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Pepperdine University

Graduate School of Education and Psychology

MORALLY INJURIOUS SYMPTOMATOLOGY: A QUALITATIVE EXAMINATION OF THE NVVRS

A clinical dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Psychology

by

Douglas Stewart Kraus

April, 2013

David W. Foy, Ph.D. – Dissertation Chairperson

This clinical dissertation, written by

Douglas Stewart Kraus

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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TABLE OF CONTENTS

Page

LIST OF TABLES v

DEDICATION vi

AKNOWLEDGEMENTS vii

VITA viii

ABSTRACT x

Introduction 1

    Research Objectives 7

Methods 8

    Participants 8

    Measures/ Dataset 9

    Design, Procedures, and Data Analysis 9

Results 11

    Frequency and Extensiveness 11

    Moral Injury 12

Discussion 14

    Limitations 17

    Future Research 20

REFERENCES 21

TABLES 24

APPENDIX A: Statement of Related Dissertation Studies 45

APPENDIX B: Literature Review Table 48

LIST OF TABLES

Page

Table 1: Combat Veteran Responses to Question 1 24

Table 2: Combat Veteran Resonses to Question 2 29

Table 3: Outline/ Exemplars of Combat Veteran Responses to Questions 1 & 2 33

Table 4: Combat Veteran MI Responses to Question 1 38

Table 5: Combat Veteran MI Responses to Question 2 41

DEDICATION

I dedicate my work to my family, friends, partner, and mentors. Without their unwavering support, practical guidance, and genuine caring, I would not have succeeded in graduate school and come out the other side to tell the tale. I will be forever grateful to you all! As I look forward to the future, I feel lucky and blessed to have the people in my life that I do.

ACKNOWLEDGEMENTS

I am eternally grateful for the guidance, patience, and support bestowed upon me by dissertation committee and lab members, especially my chairperson, Dr. David Foy, Ph.D. Without his weekly leadership, direction, and assistance, I certainly would not be as excellent of a professional as the one that stands here today. Perhaps most importantly, I would also like to thank my parents for supporting and believing in me all these years. Moreover, I'd like to acknowledge the love of my life for her continued love, dedication, and understanding that she has bequeathed to me throughout the rewarding, yet arduous course of obtaining my doctoral degree in clinical psychology.

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ABSTRACT

As with all psychological constructs in their infancy, it is important to operationalize a definition as part of the construct validation process. As a phenomenon that continues to gain recognition amongst the psychological community, Moral Injury (MI) is no different. Although Litz et al. (2009) introduced and defined MI as the "psychological, biological, spiritual, behavioral, and social impact of perpetrating, failing to prevent, or bearing witness to acts that transgress deeply held more beliefs and expectations," Drescher et al. (2011) found that a similar working definition was "inadequate" and lacked clarity according to trauma experts' opinion. The following exploratory, qualitative study attempts to validate and enhance the current definitional understanding of MI by identifying associated thematic signs and symptoms as reported by 100 randomly selected veterans from the Combat Subsample of the National Vietnam Veterans Readjustment Study (NVVRS). Major themes generated by blind coders were compared with thematic signs and symptoms of MI as developed by Drescher et al. (2011). Although MI was not identified as a theme by coders, signs and symptoms of MI were identified throughout the data.

Introduction

There is ample evidence to suggest that warzone trauma consists of multiple dimensions and is resultant from multiple causes (King, King, Gudanowski, & Vreven, 1995; Laufer, Gallops & Frey-Wouters, 1984; Yehuda, Southwick, & Giller, 1992). As a result, the psychological effects of exposure to different aspects of war may vary in presentation from one veteran to another, and are not strictly limited to the symptoms of Posttraumatic Stress Disorder (PTSD; Laufer et al., 1984). In other words, some veterans fail to develop PTSD, develop PTSD, or develop other associated symptoms (in the absence, or presence of PTSD). These symptoms include signs of depression (such as dysphoria, anhedonia, and social isolation), relational problems, parenting problems, suicidal behavior, domestic violence, substance abuse, criminal behavior, loss of spirituality, anger management difficulties, guilt, shame, and other general distresses. Notably, this variance in symptomatic presentation may not only be explained by individual differences in perception (King et al., 1995) or preexisting emotional style (Hendin & Haas, 1984), but also by veterans' differential psychological experiences (Kashdan, Elhai, & Frueh, 2006; Kashdan, Elhai, & Frueh, 2007).

Since early conceptualizations of war related stress, moral and value conflicts have been considered important sources of distress resulting from combat exposure (Laufer et al., 1984, pg. 66). Despite this early incorporation within theory, little research exists at current that addresses the link between combat exposure and changes in morality (Drescher, Foy, Litz, Kelly, Leshner, & Schutz, 2011). As a result of a growing awareness of this deprivation within the psychological literature, there has recently been

a renewed interest in the emotional, spiritual, and psychological wounds that result from ethical and moral challenges that combatants confront during war (Litz, Stein, Delaney, Lebowitz, Nash, Silva, & Maguen, 2009). This renewed interest recognizes the essentiality for studies to investigate ethical and moral challenges in the warzone, as these origins may be important in accounting for unique symptom presentations that result from Veteran's differential reaction to warzone trauma.

Moral Injury (MI) is a construct that has recently been proposed to describe disruption in an individual's sense of personal morality (Drescher et al., 2011). More specifically, MI has been described in the psychological literature as:

> A disruption in an individual's confidence and expectations about one's own or other's motivation or capacity to behave in a just and ethical manner. This injury is brought about by bearing witness to perceived immoral acts, failure to stop such actions, or perpetration of immoral acts, in particular actions that are inhumane, cruel, depraved, or violent, bringing about pain, suffering, or death of others (Drescher et al., 2011).

In order to understand the genesis of a MI, one must first understand the impact that perception has upon its development. For an event to be deemed as morally injurious, a person must first perceive this event to come in conflict with his or her morals. Lazarus, DeLongis, Folkman, and Gruen (1985) stress that there is no pure stressor that can be isolated from personal appraisal. Further, the entire process of experiencing and responding to a stressor is thought to involve cyclical, multifactorial, person-environment relationships (King et al., 1995). Similar ideas are used to explain differential reaction to combat exposure. Hendin and Haas (1984) introduced the notion that post combat stress disorders are not so much a function of the objective war zone

experience, but rather how those experiences are individually perceived and internalized by combatants.

On a related note, Bandura (1999, 2002) describes *moral disengagement* as disengaging from moral self-sanctions through psychological maneuvers which allow for the engagement in reprehensible conduct. Bandura discusses these maneuvers as including the following psychological processes: redefining harmful conduct as honorable by means of moral justification, exonerating social comparison, sanitizing associated internalized and externalized language, minimizing the perpetrator's role in causation of harm through the diffusion and displacement of responsibility, minimizing or distorting the harm that follows detrimental actions, and/or dehumanizing and blaming the victims. In relation to MI, there may be a propensity for one to become morally injured when he or she does not appropriately disengage morally, or in turn, make sense of their moral disengagement.

With these concepts in mind, it is important to note that the Vietnam War has been hypothesized to be a relatively unique war in that its distinctive environmental conditions provided many situational inducements to behave in inhumane ways. More specifically, Vietnam has been referred to as a *war amongst the people*, as not all combatants presented themselves in the traditional form of armies, and it was commonly difficult to differentiate between the identity of the enemy and friendly civilians (Dohrenwend, Turner, Turse, Adams, Koenen, & Marshall, 2007; Laufer et al., 1984). This uncertainty coupled with a lack of support for the U.S. troops' actions (both by local Vietnamese and U.S. civilians at home) lead to a certain sense of insecurity within the

combatants. In turn, this insecurity may have led to sanctioned (and unsanctioned) acts of brutality against civilians, prisoners of war, or even fellow soldiers, as U.S. troops attempted to control an extremely unstable environment. Thus, the Vietnam War itself is seen by many as inherently productive of disproportionate violence, betrayal, incidence involving civilians, and within ranks violence- leading not only to physical discomfort, but also moral discomfort as well. It should be noted that soldiers' exposure to traumas of this variety was not limited to the constraints of combat. In a guerrilla war of this magnitude, exposure to these types of traumas occurred outside of combat as well. Furthermore, level of participation within the trauma also varied uniquely by soldier. Some may have merely witnessed abusive violence, while others ordered it and/or participated within it themselves. Because of this broad range of experience, an extensive range of psychological symptoms and behavioral problems have resulted. In other words, the unique nature of Vietnam War made it a veritable hotbed for the development of a variety of problems, including what some conjecture to be morally injurious events, and as a result presumably MI.

In a qualitative review of interviewed experts with professional experience involving military personnel or war zone veterans, Drescher et al. (2011) identified thematic elements of war zone combat experience (including both trauma exposure and trauma perpetration) that most likely contribute to the production of a MI. Betrayal, disproportionate violence, incidents involving civilians, and within ranks violence were identified as major thematic categories for traumatic events that may lead to the development of MI. Examples of betrayal events included leadership failures, betrayal

by peers, failure to live up to one's own moral standards, and betrayal by trusted civilians. Examples of disproportionate violence were comprised of mistreatment of enemy combatants and acts of rage. Examples of incidents involving civilians were destruction of civilians' property and assault. Examples of within ranks violence were comprised of military sexual trauma, friendly fire, and fragging.

