Posttraumatic Stress Disorder, Suicide, and Self-Forgiveness Among Operation Enduring Freedom/Operation Iraqi Freedom Veterans

Katherine McDermott

Queens University of Charlotte

Under the Direction of Dr. Grace Buttriss, DNP, RN, FNP-BC, CNL

Abstract

Background: The incidence of suicide deaths among the OEF/OIF veterans with Posttraumatic Stress Disorder (PTSD) is increasing. Self-forgiveness has been identified as a protective factor for suicide in previous studies among non-military population. However, there are limited studies that has investigated the role of self-forgiveness and suicidal behavior among OEF/OIF veterans with PTSD

Objectives: To examine the relationship of self-forgiveness with suicide rates among OEF/OIF veterans diagnosed with PTSD.

Methods: A descriptive review of the existing published data regarding PTSD, suicide attempts, and the use self-forgiveness as a protective factor for suicide.

Results: Consistent with our hypothesis, research has shown positive benefits of forgiveness interventions aimed at forgiveness of self. Self-forgiveness can help change the anguish or woe into endurable pain, which in turn can reduce or prevent suicidal behaviors.

Conclusion: There is a strong link between suicide behaviors and PTSD among OEF/OIF veterans. Findings in this study suggest that self-forgiveness may moderate suicidal behaviors. Incorporating self-forgiveness as part of nursing interventions when providing care to OEF/OIF veterans may help reduce suicide rates among this population.

Table of Contents

Posttraumatic stress disorder (PTSD) is one of the most common mental health problems experienced by Operation Iraqi Freedom/Operation Enduring Freedom (OEF/OIF) veterans after military deployment (Borders, Rothman, & McAndrew, 2015; Church& Palmer, 2014; Huang & Kashubeck-West, 2015; McCarthy, Thompson, & Knox, 2012). Along with traumatic brain injury (TBI) and major depression, PTSD makes up the "invisible wounds" (Church & Palmer-Hoffman, 2014). The prevalence of PTSD among OEF/OIF veterans entering Veterans Affair (VA) health care is increasing (Borders, Rothman, & McAndrew, 2015; Church & Palmer, 2014; Huang & Kashubeck-West, 2015). McCarthy, Thompson, and Knox state that as of 2009, there were 1.6 million US military members that had been deployed in OEF/OIF combats. Previous study show that there 15.6% to 17.1 % of returned Iraqi combat veterans (N = 1,709) developed PTSD (Hoget et al., as cited in Huang & Kashubeck-West, 2015). Likewise, approximately 44% returned veterans from Iraq combat (N = 2,275) and Afghanistan combat (N = 1,814) reported clinically significant levels of PTSD (Lapierre, Schwegler, & LaBauve, as cited in Huang & Kashubeck-West, 2015). While in the study of 2,863 Iraq war veterans, 16.6 % met the diagnostic criteria for PTSD (Hoge, Terhakopianm Castro, Messer, & Engel, as cited in Huang & Kashubeck-West, 2015).

Numerous studies show PTSD is associated with many psychiatric comorbidities (Borders, Rothman, & McAndrew, 2015; Church& Palmer, 2014; Doran, Kalayjian, Toussaint, & DeMucci, 2012; Huang & Kashubeck-West, 2015; James, Strom, Leskela, 2014) and a poorer general health, more sick call visits, more physical symptoms, more missed workdays, and high somatic symptom severity (Huang & Kashubeck-West, 2015). In addition, there are also many studies that linked PTSD with suicide ideation and

suicide attempts among veterans due to exposure to morally injurious behaviors (Bryan, Panagioti, Gooding, & Tarrier, 2014).

Problem situation and its significance

Due to the increasing number of suicide among OEF/OIF veterans suffering from PTSD, it is important to explore how protective factors like self-forgiveness (Hirsch, Webb, & Jeglic, 2012) can either directly reduce the risk for suicide ideation and attempts or decrease the effects of the risk factors of suicide among this vulnerable population. There is a limited knowledge of how self-forgiveness can help prevent veterans suffering from PTSD from thinking about suicide and from making suicide attempts.

