|--------------------------------------|--|
| CV450031 | No Response | Refused | Refused |
| CV132787 | No Response | Refused | Refused: A bad experience I had don't want to tell |
| CV115154 | No Response | Uninterpretable | A whole block from Avon Avenue to Rose Terrace in Around Easter 1969 |
| CV132902 | No Response | Uninterpretable | Arsonist on ship |
| CV111765 | No Response | Uninterpretable | IWA (Resp |
| CV155119 | No Response | Uninterpretable | Slipper machine |
| CV150524 | No Response | Uninterpretable | |
| CV150524 | No Response | Uninterpretable | |
| CV118133 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | A child was trapped and died in a car crash that I |
| CV110411 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Body in the road |
| CV110734 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Car wreck close friend killed I was driving |
| CV156158 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Co-worker lost finger in machine press |
| CV150425 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Death of a prisoner |
| CV156729 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Drug execution I found the victim he was killed wi |
| CV131623 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Extremely close 10th grad classmate died unexpectedly |
| CV153262 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Friend and co-worker was shot and killed |
| CV131938 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Guys stabbed and cut-up |

| Case | Code | Subcode | Content |
|----------|------------------------------|--------------------------------------|--|
| CV131623 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | High school classmate killed in car crash |
| CV132639 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Man decapitated in car |
| CV131011 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Man hit by train |
| CV154732 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Mans arm amputated |
| CV150151 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Murder victims |
| CV150524 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Pali highway suicide |
| CV118133 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Same as event #01 |
| CV156869 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Saw a little girl with a toothpick stuck in her ea |
| CV115998 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Saw a motorcycle run into car and man killed insta |
| CV151159 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Seeing a fugitive killed and 2 agents wounded |
| CV157222 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | We get patients in hospital injured by tractors tu |
| CV132639 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Women burned up in house |
| CV155515 | Non-Combat Injuries or Death | Others Killed or Injured - Noncombat | Worker lost his hand |
| CV156398 | Non-combat Injuries or Death | Self Injured - Non-Combat | I fell 20 feet and smashed my left ankle |

| Case | Code | Subcode | Content |
|----------|---------------------------------------|---------------------------|--|
| CV154302 | Non-Combat Injuries or Death | Self Injured - Non-Combat | Nose broken in bar fight |
| CV154401 | Non-Combat Injuries or Death | Self Injured - Non-Combat | Scalding water burns from car radiator radiator ca Slipped on deck at work - Injured knee - Cartiledge had |
| CV154401 | Non-Combat Injuries or Death | Self Injured - Non-Combat | Tire blew up and injured my hand |
| CV156869 | Non-Combat Injuries or Death | Self Injured - Non-Combat | Truck rolled over my legs |
| CV115972 | Non-Combat Injuries or Death | Self Injured - Non-Combat | My drug use and being strung out |
| CV114454 | Psychosocial High Magnitude Stressor | Substance Abuse | Buddies |
| CV156836 | Psychosocial High Magnitude Stressor | Vague | Losing a friend |
| CV115915 | Psychosocial High Magnitude Stressor | Vague | Sex |
| CV114694 | Psychosocial High Magnitude Stressor | Vague | Illegally arrested |
| CV110411 | Magnitude Stressors | Arrest | I was arrested – DWI |
| CV118083 | Psychosocial High Magnitude Stressors | Arrest | Childhood memories |
| CV115154 | Psychosocial High Magnitude Stressors | Childhood | Broke up with Christine |
| CV131011 | Magnitude Stressors | Family Troubles | Court proceedings for child support |
| CV151829 | Psychosocial High Magnitude Stressors | Family Troubles | |

| Case | Code | Subcode | Content |
|----------|---------------------|-----------------|--|
| | Psychosocial High | | |
| CV114694 | Magnitude Stressors | Family Troubles | Dad's illness |
| | Psychosocial High | | |
| CV156836 | Magnitude Stressors | Family Troubles | Divorce |
| | Psychosocial High | | |
| CV151829 | Magnitude Stressors | Family Troubles | Ex wife is greedy and has misdirected animosity |
| | Psychosocial High | | |
| CV134528 | Magnitude Stressors | Family Troubles | Immediate family problems |
| | Psychosocial High | | |
| CV151829 | Magnitude Stressors | Family Troubles | Mother can't mind her own business |
| | Psychosocial High | | |
| CV450445 | Magnitude Stressors | Family Troubles | My divorce bad experience |
| | Psychosocial High | | |
| CV132787 | Magnitude Stressors | Family Troubles | My divorce she never told me she did it until the |
| | Psychosocial High | | |
| CV118133 | Magnitude Stressors | Family Troubles | My present wife lied to me about her past life and |
| | Psychosocial High | | |
| CV151829 | Magnitude Stressors | Family Troubles | My relationship with Sybil – Girlfriend |
| | Psychosocial High | | My son started calling me pretty nasty names |
| CV132514 | Magnitude Stressors | Family Troubles | hating me bla |
| | Psychosocial High | | |
| CV132514 | Magnitude Stressors | Family Troubles | My wife started fooling around before our divorce |
| | Psychosocial High | | |
| CV152942 | Magnitude Stressors | Family Troubles | Really my last divorce drinking past friends past |
| | Psychosocial High | | |
| CV131011 | Magnitude Stressors | Family Troubles | Rejection and separation from Rose |
| | Psychosocial High | | Romantically involved with a married woman three |
| CV113811 | Magnitude Stressors | Family Troubles | tim |
| | Psychosocial High | | |
| CV150425 | Magnitude Stressors | Family Troubles | Saw my father abuse my mother |

| Case | Code | Subcode | Content |
|----------|---------------------|-------------------|--|
| | Psychosocial High | | |
| CV131011 | Magnitude Stressors | Family Troubles | Separation of me and my first wife |
| | Psychosocial High | | |
| CV131011 | Magnitude Stressors | Family Troubles | Separation of me and my wife |
| | Psychosocial High | | |
| CV132787 | Magnitude Stressors | Neighbor Issue | I had a Mexican standoff with a neighbor we both h |
| | Psychosocial High | | |
| CV115915 | Magnitude Stressors | Post War Stresses | In Brooklyn - The parade for Vietnam vets |
| | Psychosocial High | | |
| CV152983 | Magnitude Stressors | Post War Stresses | Puling funeral detail stateside |
| | Psychosocial High | | |
| CV152983 | Magnitude Stressors | Post War Stresses | Won't watch TV or see movies |
| | Psychosocial High | | |
| CV110411 | Magnitude Stressors | Racism | Racial discrimination – School |
| | Psychosocial High | | |
| CV118083 | Magnitude Stressors | Vague | Liquor store on Federal made me feel like I was in |
| | Psychosocial High | | |
| CV150151 | Magnitude Stressors | Work Related | Administrative headaches |
| | Psychosocial High | | |
| CV155119 | Magnitude Stressors | Work Related | Drug raid |
| | Psychosocial High | | |
| CV151159 | Magnitude Stressors | Work Related | Making arrest with other agents |
| | Psychosocial High | | |
| CV450445 | Magnitude Stressors | Work Related | My job experiences the lousy things at work worki |
| | Psychosocial High | | |
| CV150151 | Magnitude Stressors | Work Related | Sex offense cases |

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