Drescher et al. (2011) also identified thematic categories related to the signs or symptoms of MI by qualitatively reviewing interviews from the same panel of experts. Social problems, loss of trust or a sense of betrayal, spiritual/existential issues, psychological symptoms, and self-deprecation were identified as major thematic categories for signs or symptoms of MI. Examples of social problems were social withdrawal, sociopathy, problems fitting in, legal and disciplinary problems, and parental alienation from their child. Examples of loss of trust or a sense of betrayal were impairments in intimacy, feelings of betrayal by leadership, feelings of betrayal by peers, feelings of betrayal by civilians, and feelings that one has betrayed their own standards. Examples of spiritual/existential issues were giving up or questioning morality, spiritual conflict, profound sorrow, fatalism, loss of meaning, loss of caring, anguish, and feeling haunted. Examples of psychological and social functioning problems included depression, anxiety, anger, re-enactment, denial, occupational dysfunction, and exacerbated pre-existing mental illness. Examples of self-deprecation were comprised of guilt, shame, self-loathing, feeling damaged, and loss of self-worth.

To date, most of the research involving traumas has focused on victimization associated with traumatic events due to the fact that the exposure criteria for PTSD lacks

explicit inclusionary criteria for those who have perpetrated a trauma. As a result, little focus has been placed on the consequences associated with inflicting trauma upon others. Thus, both antecedent events and subsequent symptoms related to MI have been underrepresented within the psychological literature as well. Despite this fact, there are some exceptions that stand as examples of evidence within the current psychological literature that lend credence to the notion that perpetration or other ethical violations can result in unique and long-lasting consequences. For example, Ford (1999) and Singer (2004) found that veterans who reported committing atrocities subsequently presented with symptoms that extended beyond those associated with the diagnostic criteria for PTSD. Relatedly, Maguen et al. (2009) and Maguen et al. (2010) showed that sanctioned war-zone killings were associated with uniquely variant symptom presentations not only in Vietnam Veterans, but also Iraq and Afghanistan War Veterans as well. Thus, unique symptomatic presentations coupled with PTSD have been shown to increase the harm associated with PTSD in a comorbid fashion. However, other researchers have chosen to describe this phenomenon in terms of an increase in PTSD severity. MacNair (2002) found that PTSD associated with killing was more severe, as higher rates of PTSD were associated with those who were directly involved in atrocities in comparison to those who only saw them.

It should be mentioned that a large proportion of the aforementioned literature has utilized the National Vietnam Veterans Readjustment Study (NVVRS; Kulka et al., 1990). This utilization is largely due to the fact that the NVVRS is considered by many

within the psychological community to be the most complete, representative sample of U.S. Veterans from the Vietnam War in existence.

The NVVRS was a federally commissioned, epidemiological study that was conducted between 1986 and 1988 (Kulka et al., 1990). The NVVRS used a randomly selected, stratified, nationally representative sample of 3,016 U.S. Vietnam Era Veterans drawn from 8.2 million military servicepersons by using an area probability approach based on military records. The sample included both men and women, enlisted and officers, and was representative of all branches of the military. African American men, Hispanic men, women, and veterans with disabilities connected to their service were intentionally oversampled. Data was collected via extended interviews and self-report questionnaires in order to ascertain a multitude of pre-military, military service, and post-military variables. Of the total 3,016 veterans interviewed, 1,200 men and 432 women were classified as Vietnam Theater Veterans who served Vietnam and its surrounding regions from August 5, 1964 to May 7, 1975. More specifically, the portion of 1,200 male Vietnam Theater Veterans are referred to as the Vietnam Combat subsample. Most published research using the NVVRS data has examined the presence or strength of psychiatric disorders, such as PTSD, and not other psychosocial outcomes, such as those associated with MI (Martz, Bodner, & Livneh, 2009).

Research Objective

The purpose of this study is to examine open-ended responses of the NVVRS to investigate the signs and symptoms associated with MI. More specifically, the study aims to explore the following three research questions:

i. What types of signs or symptoms are associated with involvement in military combat, an event that is presumed to cultivate MI?

ii. Do these signs or symptoms match those of MI previously identified by the experts from Drescher et al.'s (2011) study?

iii. What, if any, additional thematic categories associated with signs or symptoms of MI can be identified through qualitative examination of NVVRS data?

Methods

Participants

This archival study utilized participant data from the National Vietnam Veterans Readjustment Study (NVVRS; Kulka et al. 1990); now a public, de-identified data base. The NVVRS gathered data via an interview procedure which averaged 5 hours in length and comprehensively assessed for pre-military, military service, and post-military aspects of functioning. Informed consent was obtained from participants prior to the start of the NVVRS interview. The overall sample (*N*=3,016) was nationally representative and included veterans and civilians participants from the Vietnam era. Within this overall sample, the Vietnam Theater subsample included 1,632 veterans who served in Vietnam and its surrounding areas between August 5, 1964 and May 7, 1975. This subsample was comprised of both male (*N*=1,200) and female (*N*=432) military personnel within the warzone, and included combatants, nurses, and other military posts. The portion of 1200 male Vietnam Theater veterans is also commonly referred to as the Vietnam Combat subsample. Since this study focused on generating thematic signs and symptoms

associated with participation in warzone combat, a randomly selected sample of 100 participants from the Vietnam Combat subsample was explored.

Measures/ Dataset

Each of these 100 participants responded to the following string of questions as part of the NVVRS interview. First participants were asked to respond to the multiple choice question: "How much would you say the Vietnam War has affected your everyday life? A great deal, a fair amount, hardly at all, or not at all?" As long as the participant responded with any choice other than "not at all," the question, "In what ways has the Vietnam war affected your everyday life?" was asked. Otherwise, this question was skipped. All participants were then asked: "Now please tell me briefly, in your own words, how your experiences, in or around Vietnam, have affected your life? First, what were some of the positive things you gained from your Vietnam experience?" Next, participants were asked: "And, what were some of the negative things?" For the purposes of this study, responses to the two open-ended questions: (a) "In what ways has the Vietnam war affected your everyday life?" and (b) "And, what were some of the negative things?" were examined

Design, Procedures, and Data Analysis

An indirect approach to qualitative content analysis was utilized as a research method in order to interpret the content of responses through descriptive examination of the two following open-ended questions: "In what ways has the Vietnam War affected your everyday life?" and "And, what were some of the negative things?" In general, qualitative content analysis has been defined as "a research method for the subjective

interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005). In terms of the current study, the aim was to systematically classify signs and symptoms amongst NVVRS combat participants via the process of coding and identifying symptomatic themes.

Data from the NVVRS was analyzed descriptively on a per-question basis. Coders first read open ended responses in order to derive an initial coding scheme. Responses were then reviewed, sorted, and truncated into more refined thematic categories. Through this process, themes may have been split or combined as deemed appropriate by coders. All coding was collaboratively reviewed between coders to ensure consistency in themes. Discrepancies were resolved through discussion and consensus by all coders. In other words, member checks were utilized as part of the process in order to reduce possible bias, as coding was first completed independently by separate coders, who then compared their findings with one another in order to ensure accuracy. Major thematic categories were developed, and exemplars for each theme were identified from the data. All coders were blind to previously identified thematic categories for signs and symptoms of MI from the Drescher et al. (2011) study. The principle investigator and members of the dissertation lab then reviewed the coders' findings for consistency, resolved any lingering discrepancies, and created subthemes within each major theme in order to increase specificity during data analysis.

All responses and their associated codes were then transferred into a qualitative data analysis software program, HyperRESEARCH 2.8, for further analysis.

Specifically, frequency and extensiveness were calculated for each major theme. Frequency (*F*) was defined as the total number of responses that received the code of a particular theme, such as *Interpersonal Relationships*. For *F*, the percentage represents the total number of times this theme was mentioned by all respondents from the total number of comments coded for that interview question. Extensiveness (*E*) was conceptualized as the total number of participants who made at least one comment that indicated a particular theme. The percentage for *E* represents the number of participants who mentioned that theme out of all the participants. Both *E* and *F* are indicators of the importance of a topic to the participants (Krueger, 1998).

Results

Frequency and Extensiveness

The two interview questions called for open-ended responses from the veterans. The first of these, "In what ways has the Vietnam War affected your everyday life?" elicited a diversity of responses from the participants that were indicative of the varied impact that the war had upon their subsequent level of functioning. More specifically, the 100 participants provided 230 total responses. Of these 230 responses, 39 were uninterpretable, refusals, or instances of no response. Sixteen participants only provided responses of this variety. This left 191 responses from 84 participants which were coded for themes. Imbedded themes identified in the combat veterans' responses were (a) attitude, personality or character change, (b) death, injury or physical health, (c) employment or education, (d) government, politics or media, (e) interpersonal relationships, (f) symptoms indicative of trauma, (g) symptoms indicative of mood

disorder, (h) undifferentiated reaction to war, and (i) positive impact. Refer to Table 1 for a complete listing of major themes and associated subthemes. Frequencies and extensiveness for each major theme are also listed within this table. Relevant exemplars are listed in Table 3.

The second question asked combat veterans, “And, what were some of the negative things?” about their experiences, in or around Vietnam that affected their life. While this question also yielded diverse responses from the participants, these responses focused on the negative impact that the war had upon the veterans’ subsequent level of functioning. More specifically, the 100 participants provided 187 responses. Of these 187 responses, 30 were uninterpretable, refusals, or instances of no response. Eight participants only provided responses of this variety. This left 157 responses from 92 veterans which were coded for themes. Imbedded themes identified in the responses were (a) attitude, personality or character change, (b) death, injury or physical health, (c) employment or education, (d) government, politics or media, (e) interpersonal relationships, (f) symptoms indicative of trauma, (g) symptoms indicative of mood disorder, and (h) undifferentiated reaction to war. Refer to Table 2 for a complete listing of major themes and associated subthemes. Frequencies and extensiveness for each major theme are also listed within this table. Relevant exemplars are listed in Table 3.