Purpose

The purpose of this project is to provide a descriptive review of the existing published data regarding PTSD, suicide attempts, and the use self-forgiveness as a protective factor for suicide.

Goal

The goal of this project is to examine the relationship of self-forgiveness with suicide attempts among OEF/OIF veterans diagnosed with PTSD.

Objective

The data collected in the study will be used to guide the nurses in implementing suicide prevention precautions as they provide care to patients with PTSD on the Specialized Intensive Posttraumatic Stress Disorder Inpatient Unit (SIPU) or also known as 8-3, at the Veterans Affairs Medical Center (VAMC) in Salisbury, North Carolina (N.C.). The SIPU unit in Salisbury VA is one of the existing four SIPU units in the

country and currently ranks number one among the four SIPUs in the nation (Dr. K. Humphrey SIPU coordinator, electronic communication, March 19, 2015).

Conceptual framework

There are different definitions of self-forgiveness. Clear definitions of self-forgiveness are vital because misunderstanding can create confusion. Forgiveness is not the same thing as forgetting. Self-forgiveness is defined as "a set of motivational changes whereby one becomes decreasingly motivated to avoid stimuli associated with the offense, decreasingly motivated to retaliate against the self and increasingly motivated to act benevolently toward the self" (Hall & Fincham, as cited in Cornish and Wade, 2015, pp. 96-97). Fetzer Institute (as cited in Hirsch, Webb, & Jeglic, 2012) defined self-forgiveness as forgiveness of one's own thoughts or behaviors. Self-forgiveness also has a specific aspect of religiousness and spirituality, but is not limited by traditional religious and spiritual factors and is practiced by both religious and non-religious sectors (Ludwig & Vander Laan, as cited in Hirsch, Webb, & Jeglic, 2012; Worthington, Witvliet, Pietrini, & Miller, as cited in Hirsch, Webb, & Jeglic, 2012). Furthermore, Enright and the Human Development Study Group (as cited in Cornish & Wade, 2015) defined self-forgiveness as "a willingness to abandon self-resentment in the face of one's own acknowledged objective wrong, while fostering compassion, generosity, and love toward oneself" (p.97).

In addition, Cornish and Wade (2015) state that self-forgiveness, which consists of four components, is defined as "a process in which a person (a) accepts responsibility for having harmed another; (b) expresses remorse while reducing shame; (c) engages in restoration through reparative behaviors and a recommitment to values; and (d) thus

achieves a renewal of self-respect, self-compassion, and self-acceptance" (p.97). The four components, also called four R's, can either be thought of sequentially or interrelated. Individuals struggling with shame, guilt, and self-condemnation, which are common among military personnel and veterans suffering with PTSD, can apply this process of self-forgiveness (Cornish & Wade, 2015).

Morally compromising circumstances are common in military combat (Cornish & Wade, 2015). Combat can expose people to stress, pressure, and anxiety, which put the military veterans at potentially high risk for making decisions and acting in ways conflicting to their own moral standards (Worthington & Langberg, 2012). Given the moral injury experienced by the military veterans, it is difficult for the veterans returning from combat to resolve such conflicts. Lack of self-forgiveness is not only linked with poor physical outcomes (Hirsch, Webb, & Jeglic, 2012; it is also significantly linked with poor psychological outcomes (Cornish & Wade, 2015; Hirsch, Webb, & Jeglic, 2012). Self-forgiveness among veterans with PTSD might be a crucial part of their comprehensive treatment because it can provide a way to heal moral injuries (Litz et al., as cited in Cornish & Wade, 2015).

Methodology

A literature search was performed using the following electronic databases: PsycINFO and CINAHL. The search included English articles published from January 2008 to March 2015. The search words used separately and in different combinations were: PTSD, military veterans, OEF/OIF, suicide rates, suicide attempts, self-forgiveness, moral injury, hope, trauma, protective factors, and mental health. A total of 418 articles were identified, and of these articles, three articles were chosen for this descriptive

review. The search strategy and the assessment of the quality of the studies were based on the strength of evidence, date of literature, and relevant application to topic. The reference lists of the included articles were also examined to identify additional studies.