Moral Injury

Although the initial coders did not identify any major themes of signs and symptoms of MI that on their own lineup with those of the Drescher et al. (2011) study, it should be noted that, in combination, the major themes employment or education,

symptoms indicative of trauma, and symptoms indicative of mood disorder were similar to the major theme psychological symptoms as depicted by Drescher et al. (2011). More specifically, the exemplars depression, anxiety, and occupational dysfunction from within the major theme, psychological symptoms, from the Drescher et al. (2011) study were in line with the major themes identified by coders from the present study.

Nevertheless, the principle investigator and members of the dissertation lab discerned that a variety of veteran responses reflected similar thematic ideals as those from the Drescher et al. (2011) study. Therefore, further analyses were conducted upon these phrases for the purpose of comparison with the signs and symptoms of MI from the Drescher et al. study. More specifically, veteran responses that reflected MI ideology were recoded for MI using the same coding scheme for signs and symptoms from the Drescher et al. study on a per-question basis.

In terms of the first question, "In what ways has the Vietnam War affected your everyday life?" 12 veterans (*E*=12%) responded with 13 statements (*F*=6%) that revealed signs and symptoms of MI. Loss of trust or a sense of betrayal was indicated in six statements (*F*=3%) from six veterans (*E*=7%). Self-deprecation was indicated in five statements (*F*=3%) from four veterans (*E*=5%). A solitary veteran (*E*=1%) responded with a singular statement (*F*=1%) that was indicative of spiritual/existential issues. Additionally, one statement (*F*=1%) from one veteran (*E*=1%) indicated psychological symptoms. Social problems were not indicated amongst these responses. For a complete listing of question one MI responses and their associated code, please refer to Table 4. Frequencies and extensiveness for each code are indicated in Table 1.

With regard to the second question, "And, what were some of the negative things?" 28 veterans (*E*=30%) replied with 34 responses (*F*=22%) which revealed signs and symptoms of MI. Twelve statements (*F*=8%) from 12 (13%) veterans indicated loss of trust or a sense of betrayal. Although 10 veterans (*E*=11%) reported them, spiritual/existential issues were also reported in 12 statements (*F*=8%). Psychological symptoms were indicated in five responses (*F*=3%) from five veterans (*E*=5%). Social problems were indicated in three responses (*F*=2%) from two veterans (*E*=2%). Lastly, self-deprecation was indicated in two statements (*F*=1%) from one solitary veteran (*E*=1%). For a complete listing of question two MI responses and their associated code, please refer to Table 5. Frequencies and extensiveness for each code are listed in Table 2.

Discussion

As one of three related studies undertaken by Dr. David Foy's Trauma Research Lab which cumulatively attempted to enhance the validity of the MI construct (see Appendix A), this exploratory study utilized a nationally representative sample of veterans to investigate if the current understanding of MI could be corroborated by primary source material (e.g. veteran accounts). The goal of this particular study was to ascertain if the functional impairments reported by Vietnam, combat veterans included thematic signs and symptoms of MI related to those conceptualized by Drescher et al. (2011).

Although blind coders were employed initially to generate major themes from the data on a per-question basis, they were not able to generate major thematic categories that

matched up well with the major thematic signs and symptoms of MI from the Drescher et al. (2011) study. There may have been several reasons for this outcome. For instance, the coders, who were masters and doctoral level research assistants, were not trauma experts. As a result, coders may not have been able to make the conceptual distinction between present MI symptomatology and other signs and symptoms among the responses. Barriers to their success may have included the low prevalence of MI responses within the overall sample, the phenomenon that MI responses also included other concepts, and/or the general inexperience of the coders themselves.

Nevertheless, the principle investigator and dissertation lab members came to a consensus that 43 responses across the two questions were indicative of MI. These responses were recoded for signs or symptoms of MI utilizing the coding scheme from the Drescher et al. (2011) study. The results revealed that all themes from this coding scheme were present within the examined NVVRS data, and no new thematic signs or symptoms of MI were generated.

Thus, overall findings were consistent with those of Drescher et al. (2011), and add to the validity of MI as a construct. In the context of both studies, the themes put forth by Drescher et al. were qualitatively observable not only within the secondary report of expert opinion, but also within the primary report of Vietnam veterans themselves. While these results do not represent an increase the breadth of symptom parameters associated with MI, they do enhance the validity of the themes currently in use in that they were shown to be useful descriptors of MI in additional contexts.

With regard to the MI responses themselves, it is important to note that although MI responses were relatively sparse in terms of overall response frequency, the fact that MI responses were observable at all points to the enduring nature of signs and symptoms associated with MI. As it is probable that a portion of participants resolved their MI symptomatology prior to NVVRS data collection, it should be noted that additional signs or symptoms of MI may have been observed in veteran responses if interviews had been conducted closer to the end of their wartime military service.

In terms of more specific implications, the collective findings point toward the idea that wartime experience has a significant impact upon how MI symptomatology is developed. In fact, within the data of the present study, the Vietnam War clearly had a unique impact upon the type of MI signs and symptoms that were ingrained within its veterans. This unique impact was observable in regards to both frequency and extensiveness of MI themes. More specifically, the frequency and extensiveness of the two themes loss of trust or a sense of betrayal and spiritual/existential issues, in each case, were double, or nearly double, that of the other MI themes. The sociopolitical context surrounding Vietnam, and the unique style of guerrilla warfare associated with this war were undoubtedly factors that attributed to these findings. With regard to the Drescher et al. (2011), the heightened prevalence of the theme loss of trust or a sense of betrayal amongst the findings was particularly significant given the fact that it was the theme least mentioned by experts in the Drescher et al. study. The fact that this theme was the most ubiquitous in the current study also suggest that fundamental differences

may exist between the average wartime experience, and the unique experience of Vietnam.

The findings of the current study also displayed significance in that guilt and shame were readily observable amongst MI responses in the form of the theme self-deprecation. With regard to MI as a construct, these findings suggest that guilt and shame are important psychologically associated traits. If one feels that he or she has done wrong, then he or she may feel culpable for his or her action or inaction, and/or feel that his or her action or inaction has disgraced or dishonored themselves or others. Since it is inherent that an individual must possess, and violate a moral framework in order to experience wrongdoing, one might argue that lingering feelings of culpability, disgrace, or dishonor are salient indicators that a MI has occurred.

In terms of the big picture, overall findings advocate for the idea that it is necessary to expand the current conceptualization of trauma to include MI. Since many of the replicated themes within this qualitative study fall outside the purview of the diagnostic criteria for PTSD, they indicate that unique sets of reactions to traumatic experiences exist, including those that occur when person's moral framework has been violated. In this way, this study serves as further evidence of the construct validity of MI.

Limitations

One limitation of the current study was that it relied upon NVVRS archival data that was not intended to be used in the examination of the current construct under scrutiny. As a result, questions may not have been asked in a manner that facilitated identification of all associated thematic constructs. More specifically, the

questions themselves inherently pulled for over inclusive responses as they did not ask veterans to specifically describe their symptoms that resulted from participation in combat during the Vietnam War. Another limitation of the current study was that in relying on NVVRS data, it also relied upon self-report data, which inherently included self-report bias. For example, due to associated stigma, participants in the NVVVRS may not have felt sufficiently comfortable to report their actual symptoms to interviewers.

There are also several limitations associated with the choice of a primarily indirect approach to qualitative content analysis. For instance, while the use of blind coders reduced the effects of possible prejudice on the findings, they also lacked any understanding of morally injurious signs and symptoms, and thus, may have failed to develop a complete understanding of the data. Thus, findings may not have accurately reflected the concept of MI.

Relatedly, while coders were blind to existing theory of MI, they were not blind to the current diagnostic criteria of the DSM-IV-TR. As a result, existing diagnostic criteria may have biased coders to produce codes that were influenced by the DSM-IV-TR. The possible occurrence of such a phenomenon may help to explain aspects of the coders' categorization strategy. In other words, coders may have used categories from the DSM-IV-TR as guidelines upon which they built their codes. For example, the major thematic categories symptoms indicative of trauma and symptoms indicative of mood disorder are categories that are similar to certain anxiety and mood disorder Axis I categorization schemes from the DSM-IV-TR. Additionally, the themes attitude, personality, or

character change and interpersonal relationships not only contained content which was consistent with Axis I symptomatology, but also Axis II conceptualizations for certain personality disorders. Since coders consisted of psychology graduate students at both the masters and doctoral level, such a possible overreliance upon DSM-IV-TR criteria might suggest that treating professionals need to become better versed in the identification of symptom presentations that lie outside of the scope of the traditional bio-psycho-social model- including those associated with moral and ethical dilemmas. Needless to say, in clinical cases where possible MI is observed, proper identification of MI symptomatology is an important part of the treatment process. For instance, possible MI reactions, such as spiritual/existential issues, stress how important it is that clinicians not only expand upon the current bio-psycho-social model, but also include bio-psycho-social-spiritual aspects of mental health functioning.

There may also have been limitations associated with the deductive aspects of this particular qualitative approach. Although coders were blind to the thematic signs and symptoms of MI from the Drescher et al. (2011) study, the principle investigator and dissertation lab members approached the data with informed thought when assigning subthemes. As a result of this approach, inherent bias may have occurred. In other words, researchers may have been more apt to find evidence that was supportive rather than non-supportive of the previous theory, possibly blinding them to other contextual aspects of the phenomenon.

A final limitation exists in that the study specifically examined the responses of Vietnam Veterans who served within the warzone and experienced traumatic experiences

there. Thus, the results elicited should not be generalized to other populations, such as Vietnam Veterans who experienced symptoms of MI as a result of traumatic experiences that occurred outside the context of the combat within the Vietnam War, women, or veterans of other wars.

Future Research

While this study represents advancement in the development of symptom or problem parameters of MI, clearly more research is needed. Future studies investigating MI utilizing different populations in a variety of contexts are important to the continued development of the construct. For example, accounts of survivors of domestic violence should be qualitatively examined for unique signs and symptoms of MI. Additionally, a reliable and valid measure should be developed that accurately accesses for exposure to MI events and signs and symptoms of MI. Lastly, interventions should be developed or amended and then tested in order to discern viable treatments for MI symptomatology.

REFERENCES

Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review, 3*(3), 193-209. doi:10.1207/s15327957pspr0303_3

Bandura, A. (2002). Selective moral disengagement in the exercise of moral agency. *Journal of Moral Education, 31*(2), 101-119. doi:10.1080/0305724022014322

Dohrenwend, B., Turner, J., Turse, N., Adams, B., Koenen, K., & Marshall, R. (2007). Continuing controversy over the psychological risks of Vietnam for U.S. veterans. *Journal of Traumatic Stress, 20*(4), 449–465. doi:10.1002/jts.20296

Drescher, K., Foy, D., Litz, B., Kelly, C., Leshner, A., & Schutz, K. (2011). An exploration of the viability and usefulness of the construct of moral injury in war veterans. *Journal of Traumatology*, *17*(1), 8-13. doi:10.1177/1534765610395615

Ford, J. (1999). Disorders of extreme stress following war-zone military trauma: Associated features of posttraumatic stress disorder or comorbid but distinct syndromes? *Journal of Consulting and Clinical Psychology, 67*(161-166), 3-12. doi:10.1037/0022-006X.67.1.3

Hendin, H., & Haas, A. (1984). Combat adaptation of Vietnam veterans without posttraumatic stress disorders. *American Journal of Psychiatry, 141*(8), 956-960. Retrieved from http://search.ebscohost.com

Hsieh, H., & Shannon, S. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277-1288. doi:10.1177/1049732305276687

Kashdan, T., Elhaib, J., & Frueh, B. (2006). Anhedonia and emotional numbing in combat veterans with PTSD. *Behaviour Research and Therapy, 44*, 457–467. doi:10.1016/j.brat.2005.03.001

Kashdan, T., Elhai, J., & Frueh, B. (2007). Anhedonia, emotional numbing, and symptom overreporting in male veterans with PTSD. *Personality and Individual Differences, 43*, 725–735. doi:10.1016/j.paid.2007.01.013

King, D., King, L., Gudanowski, D., & Vreven, D. (1995). Alternative representations of war zone stressors: Relationships to posttraumatic stress disorder in male and female Vietnam veterans. *Journal of Abnormal Psychology, 104*(1), 184-196. doi:10.1037/0021-843X.104.1.184

Krueger, R.A. (1998). Focus Groups: *A practical guide for applied research.* Newbury Park, CA: SAGE

Kulka, R. A., Schlenger, W. E., Fairbank, J. A., Hough, R. L., Jordan, B. K., Marmar, C. R., & et al. (1990). *Trauma and the Vietnam war generation*. New York: Brunner/Mazel.

Laufer, R., Gallops, M., & Frey-Wouters, E. (1984). War stress and trauma: The Vietnam veteran experience. *Journal of Health and Social Behavior, 25*(1), 65-85. doi:10.2307/2136705

Lazarus, R., DeLongis, A., Folkman, S., & Gruen, R. (1985). Stress and Adaptational Outcomes: The problem of confounded measures. *American Psychologist, 40*(7), 770-779. doi:10.1037/0003-066X.40.7.770

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

MacNair, R. (2002). Perpetration-induced traumatic stress in combat veterans. *Peace and Conflict: Journal of Peace Psychology, 8*(1), 63-72. doi:10.1207/S15327949PAC0801_6

Maguen, S., Metzler, T., Litz, B., Seal, K., Knight, S., & Marmar, C. (2009). The impact of killing in war on mental health symptoms and related functioning. *Journal of Traumatic Stress, 22*(5), 435–443. doi:10.1002/jts.20451

Maguen, S., Lucenko, B., Reger, M., Gahm, G., Litz, B., Seal, K., Knight, S., & Marmar, C. (2010). The impact of reported direct and indirect killing on mental health symptoms in Iraq war veterans. *Journal of Traumatic Stress, 23*(1), 86-90. Retrieved from http://search.ebscohost.com

Martz, E., Bodner, T., & Livneh, H. (2009). Coping as a moderator of disability and psychosocial adaptation among Vietnam theater veterans. *Journal of Clinical Psychology, 65*(1), 94-112. doi:10.1002/jclp.20541

Schlenger, W., Kulka, R., Fairbank, J., Hough, R., Jordan, B., Marmar, C., & Weiss, D. (2007). The psychological risks of Vietnam: The NVVRS perspective. *Journal of Traumatic Stress, 20*(4), 467–479. doi:10.1002/jts.20264

Singer, M. (2004). Shame, guilt, self-hatred and remorse in the psychotherapy of Vietnam combat veterans who committed atrocities. *American Journal of Psychotherapy, 58*(4), 377-385. Retrieved from http://search.ebscohost.com

Yehuda, R., Southwick, S., & Giller, E. (1992). Exposure to atrocities and severity of chronic posttraumatic stress disorder in Vietnam combat veterans. *The American Journal of Psychiatry, 149*(3), 333-336. Retrieved from http://search.ebscohost.com

Zhang, Y., & Wildemuth, B. (2009). Qualitative analysis of content. In B. Wildemuth (Ed.), *Applications of social research methods to question in information and library science* (pp. 222-231). Westport, CT: Libraries Unlimited.

TABLE 1

Combat Veteran Responses to Question 1

Table 1.
Combat Veteran Responses to Question 1

Code	Extensiveness (*E*)	Percentage	Frequency (*F*)	Percentage
ATTITUDE, PERSONALITY, OR CHARACTER CHANGE	20	24%	27	14%
Negative attitude or behavior shifts	-	-	-	-
Changes in self-perception	-	-	-	-
Changes in attitudes toward others	-	-	-	-
Undifferentiated attitude, personality, or character change	-	-	-	-
DEATH, INJURY, OR PHYSICAL HEALTH	14	17%	19	10%
Illness or injury sustained during combat	-	-	-	-
Enduring health complications	-	-	-	-
Family or friends wounded or killed	-	-	-	-
Thoughts or emotions related to death	-	-	-	-
Instances of negative coping	-	-	-	-
EMPLOYMENT OR EDUCATION	12	14%	18	9%
Disruptions in career or education	-	-	-	-
Negative long-term career effects	-	-	-	-
Positive long-term career effects	-	-	-	-
Undifferentiated long-term career effects	-	-	-	-

(continued)

Code	Extensiveness (*E*)	Percentage	Frequency (*F*)	Percentage
Comments regarding time served in the military	-	-	-	-
GOVERNMENT, POLITICS, OR MEDIA	16	19%	19	10%
Negative shifts in view of the government	-	-	-	-
Positive shifts in view of the government	-	-	-	-
Undifferentiated shifts in view of the government	-	-	-	-
Expressions related to feeling let down or failed by the government, military, or U.S. public	-	-	-	-
Criticisms of governmental policy	-	-	-	-
Increased political awareness	-	-	-	-
INTERPERSONAL RELATIONSHIPS	18	21%	26	14%
Effects upon communication about war	-	-	-	-
Feeling rejected or misunderstood by others	-	-	-	-
Shame	-	-	-	-
Loss of interpersonal relationship(s)	-	-	-	-
Gains in relationship or group	-	-	-	-
Changes in interactions with others	-	-	-	-
Changed view of relationship	-	-	-	-
Undifferentiated, interpersonal relationships	-	-	-	-

(continued)

Code	Extensiveness (*E*)	Percentage	Frequency (*F*)	Percentage
SYMPTOMS INDICATIVE OF TRAUMA	15	18%	27	14%
Social isolation/avoidant symptoms	-	-	-	-
Re-experiencing symptoms	-	-	-	-
Symptoms of increased arousal	-	-	-	-
Guilt	-	-	-	-
SYMPTOMS INDICATIVE OF MOOD DISORDER	4	5%	5	3%
Sorrow or depressed mood	-	-	-	-
Irritability, anger, or hostility	-	-	-	-
UNDIFFERENTIATED REACTION TO WAR	26	31%	32	17%
Experiences in Vietnam	-	-	-	-
Emotions or thoughts related to wartime which were insufficient for diagnosis	-	-	-	-
Denial, suppression, repression, or statements indicating no effect	-	-	-	-
Suggesting life changing, character changing, or character defining aspects (undifferentiated)	-	-	-	-
General or undifferentiated responses, nondescript valence	-	-	-	-

(continued)