Inclusion criteria considered for review are studies that provided information on post-deployment PTSD during the recent conflicts from the four branches of military and the use self-forgiveness as a protective barrier of suicide among two unique study populations (non-military) and among the military personnel and veterans. Studies from prior conflicts such as The Vietnam War, Persian Gulf, and Korean War are not included.

Data collected from each study included the statistical analyses, outcome measures, and population being studied (Table 1). A demographic profile of the OEF/OIF veterans who screened positive for PTSD from 2001 to 2008 from the U.S. Department of Veterans Affairs [VA] (n.d.a) study, which include whether they are using the VA health care or not, rates of PTSD by gender, and race/ethnicity were also collected (Table 1).

Due to the large heterogeneity of the study designs and methodologies, meta-analysis is not used in this project. The inconsistent measurement used to identify predictors and protective factors of suicide across studies due to different instruments being used was also one of the reasons why a meta-analysis is not feasible.

No Institutional Review Board (IRB) approval is required from the Veterans Health Affairs Medical Center- Salisbury and from Queens University of Charlotte as this Capstone Project will only review previous published evidence-based studies.

Hypothesis: Self-forgiveness may buffer the effect of guilt on psychopathological outcomes such as suicidal behavior among OEF/OIF veterans with PTSD.

Review of the literature

PTSD and suicide

According to the statistical report from the Congress of the United States Congressional Budget Office [CBO] (2012), there were approximately 11,000 suicide attempts in the fiscal year of 2009 among the veterans who went to combat, and 6.2 % were actually documented as fatal. The increasing number of veterans' suicide has been of concern in the U.S. military. The suicide rate has reached a 28-year high in 2008 not just from the returning members, but also among the active members (Wieland, Hursey, & Delgado, 2012). "Suicide is ranked the second leading cause of death in the United States Armed Forces" (Hoyert & Xu, as cited in Bryan et al., 2014, p. 154) and is the 10th leading cause of death for the general population in the country (Centers for Disease Control [CDC], 2014; Hoyert & Xu, as cited in Bryan et al., 2014). The Department of Defense [DOD] reports the suicide rate of military personnel has more than doubled and has recently exceeded the general population suicide rate since OEF/OIF (as cited in Bryan et al., 2014). A recent study also shows that it is estimated that a veteran dies from suicide about every 80 minutes (Center for New American Security, as cited in MacEachron & Gustavsson, 2012).

There is an increasing evidence of linking PTSD and suicide ideation and attempts among active military personnel and veterans. In fact, the rates of suicide in some branches of the military have exceeded the rates of suicide rates from the general population (Panagioti, Gooding, & Tarrier, 2014). PTSD is common among military veterans (Borders, Rothman, & McAndrew, 2015) and is one of the most prevalent psychiatric disorders among OEF/OIF veterans (Jakupeak et al., 2009). A long-term

study by the VA (n.d.a) on the health of 30,000 OEF/OIF veterans who were deployed and 30,000 OEF/OIF veterans who served elsewhere during the same time period reveals the overall percentage of the study participants who screened positive for PTSD was 13.5 %. Among the different military branch, there were more Marine Corps veterans who screened positive for PTSD, followed by the Army veterans, Navy veterans, and Air Force veterans (see Figure 1). Institute of Medicine [IOM] (as cited in Bagalman, 2013) reports that recent estimates of PTSD prevalence among OEF/OIF veterans range from 13 % to 20 %. The study of Jacupcak et al. (2009) state that OEF/OIF veterans who screened positive for PTSD were four times more likely to endorse suicidal ideation than their counterparts without PTSD. "A PTSD diagnosis has been found to be uniquely associated with suicidal ideation over and above the effects of other psychiatric disorders and simple exposure to traumatic events" (Wilcox, Storr, & Breslau, as cited in Panagioti, Gooding, & Tarrier, p. 50).