Code	Extensiveness (*E*)	Percentage	Frequency (*F*)	Percentage
General or undifferentiated responses, negative valence	-	-	-	-
POSITIVE IMPACT	11	13%	18	9%
Positive emotions or behaviors	-	-	-	-
Enhanced self-esteem	-	-	-	-
Enhanced coping	-	-	-	-
Enhanced appreciation for life	-	-	-	-
Enhanced knowledge or life experience	-	-	-	-
MORAL INJURY	12	14%	13	7%
Loss of trust or a sense of betrayal	6	7%	6	3%
Self-deprecation	4	5%	5	3%
Spiritual/existential issues	1	1%	1	1%
Psychological symptoms	1	1%	1	1%
Social problems	-	-	-	-
*Capitalized=major thematic category; italicized=subtheme	-	-	-	-

(Subjects *N*=84)
(Responses *N*=191)

TABLE 2

Combat Veteran Responses to Question 2

Table 2.
Combat Veteran Responses to Question 2

Code	Extensiveness (*E*)	Percentage	Frequency (*F*)	Percentage
ATTITUDE, PERSONALITY, OR CHARACTER CHANGE	9	10%	10	6%
Negative attitude or behavior shifts	-	-	-	-
Changes in attitudes toward others	-	-	-	-
DEATH, INJURY, OR PHYSICAL HEALTH	30	33%	38	24%
Illness or injury sustained during combat	-	-	-	-
Enduring health complications	-	-	-	-
Family or friends wounded or killed	-	-	-	-
Thoughts or emotions related to death	-	-	-	-
Instances of negative coping				
EMPLOYMENT OR EDUCATION	4	4%	4	3%
Disruptions in career or education	-	-	-	-
Negative long-term career effects	-	-	-	-
Undifferentiated long-term career effects	-	-	-	-
Comments regarding time served in the military	-	-	-	-
GOVERNMENT, POLITICS, OR MEDIA	29	32%	30	19%
Negative shifts in view of the government	-	-	-	-

(continued)

Code	Extensiveness (*E*)	Percentage	Frequency (*F*)	Percentage
Undifferentiated shifts in view of the government	-	-	-	-
Expressions related to feeling let down or failed by the government, military, or U.S. public	-	-	-	-
Criticisms of governmental policy	-	-	-	-
Criticisms of the media	-	-	-	-
INTERPERSONAL RELATIONSHIPS	19	21%	25	16%
Feeling rejected or misunderstood by others	-	-	-	-
Loss of interpersonal relationship(s)	-	-	-	-
Changes in interactions with others	-	-	-	-
Changed view of relationship	-	-	-	-
Undifferentiated, interpersonal relationships	-	-	-	-
SYMPTOMS INDICATIVE OF TRAUMA	16	17%	21	13%
Social isolation/avoidant symptoms	-	-	-	-
Re-experiencing symptoms	-	-	-	-
Symptoms of increased arousal	-	-	-	-
Guilt	-	-	-	-
Undifferentiated symptoms indicative of trauma	-	-	-	-

(continued)

Code	Extensiveness (E)	Percentage	Frequency (F)	Percentage
SYMPTOMS INDICATIVE OF MOOD DISORDER	4	4%	5	3%
Sorrow or depressed mood	-	-	-	-
Feelings of helplessness	-	-	-	-
UNDIFFERENTIATED REACTION TO WAR	21	23%	24	15%
Experiences in Vietnam	-	-	-	-
Denial, suppression, repression, or statements indicating no effect	-	-	-	-
Suggesting life changing, character changing, or character defining aspects (undifferentiated)	-	-	-	-
General or undifferentiated responses, nondescript valence	-	-	-	-
General or undifferentiated responses, negative valence	-	-	-	-
MORAL INJURY	28	30%	34	22%
Loss of trust or a sense of betrayal	12	13%	12	8%
Spiritual/existential issues	10	11%	12	8%
Psychological symptoms	5	5%	5	3%
Social problems	2	2%	3	2%
Self-deprecation	1	1%	2	1%
*Capitalized=major thematic category; italicized=subtheme	-	-	-	-

(Subjects N=92)
(Responses N=157)

TABLE 3

Outline/ Exemplars of Combat Veteran Responses to Questions 1 & 2

Table 3.
Outline/ Exemplars of Combat Veteran Responses to Questions 1 & 2

Code	Exemplar
ATTITUDE, PERSONALITY, OR CHARACTER CHANGE	-
Negative attitude or behavior shifts	IT'S MADE ME BITTER
Changes in self-perception	I'M A LOSER NOW I WANTED US TO WIN THE WAR & WE DIDN'T
Changes in attitudes toward others	IT HAS MADE ME MORE CYNICAL
Undifferentiated attitude, personality, or character change	ATTITUDE IN GENERAL THAT'S IT
DEATH, INJURY, OR PHYSICAL HEALTH	-
Illness or injury sustained during combat	I WAS WOUNDED
Enduring health complications	AND PHYSICALLY IT RUINED ME
Family or friends wounded or killed	LOSS OF THE PEOPLE YOU WERE IN COMBAT WITH FRIENDS
Thoughts or emotions related to death	I FEEL SORROW FOR THE DEAD AND INJURED VETERANS
Instances of negative coping	LED ME TO DRINK TOO MUCH
EMPLOYMENT OR EDUCATION	-
Disruptions in career or education	IT INTERUPPED MY CAREER PROGRESSION
Negative long-term career effects	I WAS UNABLE TO ACHIEVE GOALS I HAD
Positive long-term career effects	HELPED ME TO BE A BETTER PHARAMACIST CAUSE I WAS A CORP MAN IN NAVY
Undifferentiated long-term career effects	I WOULDN'T BE DOING TODAYS OCCUPATION
Comments regarding time served in the military	THE 9 YEARS I PUT IN THE SERVICE THE VIETNAM WAR WAS AT THE END OF IT

(continued)

Code	Exemplar
GOVERNMENT, POLITICS, OR MEDIA	
Negative shifts in view of the government	A LACK OF TRUST OF GOVERNMENT AND OR ESTABLISHMENTS
Positive shifts in view of the government	MADE ME APPRECIATE MY COUNTRY MORE THAN I PROBABLY WOULD HAVE
Undifferentiated shifts in view of the government	IT'S CHANGED MY ATTITUDE TOWARD GOVERNMENT
Expressions related to feeling let down or failed by the government, military, or U.S. public	FEELING THAT THE GOVERNMENT DIDN'T REALLY CARE ABOUT US OVER THERE
Criticisms of governmental policy	WHAT IS NEGATIVE IS IT WAS OF NO STATIGIC IMPORTANCE TO WORLD PEACE TO BE THERE AND TO MAKE AMERICAN
Increased political awareness	MORE AWARE OF THE INTERNATIONAL SITUATION GOING FROM DAY TO DAY
Criticisms of the media	THE MEDIA THE DISSOLUSIMENT OF HOW THE MEDIA BROADCAST IT TO THE UNITED STATES
INTERPERSONAL RELATIONSHIPS	-
Effects upon communication about war	I GET A LOT OF QUESTIONS ABOUT IT
Feeling rejected or misunderstood by others	NOBODY UNDERSTANDS
Shame	I GET HESITANT ABOUT ADMITTING I WAS OVER THERE
Loss of interpersonal relationship(s)	WELL WHEN I LEFT I WAS MARRIED AND WHEN I CAME BACK I HAD LOST MY WIFE
Gains in relationship or group	BEING IN THE VETERANS GROUPS.
Changes in interactions with others	MY WIFE AND FAMILY TELL ME I'VE CHANGED
Changed view of relationship	IT CHANGE THE WAY I FEEL ABOUT OTHERS
Undifferentiated, interpersonal relationships	THE DIFFERENT PEOPLE LIFESTYLES COMPARED TO OUR OWN

(continued)

Code	Exemplar
SYMPTOMS INDICATIVE OF TRAUMA	-
Social isolation/avoidant symptoms	I'M OVER PROTECTIVE OF MY PERIMETER I BUILD THE TALLEST FENCE I CAN AND ALARM SYSTEMS I FIND MYSELF
Re-experiencing symptoms	BASICALLY I HAVE A LOT OF NIGHTMARES
Symptoms of increased arousal	I'M NEVER ABLE TO FULLY RELAX
Guilt	MAYBE GUILT ABOUT LIVING WHEN OTHERS AREN'T LIVING
Undifferentiated, symptoms indicative of trauma	IT RUINED MY HEALTH MENTALLY
SYMPTOMS INDICATIVE OF MOOD DISORDER	-
Sorrow or depressed mood	I LIVE WITH THE SORROW EVERY DAY
Irritability, anger, or hostility	I GET MAD EASIER AND
Feelings of helplessness	A HELPLESSNESS MEAN
UNDIFFERENTIATED REACTION TO WAR	-
Experiences in Vietnam	BEING OVER THERE IN IT
Emotions or thoughts related to wartime which were insufficient for diagnosis	I THINK ABOUT IT NOW AND THEN IT SEEMS TO BE SOMETHING THAT HAS STAYED WITH ME AND I HAVE NOT FORGOTTEN EVEN THOUGH THE
Denial, suppression, repression, or statements indicating no effect	I DIDN'T COME BACK WITH ANY NEGATIVE THINGS (THINK) CAN'T THINK OF ANYTHING NEGATIVE
Suggesting life changing, character changing, or character defining aspects (undifferentiated)	IT'S THE BASIS OF WHAT EVERYTHING I DO IS BASED ON MY EXPERIENCE IN VIETNAM
General or undifferentiated responses, nondescript valence	THE WHOLE INVOLVEMENT

(continued)

Code	Exemplar
General or undifferentiated responses, negative valence	IT DIDN'T HELP ME A DIDDLY SHIT
POSITIVE IMPACT	-
Positive emotions or behaviors	THE THING I WENT THROUGH I THINK MADE ME A BETTER PERSON
Enhanced self-esteem	SENSE OF APPRECIATION OF SELF
Enhanced coping	COPE WITH PEOPLE A LITTLE BIT BETTER
Enhanced appreciation for life	IN GENERAL IT'S MADE ME MORE APPRECIATIVE OF LIFE
Enhanced knowledge or life experience	GAIN KNOWLEDGE
*Capitalized=major thematic category; italicized=subtheme	-

TABLE 4

Combat Veteran MI Responses to Question 1

Table 4.
Combat Veteran MI Responses to Question 1

MI Code	Veteran ID#	Response
Loss of trust or a sense of betrayal	N=6	N=6
feelings of betrayal by U.S. public	113811	WHEN I CAME BACK I WASN'T A HERO AND COMING INTO AN AIRPORT IN
feelings of betrayal by government	115220	AS FAR AS THE GOVERNMENT GOES I FEEL LIKE YOU CAN'T REALLY TRUST THE GOVERNMENT TO TELL YOU WHAT'S GOING ON LIKE WITH TH
feelings of betrayal by government	115998	NAM HAS TAUGHT ME THAT EVERYONE CAN FAIL EVEN THE GOVERNMENT AS POWE
failure to live up to one's own moral standards	116095	THAT WE WERE WRONG
feelings of betrayal by government	132134	THEY NEVER DID ANYTHING TO HELP ME REAJUST
feelings of betrayal by U.S. public	132514	I HAD TROUBLE GETTING A JOB BECAUSE I WAS A VIETNAM VET
Self-deprecation	N=4	N=5
guilt	116772	I DON'T FEEL GOOD ABOUT IT
guilt	132597	I FEEL THAT I HAD NO BUSINESS OVER THERE
shame	151829	IT'S TOUGH ENOUGH TO ADMIT WRONGS BUT FOR A WRONG THAT RESULTS FROM A CAUS
feeling damaged	156869	I'M A LOSER NOW I WANTED US TO WIN THE WAR & WE DIDN'T
shame	156869	HOW CAN YOU EVER EXPLAIN THAT TO YOUR KIDS OR ANYONE
Spiritual/existential issues	N=1	N=1
giving up or questioning morality	117093	MADE ME QUESTION MY VALUES

(continued)

MI Code	Veteran ID#	Response
Psychological symptoms	N=1	N=1
anger	133173	IT MADE ME AWARE OF HUMAN RIGHTS THAT WERE BEING MISUSED OVER THERE IN VIETNAM
Social problems	N=0	N=0
-	none	none
*Italicized=major thematic category from Drescher et al. (2011); non-italicized=exemplar	-	-

(Subjects *N*=12)
(Responses *N*=13)

TABLE 5

Combat Veteran MI Responses to Question 2

Table 5.
Combat Veteran MI Responses to Question 2

MI Code	Veteran ID#	Response
Loss of trust or a sense of betrayal	N=12	N=12
feelings of betrayal by U.S. public	110700	THIS COUNTRY TURNED ITS BACK ON THE GRUNTS WE
feelings of betrayal by government	118083	MALARKEY THAT WENT ON WITH OUR GOVERNMENT LIKE WE'D BE GETTING FIRE AND THEY WOULDN'T GIVE US THE OK
feelings of betrayal by government	132787	I DONE MY PART; THEY DIDNT DO THEIR PART I'M OUT HERE AND UNEMPLOYED UNCLE SAM'S GOT MONEY AND JOBS
feelings of betrayal by government	150573	TO SEE HOW THE GOVERNMENT CAUSED A LOT OF UNNECESSARY LIFE LOSS SINCE THEY HAVEN'T DONE ANYTHING ABO
feelings of betrayal by government	151134	FEELING THAT THE GOVERNMENT DIDN'T REALLY CARE ABOUT US OVER THERE
feelings of betrayal by U.S. public	153064	I FELT AS THEOUGH THE AMERICAN PEOPLE DIDN'T FEEL WE WERE DOING ANYTHING LIKE THAT OVER THERE JUST T
feelings of betrayal by military	154401	AFTER SPENDING A LOT OF TIME IN THE SERVICE I WAS FORCED OUT & IT AFFECTED MY FITNESS REPORT AND OUT
feelings of betrayal by U.S. public	154823	THE FEELING THE LACK OF CARING FOR US FORM THE AMERICAN PEOPLE
feelings of betrayal by government	155903	THAT THE GOVERNMENT WASN'T MUCH HELP IN SOLVING THE VIETNAM SITUATION (P) (Prompted)

(continued)

MI Code	Veteran ID#	Response
feelings of betrayal by government	156729	I DON'T THINK IT SHOULD HAVE ENDED THAT WAY WE SHOULDN'T HAVE PULLED OUT IF OUR GO
feelings of betrayal by government/military	156836	THE ARMY OR GOVERNMENT DIDN'T HAVE ANYONE WE COULD TALK TO TO GET THIS CRAP OUT IN THE OPEN PEOPLE P
feelings of betrayal by peers	450445	WALK IN TO A VFW HALL AND BE REJECTED IT TITALLY RUNIED
Spiritual/existential issues	N=10	N=12
giving up or questioning morality	116095	SAW INTERCOURSE WITH DEAD GIRLS & WOMEN CHILDREN TO YOUNG TO THINK & PRO
anguish	131623	THE BIGGEST THING WAS BEING FORCED TO DO SOMETHING I WAS OPPOSED TO
profound sorrow	133595	THE SACRIFICE OF SOME OF THE YOUNG M
profound sorrow	134353	ALL THE YOUNG MEN LOSING THEIR LIVES SOME BEFORE THEY WERE EVEN 20
profound sorrow	151134	WASTE OF LIFE
giving up or questioning morality	151829	WHAT IS NEGATIVE IS IT WAS OF NO STATIGIC IMPORTANCE TO WORLD PEACE TO BE THERE AND TO MAKE AMERICAN
spiritual conflict	152942	BEING INVOLVED IN THE ACTUAL KILLING AND
spiritual conflict	152942	BURNING HOMES
spiritual conflict	152942	DESTROYING FAMILIES
profound sorrow	156398	A LOT OF SENSELESS DEATHS

(continued)

MI Code	Veteran ID#	Response
profound sorrow	157156	THE WASTE OF ALL THE GOOD YOUNG MEN WE LOST
Psychological symptoms	N=5	N=5
anger	110536	TWO YEARS WASTED
anger	117093	DISAPPOINTED THAT WE DIDNT KICK THERI ASS LIKE WE SHOULD HAVE VIETNAM
anger	135319	THE ONLY NEGATIVE THING I HAVE TO SAY ABOUT VIET NAM MY LAST TOUR WAS A WASTE OF TIME
anger	153924	SOME WHAT BITTER ABOUT NOT FINISHING THE JOB WE STARTED TO DO WE WEREN'T ALLOWED TO WIN
anger/denial	156869	NONE JUST WANTED TO WIN THE WAR & WE DIDN'T
Social problems	N=2	N=3
sociopathy	150151	THE REVERSE OF APPRECIATION OF LIFE
problems fitting in	450445	REJECTION BY FAMILY AND
problems fitting in	450445	FRIENDS
Self-deprecation	N=1	N=2
guilt	113811	IT GIVES ME A GUILT FEELING
guilt	113811	BY NOT BEING ABLE TO BE A COMBAT SOLDIER
*Italicized= major thematic category from Drescher et al. (2011); non-italicized=exemplar	-	-

(Subjects *N*=28)
(Responses *N*=34)

APPENDIX A

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. (2011) 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 (Kraus, 2012) 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 first study entitled "Themes of Moral Injury in Trauma Experiences of Vietnam Combat Veterans: A Qualitative Examination of the NVVRS" was conducted by Alison Flipse Vargas (2012). Vargas (2012) 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 (2012) followed the same methodology as Vargas (2012) with the exception of utilizing the non combat veterans and twice as many participants (N=200). Consistent with Vargas (2012), 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 Vargas (2012) but explored signs and symptoms of MI. Kraus (2012) 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 B

Literature Review Table

Study	Population	Purpose	Analyses/Measures	Overview of Results
Bandura (1999)	N/A.	To discuss Moral Agency, Moral Disengage-ment, and Moral Justification.	Theoretical manuscript; illustrates the types of Moral Disengagement and outlines the theoretical cognitive mechanisms associated with it.	The interchange between moral disengagement, pro-social behavior, aggression proneness, delinquent behavior, and guilt and restitution is illustrated; as is the interplay between personal and social sanctions upon moral agency/ disengagement.
Bandura (2002)	N/A.	To review Moral Agency, Moral Disengage-ment, and Moral Justification.	Theoretical manuscript; Review of Types of Selective Moral Disengagement and their causes.	"'More hideous crimes have been committed in the name of obedience, than in the name of rebellion.'"
Beckham, Feldman & Kirby (1998)	Vietnam combat veterans (N=151) with chronic PTSD.	To examine the connection between exposure to an atrocity and PTSD symptoms, guilt, and interpersonal violence.	Quantitative, descriptive, multiple regression analyses. Measures utilized: Atrocities Exposure Subscale, Davidson Trauma Scale (DTS), Trauma-Related Guilt Inventory (TRGI), Interpersonal Violence from the Overall Violence Index (OVI).	Endorsement of atrocities was related to PTSD symptom severity, re-experiencing, global guilt, guilt cognitions, and measures assessing for hindsight bias/responsibility and wrongdoing.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Centers for Disease Control Vietnam Experience Study (1988)	2490 Vietnam veterans and 1972 non-Vietnam veterans.	To investigate the health status of Vietnam veterans.	Quantitative; multivariate analyses using logistic regression. Psychological health assessed by Diagnostic Interview Schedule (DIS) and Minnesota Multiphasic Personality Inventory (MMPI).	Depression, anxiety, and alcohol abuse or dependence were elevated for Vietnam veterans. Lifetime prevalence of PTSD was 15% and 2.2% had the disorder during the month before examination.
Dohrenwend, Turner, Turse, Adams, Koenen & Marshall (2007)	NVVRS male Theater veterans (N=1200 men).	To address the controversy regarding the NVVRS and CDC study findings.	Quantitative. Measures of probable severity of exposure to war-zone stressors were constructed with military records and historical accounts (MHM's), and measures of the onset and course of war-related PTSD derived from NVVRS clinical examinations (SCID).	Discussed Vietnam as a "'War Amongst the People;'" Little evidence of dissembling or more subtle forms of exaggeration by NVVRS veterans. Differing rates of PTSD resulted from differential criteria for the disorder. Factored in impairment in functioning. PTSD improved with time (10-11 year period after war).