The study of Kaplan, McFarland, Huguet, and Valenstein (2012) state male veterans (N = 8440) were at higher risk of suicide in all age groups, except in the older group (> 65), when compared to non-veterans. The increased risk of suicide among OEF/OIF veterans is higher due to multiple and longer deployments (Hyman, Ireland, Frost, & Cottrell, 2012; Pietrzak et al., 2010) and the use of firearms were identified as the top method used for committing suicide (Hyman, Ireland, Frost, & Cottrell, 2012). However, the VA (n.d.a) states that PTSD is not merely related to deployment. A recent study by the VA (n.d.a) reports that non-deployed OEF/OIF veterans also screened positive for PTSD and that it is also more common among male veterans than female veterans (see Figure 2).

An additional study about the Iraq and Afghanistan war veterans, who were deployed between 2001 and 2007, showed a lower risk of suicide compared to non-deployed veterans of the same era (VA, n.d.b). When compared to the general U.S. population, the non-deployed veterans had a 61 % higher risk of suicide while the deployed veterans had a 41 % higher risk of suicide. The same participants in this study were followed until 2009 and results show that there were more non-deployed suicides and it was higher among male veterans (see Figure 3). It was also reported in this study that the rate of suicide was greatest within three years after leaving the branch of service (VA, n.d.b).

Moral injury

There are multiple studies that have identified the different precursors of suicidal behavior among veterans and non-military samples, with results generally maintaining the view that risk factors for suicidal behaviors are the same for military veterans as they are for non-military samples (Bryan, Theriault, & Bryan, 2014). Moral injury has been identified by multiple research studies as a precursor for suicidal behaviors (Bryan et al., 2012)

Bryan, Theiault, and Bryan (2014) note that although morally injurious behaviors are not necessarily unique to the military, military are often exposed to these situations, in which an individual is required to perpetuate or cause harm to others (i.e. aggression, violence, killing) or unable to prevent a negative outcome (i.e. unable to save comrade's life, or witness events that are not in line of their moral beliefs (i.e. children getting killed during combat). Moral injury, according to Bryan, Theriault, and Bryan (2014), may therefore be a suicide risk factor that is unique to military personnel and other professions

with similar job duties. Some of the proposed symptoms of moral injury like nightmares, intrusive memories, and emotional detachment are also similar to PTSD's symptoms.

OEF/OIF conflicts, according to previous studies, seem to be more traumatic and war-related trauma were more complex, which contribute to moral injury experienced military personnel returning from combat (Carson, Stromwall, & Lietz, 2013; McCarthy, Thompson, & Knox, 2012). Moral injury can be precipitated by various events: betrayal by peers or leaderships, self or trusted civilians; excessive violence that is inhumane, cruel, depraved; incidents involving civilians. When someone experiences moral injury, depression, chronic guilt and shame may result (Bryan, Theriault, & Bryan, 2014).

The study of Huang and Kashubeck-West (2015) show the debilitating severity of guilt reported by veterans with PTSD. In the study of Bryan, Ray-Sannerud, Morrow, and Etienne (2013), "guilt was more strongly associated with suicidal ideation among personnel with direct combat exposure compared with those who had no direct combat exposure" (p. 93). When guilt is not addressed, people who suffer from PTSD are more likely to have self-injurious thoughts and behaviors (SITB) and may also end up committing suicide (Bryan, Bryan, Morrow, Etienne, & Ray-Sannerud, 2014). Guilt related to combat exposure is pointed out to be the most significant predictor of both suicide preoccupation and suicide attempts (Hendin & Haas, as cited in Huang & Kashubeck, 2015).

Self-forgiveness

According to Bryan, Theriault, and Bryan (2014)**, "**evidence suggests that self-forgiveness may function as a mechanism for better mental health and decreases the likelihood of suicidal ideation" (p.2). In the study of Doran, Kalayjian, Toussaint, and DeMucci (2012), results show that severity of symptoms of PTSD among the 53 adults, who have witnessed the brutality of civil war in Sierra Leone, is associated with likelihood for forgiveness for some demographic groups, mostly the older women participants. Another study with sexual assault victims also show that self-blame is linked with poor recovery (Woodhams, Hollin, Bull, & Cooke, 2012).