Study	Population	Purpose	Analyses/Measures	Overview of Results
Dohrenwend, Turner, Turse, Lewis-Fernandez & Yager (2008)	The NVVRS subsample of male White, Black, and Hispanic Theater veterans (N=248).	To investigate elevated prevalence rates of chronic PTSD for Black and Hispanic veterans.	Quantitative, bivariate associations/Wald chi-squared/post hoc pairwise *t* tests of differences in proportions/logistic regression analyses. Utilized Structured Clinical Interview for DSM-III-R (SCID).	Black elevation was explained by Blacks' greater exposure; the Hispanic elevation, by Hispanics' greater exposure, younger age, lesser education, and lower Armed Forces Qualification Test scores. The PTSD elevation in Hispanics versus Blacks was accounted for mainly by Hispanics' younger age.
Drescher, Foy, Kelly, Leshner, Schutz, & Litz (2011)	Diverse group of health and religious professionals with many years of service to active duty warriors and veterans (N=23).	To provide a first step in the construct validation of MI.	Qualitative, purposeful snowball sampling strategy, interviews with principle investigator, data analyzed descriptively on a per-question basis, major themes coded, frequencies and extensiveness calculated for themes.	Results indicated strong support for the usefulness of MI as a concept; however, the working definition was found to be inadequate. Themes for MI events and signs and symptoms of MI were developed.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Ford (1999)	84 veterans seeking inpatient treatment at a VA.	To determine comorbidity and differentiation of DESNOS and PTSD.	Quantitative, multivariate logistic regression analyses. Measures utilized: SCID-P (inclusive of Westen's Social Cognition Object Relations Scale), SIDES, Penn Inventory for PTSD, Mississippi Scale for Combat-Related PTSD (M-PTSD), and Impact of Event Scale (IES).	Disorders of extreme stress not otherwise specified (DESNOS) and PTSD found to be comorbid yet distinct among military veterans. PTSD diagnosis was associated with elevated levels of war-zone trauma exposure, witnessing atrocities, and impairment on the M-PTSD and Penn Inventory. DESNOS classification (but not PTSD) was associated with early childhood trauma and participation in war-zone atrocities, extreme levels of intrusive trauma reexperiencing, impaired characterological functioning, and use of intensive psychiatric services. Traumatization was distinct from PTSD examples when variables that looked like DESNOS were controlled for. Atrocity exposure was a risk factor for DESNOS but not PTSD.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Foy, Sipprelle, Rueger & Carroll (1984)	43 Vietnam Era veterans seeking treatment at a VA.	To explore the impact of premilitary, military experience, and combat exposures on PTSD.	Quantitative. Created a combat scale, PTSD scale, and adjustment scale.	Combat exposure & military adjustment are related to PTSD and post military adjustment, which suggests that combat exposure is moderated by concurrent psychosocial support; limitations: data retrospective, there may be a bias in memory; worse military adjustment could be caused by PTSD rather than the other way around.
Hendin & Haas (1984)	10 veterans who did not develop PTSD after intense combat.	To elucidate traits protective and adaptive at preserving emotional stability in unstructured, unstable contexts.	Qualitative, case studies.	Protective traits identified: calmness under pressure, intellectual control, acceptance of fear, and lack of excessively violent or guilt-arousing behavior. Introduced the notion that post combat stress disorders are not so much a function of the objective war zone experience, but rather how those experiences are individually perceived and internalized by combatants.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Henning & Frueh (1997)	Male Veterans (N=40) with combat related PTSD from a VAMC outpatient clinic.	Examine the relationship between the development and maintenance of PTSD with combat guilt in veterans.	Quantitative, descriptive, regression analyses. Utilized the Revised Combat Scale (RCS) to asses specific combat situations; M-PTSD for PTSD; The Guilt Inventory: Trait Guilt (TGI-TG); Clinician Administered PTSD Scale (CAPS); and Combat Guilt Scale (CGS).	Severity of guilt regarding combat was positively correlated with re-experiencing and avoidance symptoms of PTSD and PTSD severity. Researchers propose that treatment aim to treat cognitive-emotional issues related to guilt.
Hoge, Castro, Messer, McGurk, Cotting & Koffman (2004)	OIF/OEF veterans (N=6201).	To provide an initial look at the mental health of members of the Army and the Marine Corps who were involved in combat operations in Iraq and Afghanistan.	Quantitative, descriptive. Self-reported, anonymous survey was compared with a 17-item National Center for PTSD Checklist of the Department of Veterans Affairs and the patient health questionnaire developed by Spitzer et al.	Exposure to combat high for those deployed to Iraq, who also screened higher for PTSD, depression, and generalized anxiety. Stigma may be a barrier to healthcare acquisition for this population. PTSD was correlated with combat experiences (i.e. being shot at, wounded or being injured).