Literature has shown that combat exposes the military veterans to moral injury. Cornish and Wade (2015) state that combat creates a milieu in which typical moral laws are deferred. As a result, returning military veterans from combat may experience "self-condemnation, self-hatred, shame, and guilt for the ways they acted or failed to act while in the combat theater" (Cornish & Wade, 2015, p. 101).

Furthermore, the study of Cornish and Wade (2015) also state that lack of self-forgiveness among veterans is a predictor of PTSD. Therefore, "helping veterans forgive themselves might be a crucial part of comprehensive PTSD treatment because it can provide a way to heal moral injuries" (Litz et al., as cited in Cornish & Wade, 2015).

Psychologist Dr. Everett Worthington, Jr. constructed a five-step model towards forgiveness named the REACH model. The acronym in this model stands for: Recall the hurt; Empathize with the offender; Altruistic gift of forgiveness; Commit publicly to forgive; and Hold on to forgiveness. This model is used in psycho-educational groups because of its therapeutic components that can aid in self-forgiveness (Worthington & Langberg 2012).

Results

It was hypothesized that lack self-forgiveness may buffer the effect of guilt on suicidal behavior among OEF/OIF veterans with PTSD. Consistent with our hypothesis research has shown positive benefits of forgiveness interventions aimed at forgiveness of self. As one lets go and accepts the anger, fury, and hatred, it can become a way to change the torment or agony into tolerable pain, which in turn can reduce or prevent suicidal behaviors.

Discussion

Description of How Findings Relate to Literature

Self-forgiveness can be beneficial in people who have experienced trauma as it can serve as a protective factor (Bryan, Theriault, & Bryan, 2014; Doran et al., 2012) and can also be a moderator for suicidal thoughts (Hirsch, Webb, & Jeglic 2012). Bryan, Theriault, and Bryan (2014) also suggest that self-forgiveness may also reduce risk for suicide attempts among veterans with a history of suicide ideation. Self-forgiveness may serve a protective function. This finding supports the perspective linking moral injury and guilt with increased risk for suicide ideation and attempts among military personnel. Having a hard time to forgive self or to let go of negative thoughts is a symptom of moral injury.

This descriptive review suggests another additional hypothesis for the low suicide rate among veterans who have been deployed. While some studies show that deployment and redeployment may increase risk of suicide (Hyman, et al., 2012; Kaplan et al., 2012), a study from the VA (n.d.b) states otherwise. This also supports the findings of the studies of Bryan, Theriault, and Bryan (2014) and McCarthy, Thompson, and Knox

(2012). Combat exposure may have direct effect on PTSD, but may not have direct effect on suicidal behaviors.

Implications for Nursing

Considering these findings, it is important for nurses who provide care to veterans with PTSD to take into consideration on how to incorporate self-forgiveness while they provide care to veterans with PTSD. While nurses usually assess for suicidal ideation, it is not typical for them to assess for self-forgiveness when providing care to veterans with PTSD. Based on this descriptive review, there were limited studies that show self-forgiveness being measured among OEF/OIF veterans, including veterans from other eras. This is something that may be considered as a part of the holistic care the VA wants to provide the veterans.

With the prevalence of PTSD and the increased rate of suicide among OEF/OIF veterans, the VA offers different PTSD screening and treatment efforts. The VA policy is to screen veterans new to the VA system for PTSD every year for the first five years and every five years thereafter, unless there is a clinical need to screen earlier (VA, as cited in Bagalman, 2013). With the veterans obtaining care from non-VA facilities, it is also vital for non-VA nurses to explore PTSD history during nursing assessment, as PTSD has been found to be a predictor of suicide. Nurses working in non-VA facilities may also consider incorporating treatments and interventions that facilitate self-forgiveness.