Study	Population	Purpose	Analyses/Measures	Overview of Results
Hsieh & Shannon (2005)	N/A.	To describe three approaches to qualitative content analysis.	Research methodology; conventional, directed, summative, inductive, and deductive approaches to content analyses.	Coding schemes, origins of codes, and threats to trustworthiness are presented for each approach.
Kashdan, Elhaib, & Frueh (2006)	246 male combat veterans who presented to outpatient treatment of combat-related PTSD at a VAMC.	To explore the relationships between anhedonia and PTSD symptom clusters, including their role in predicting psychiatric comorbidity.	Quantitative; logistic regression of bivariate relationships. Anhedonia measured by the Beck Depression Inventory (BDI); PTSD measured by the Clinician-Administered PTSD Scale (CAPS).	Diminished appetitive functioning provided additional information above and beyond symptoms reflecting negative affect in understanding the nature and correlates of PTSD.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Kashdan, Elhai & Frueh (2007)	Combat veteran outpatients from an archival data set (N=227).	To distinguish and better understand veterans with PTSD and symptom overreporting presentation styles.	Quantitative, sequential logical regression analysis. Symptom overreporting was defined as scores greater than eight on the Infrequency-Psychopathology (Fp) scale of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2).	Veterans endorsing greater anhedonia and diminished positive affect were more likely to be overreporters. Diminished positive emotions and their behavioral consequences were uniquely associated with veterans' psychological experiences. Veterans' differential psychological experiences result in unique behavioral expression such as diminished positive emotions and anhedonia.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Kaylor, King & King (1987)	67 studies that investigated the relation between military service in Southeast Asia and postmilitary health utilizing Vietnam veterans, Vietnam-era veterans, and nonveterans.	To integrate research on the psychological status of Vietnam veterans.	Meta-analysis of 67 studies.	Mean effect size, comparing Vietnam veterans to others across a variety of mental health indicators was significant-0.53. Vietnam veterans were significantly different from both Vietnam-era veterans and nonveterans, indicating a "'Vietnam effect.'"
King, King, Gudanowski & Vreven (1995)	1,632 Vietnam theatre veterans from the NVVRS (1,200 men & 432 women).	To assess the differential influence of a variety of war zone stressors upon the development of PTSD.	Quantitative, intercorrelations and structural equation modeling procedures. Measures utilized: Mississippi Scale for Combat-Related PTSD and DIS.	Four conceptualizations of war zone stressor experiences were defined: traditional combat, atrocities-abusive violence, perceived threat, and malevolent environment. Found that the development of PTSD was influenced differentially depending on the type of stressor that was experienced.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Krueger (1998)	N/A.	To serve as a practical guide for applied research.	A practical guide for applied research.	Made a distinction between focus groups and other similar research procedures. Depicted applicability/appropriate usage of Frequency and Extensiveness measures.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Kubany, Abueg, Kilauano, Manke & Kaplan (1997)	Study 1: N/A. Study 2: 47 Vietnam veterans and six veterans from Korea or World War II. Study 3: six PTSD experts, several focus groups, and two PTSD counselors. Study 4: 32 male Vietnam combat veterans attending residential treatment at the National Center for PTSD in Menlo Park, California. Study 5: 74 male Vietnam veterans living in Hawaii.	To develop an instrument to assess guilt related to particular to involvement in war and to determine the types of events connected to trauma related guilt.	Quantitative, multimethod strategy. Measures utilized: Sources of Trauma-Related Guilt Survey—War-Zone Version (STRGS-WZ); Personal Feelings Questionnaire (PFQ): to assess for guilt and shame; Guilt Inventory (GI); Trauma-related Guilt Inventory (TRGI); The Mississippi Scale; the PTSD Checklist; Impact of Event Scale (IES); Beck Depression Inventory; Zung Self-Rating Depression Scale; Rosenberg Self-Esteem Scale; Social Avoidance and Distress Scale; and the Single item: "How often do you experience serious thoughts about suicide", with five response options from "Never" to "Very Frequently."	Instrument correlated with measures of guilt, PTSD and Depression. Findings confirm that Vietnam veterans have multiple sources of severe war-related guilt. Guilt comes from inaction and is correlated with PTSD.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Kulka, Schlenger, Hough, Jordan, Marmar, & et al. (1990)	3016 U.S. Vietnam Era Veterans.	To highlight the findings of the NVVRS.	N/A; bullet points listed.	The NVVRS is the most rigorous and comprehensive study to date of the prevalence of PTSD and other psychological problems in readjusting to civilian life among Vietnam veterans; lifetime prevalence of PTSD was indicated in 30.6% of men and 26.9 % of women; NVVRS findings indicated a strong relationship between PTSD and other postwar readjustment problems; exposure to combat increases prevalence of PTSD and other postwar psychological problems significantly.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Laufer, Gallops & Frey-Wouters (1984)	350 Vietnam Veterans.	To develop and test a model of war trauma containing three elements: combat experience, witnessing abusive violence, and participation in abusive violence.	Quantitative, hierarchical regression analysis.	The three elements of war trauma had different affects upon postservice psychological states of veterans. Found that exposure to, or participation in, atrocities increase symptoms throughout the lifespan, and exposure to traditional combat, as opposed to atrocity exposure, have different outcomes on mental health. This emphasizes the importance of specifying what constitutes "the experience" when attempting to link traumatic events to subsequent psychological patterns.
Lazarus, DeLongis, Folkman & Gruen (1985)	100 community-residing adults (52 women and men) aged 45 to 64.	To closely examine the problem of confounding and circularity in stress research and provide associated data.	Quantitative, comparative analysis, factor analysis. Measures utilized: Hassles Scale, Hopkins Symptom Checklist.	Appraisal process should not and cannot be removed in the measurement of psychological stress. Stress presented as a complex rubric rather than a simple antecedent variable.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Litz, Stein, Delaney, Lebowitz, Nash, Silva & Maguen (2009)	N/A.	To provide conceptual model of Moral Injury and outline needed research inquiries associated with the concept.	A review of the literature.	Defines moral injury, moral repair, chronic symptoms of MI, and addresses treatment of MI in theory.
MacNair (2002)	NVVRS combat veterans (N=1638).	To examine the impact of killing and perpetration of atrocities on PTSD.	Quantitative, comparison of mean scores. PTSD measured via the M-PTSD, NVVRS atrocity/disproportionate violence question grouping/scheme, perpetration vs. nonperpetration groups, battle intensity measured via self-rated scale: none, light, moderate, and heavy.	Killing and atrocities were predictive of higher M-PTSD scores. The atrocities group raised the mean of the killing group, yet killing was also significant on its own. Battle intensity was not a viable explanation for increased scores.
Maguen, Metzler, Litz, Seal, Knight & Marmar (2009)	NVVRS male combat subgroup (N=1200) and clinical interview subsample (N=260).	To examine impact of killing on post war mental health outcomes.	Quantitative, multiple regression analyses. Utilized M-PTSD, MMPI-2's PK scale, DIS diagnosis of depression, PERI traumatic scale, and measures of current violence	Killing in general was associated with PTSD, dissociation, functional impairment, and post war violent behavior. However, a link between killing and a depression diagnosis was not shown.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Maguen (2010)	2,797 OIF soldiers who presented a postdeploy-ment screening from November 2005 to June 2006.	To examine the mental health impact of reported direct and indirect killing among soldiers returning from Operation Iraqi Freedom.	Quantitative, multiple and logistic regressions. Postdeployment screening; PTSD assessed by the Primary Care PTSD Screen (PC-PTSD); depression assessed by the Patient Health Questionnaire (PHQ-9); alcohol abuse assessed by the Alcohol Use Disorder Identification Test (AUDIT); hostility/anger assessed by the Dimensions of Anger (DAR).	Even after controlling for combat exposure, killing was a significant predictor of PTSD symptoms, alcohol abuse, anger, and relationship problems.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Martz, Bodner, & Livneh (2009)	3,016 Vietnam veterans from the NVVRS.	To investigate whether coping moderated the association between disability status and the outcome of psychosocial adaptation while controlling for demographic variables, posttraumatic stress disorder, and environmental conditions and social support.	Quantitative, multiple regression analysis.	Existence of a disability significantly and negatively predicted psychosocial adaptation after controlling for pre-mentioned variables. Disability and adaption were positively moderated by problem-solving coping.
McNally (2006)	N/A.	To discuss the controversy concerning the psychiatric costs of war.	A critical review of the literature.	Discusses NVVRS and CDC findings related to subsequent PTSD in Vietnam veterans. Emphasized that Dohrenwend et al. found that the NVVRS overestimated the rate of PTSD by 40%.
McNally (2007)	N/A.	To critique the NVVRS, calling into question its combat related PTSD estimates.	A critical review of the literature.	Offered other plausible explanations for the high prevalence rate of TPSD in the NVVRS.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Schlenger, Kulka, Fairbank, Hough, Jordan, & et al. (2007)	N/A.	To provide perspective on findings reported by Dohrenwend et al. (2006) and McNally (2006).	A review of the literature.	Dohrenwend et al.'s study, which evaluated empirically a variety of the critics' alterative explanations and found little support for any of them, represents a landmark contribution to the trauma field. McNally's commentary misrepresented the history and context of the NVVRS, Dohrewend et al.'s findings, and their importance.
Singer (2004)	A subgroup of Vietnam veterans with PTSD who committed atrocities during their service.	To discuss the origins of atrocities during war, accompanying emotional responses, and associated recommendati ons for treatment.	Qualitative; antidotal/case studies. Discusses the link between war and atrocities; differentiated between shame and guilt; provides recommendations for treatment.	Symptoms associated with atrocities during war: shame, guilt, self-hatred, and a sense of being interminably unforgivable. Inability to express remorse was put forth as a key dynamic in treatment; working through shame, guilt, and self-hatred are fundamental to the expression of remorse.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Suvake, Vogt, Savarese, King, & King (2002)	Stratified random sample of 408 (300 men and 108 women) from the NVVRS.	To examine long-term general life adjustment among Vietnam veterans. One particular concern was the relationship between coping strategies used in the warzone and the outcomes of achievement, life satisfaction, and lifetime adaption as a function of combat exposure.	Quantitative; used factor analysis, descriptive statistics, zero order or bivariate correlations, and hierarchical multiple regression analyses. Combat exposure measure used the "Vietnam Experiences" section of the NVVRS; coping was measured by the Ways of Coping Checklist.	Greater reliance on both types of emotion-focused coping in the Vietnam warzone were associated with lower levels of postwar long-term general life adjustment. Only at moderate levels of combat exposure is problem-focused coping an appropriate and useful strategy.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Thompson, Gottesman, & Zalewski (2006)	NVVRS: male Vietnam Theater-Veterans (N=1200) and male Vietnam Era-Controls (n=424) VES: 4,462 veterans from U.S. Army records.	To compare alternative criteria for estimating the prevalence of PTSD using the NVVRS and VES.	Quantitative, used narrow and specific, and broad and sensitive sets of criteria to derive estimates for combat-related PTSD.	Estimates produced similar prevalences for both narrow and broad definitions of combat-related diagnoses of PTSD between the two studies.
Yehuda, Southwick & Giller (1992)	40 patients with combat-related PTSD.	The objective was to explore aspects of trauma associated with severity of PTSD in Vietnam Veterans.	Quantitative, used several ratings of stress exposure and symptom severity; M-PTSD (cutoff 107), Schedule for Affective Disorders and Schizophrenia (SADS), Figley Scale for Combat Posttraumatic Stress Disorder, Impact of Event Scale, Hamilton Rating Scale for Depression, Combat Exposure Scale, and Atrocity Scale.	Link observed between wartime atrocity exposure and increased symptomatic severity. Data suggest enduring effect and severity of PTSD symptoms were associated more with exposure to brutal human death and suffering than the threat of death associated with combat.

Study	Population	Purpose	Analyses/Measures	Overview of Results
Zatzick, Marmar, Browner, Metzler, Golding, et al. (1997)	1,200 male Vietnam theater veterans.	To help with under-standing the relationship between PTSD, functioning, and quality of life.	Quantitative, logistic models. PTSD (M-PTSD), diminished wellbeing, physical limitations, bed day in the past 2 weeks, compromised physical health status (Rand Health Insurance Experiment), currently not working, and perpetration of violence (Conflict Tactics Scale) were examined.	Risks of poorer outcome were significantly higher in subjects with PTSD than in subjects without PTSD in five of the 6 domains. Suffering associated with combat related-PTSD extends beyond the signs and symptoms of the disorder to broader areas of functional and social morbidity.
Zhang & Wildemuth (2009)	N/A.	To provide a step by step explanation of how to perform qualitative analysis of content.	Qualitative content analysis.	The goal is to identify important themes or categories within a body of content, and to provide a rich description of the social reality created by those themes/categories. Careful data preparation, coding, and interpretation support the development of new theories/models, as well as validate existing theories of a phenomenon.