For instance, one of the CPT groups on 8-3, which is led by the veterans' respective process leaders, tackles about self-forgiveness. The process leader group is made up of psychologists and a clinical social worker. This particular CPT group is meant to help the veterans to let go of the guilt they have been harboring after returning

from combat. This CPT group will also prepare the veterans for the Ceremony for the Dead. Prior to the completion of the program, which runs for six weeks, the veterans has to do this ceremony, wherein each veteran will write the name of their comrades that they want to honor on a piece of paper. To honor their fallen comrades, each veteran then does a brief eulogy, and afterwards, put the piece of paper where they have written the names in an urn and burn the paper. The ashes are put in a wooden box and are left at Vietnam Memorial in Washington, D.C. The trip to D.C. also involves a ceremony at the Vietnam Memorial (for the Vietnam veterans) and Station 60 (for the OEF/OIF veterans), depending on what military eras comprise the current census.

For the veterans to be able to let go of their anger, hatred, and resentment, it is important that they have already forgiven themselves in response to the trauma that they have experienced. It means they are already ready to move forward.

Limitations

Several limitations of this descriptive review should be noted. The population samples of the studies reviewed do not represent the general population of OEF/OIF veterans. It is also important to note that there are different instruments used in measuring suicide and self-forgiveness. The limited time allowed in completing this paper and not having direct access on data also contributed to the limitation of this project.

Having direct access on data, like reviewing the charts of OEF/OIF veterans with PTSD may have also yielded a more specific finding, like how many OEF/OIF patients with PTSD have committed suicide attempts or successfully completed a suicide. The literature that were found in the search only talked about OEF/OIF suicide rates and did

not really say whether they were diagnosed of PTSD. Data could have been obtained since the writer currently works on the SIPU unit in Salisbury but not having the IRB approval prohibits disclosing such information in this study.

Implications for Further Study

Although self-forgiveness may have been a protective factor for suicide there are very limited studies that explore the relationship between self-forgiveness and suicide among OEF/OIF veterans with PTSD. Most of the studies about the protective factors talk about resiliency. Further study is needed to confirm these initial findings about the effect of self-forgiveness as a protective factor for suicidal behaviors in a larger sample of OEF/OIF veterans.

Conclusion

Suicide among OEF/OIF veterans with PTSD is a serious problem. Findings in this capstone project suggest that there is a strong link between PTSD and suicide behaviors and that self-forgiveness may moderate suicidal behaviors. Based on this descriptive review, it will be significant consideration to develop the incorporation of self-forgiveness as part of nursing interventions when providing care to OEF/OIF veterans, or the military veterans, as a whole.

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Table 1

Authors	Statistical Analyses	Outcome measures	Population being studied	Results

Bryan, Theriault, & Bryan (2014)	Multinomial logistic regression	Suicide ideation and suicide attempts Depression Posttraumatic stress Self-forgiveness	474 military personnel and veterans, representing all branches of service	Self-forgiveness may decrease the risk for suicide attempts among veterans and military personnel with a history of suicide attempts but did not affect the effects of posttraumatic stress on suicide behavior (Bryan, Theriault, & Bryan, 2014).
Doran, et al. (2011)	Pearson correlations and one-way analysis of variance (ANOVA)	Trauma exposure Posttraumatic symptomatology Forgiveness	53 adult residents of Sierra Leone who have chosen to enroll in the outreach program after the civil war in Sierra Leone from 1991 to 2002	Trauma exposure and traumatic stress were significantly correlated There is a stronger relationship between traumatic stress and forgiveness among older women.
Hirsch, Webb, & Jeglic, 2012	Bivariate correlations	Forgiveness of self and others, and forgiveness by God Depression Anger Suicidal thoughts and behaviors	372 college students from a psychology subject pool at an urban Northeastern U.S. university	Self-forgiveness was a significant moderator between anger and suicidal thoughts and behaviors. The promotion of

forgiveness may be useful in the prevention of suicide behaviors. (Hirsch, Webb, & Jeglic, 2012).

Table 2

Gender	Male	16.2 %
	Female	10.5 %
Race/Ethnicity	Hispanic	19.7 %
	White Non-Hispanic	14.1 %
	African-American Non-Hispanic	21.9 %
	Non-Hispanic - Other Race	16.2 %
	Missing	23.5 %
VA health care utilization	VA health care user	24.7 %
	VA health care non-user	9.8 %

Figure 1

Figure 2

Figure 3