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COMMUNITY STIGMATIZATION OF COMBAT-RELATED PTSD: THE INFLUENCE OF JUST WORLD BELIEFS, VICTIM BLAMING, AND SELF-COMPASSION

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A DISSERTATION APPROVED FOR THE
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Abstract

The fear of stigmatization by community members outside of the military has been identified as a significant barrier to care for military members seeking mental health services (Mittal et al., 2013). Research exploring the constructs that contribute to the stigmatizing views of military specific mental health issues is absent from current literature. This study examined variables, including just world beliefs, victim blaming, and self-compassion, and their predictive value regarding specific types of attitudes (i.e., mental health ideology, social restriction, benevolence) toward individuals with combat-related Posttraumatic Stress Disorder. Hierarchical regression models for each of the stigmatizing attitude scales showed different predictive patterns. However, self-compassion was not found to be a significant predictor of any of the stigmatizing attitudes scales. The findings provide guidance regarding the development of anti-stigma interventions and educational campaigns that may reduce levels of stigmatization by community members, with the long-term goal of diminishing military members' fear of community stigmatization as a barrier to seeking mental health services.

Keywords: combat-related PTSD, stigma, just world perspective, self-compassion

Chapter 1: Introduction

Barriers to mental health services continue to be one of the most prevalent medical issues facing military members (Ouimette et al., 2011). While the awareness of barriers to care is expanding, detailed research exploring contributing factors is limited (Blais, Renshaw, & Jakupcak, 2014). Osório, Jones, Fertout, & Greenberg (2013) identified the fear of stigmatization as a factor that accompanied a mental health diagnosis and deterred military members from seeking needed mental health services. For instance, military members considering mental health interventions reported concern that a psychological diagnosis would result in being perceived as weak, incompetent, and/or dangerous (Hoge, 2008). In addition, Mittal et al. (2013) found that military members believed that non-military community members had less empathy for military-specific mental health issues due to the voluntary nature of the soldiers' enlistment. This is consequential because research shows that a military member's support network plays a vital role in their decision to seek needed mental health services (Interian, Kline, Callahan, & Losonczy, 2012). These findings highlight the need to better understand community members' stigmatizing perceptions as potential barriers to mental health care for military members.

This study endeavors to shed light on factors that may influence community members' stigmatizing attitudes toward military members who are specifically affected by combat-related Posttraumatic Stress Disorder (PTSD), which, according to Galea et al. (2012), is an increasingly common diagnosis for military personnel. Examining aspects of stigmatizing attitudes regarding this signature military mental health issue

will provide insight and guidance to inform interventions and educational campaigns to combat this barrier to care.

Research exploring non-military community members' views on military mental health issues appears to be absent from the current literature, even though, as previously noted, military members have endorsed social stigmatization as a significant deterrent in their decision to seek needed mental health services (Stecker, Shiner, Watts, Jones, & Conner, 2013). Mittal et al. (2013) found that some military members believed that community members experience less empathy for military members with combat-related PTSD as opposed to a non-military related PTSD diagnosis. Military members reported believing that community members see combat-related PTSD as something the soldiers should have known to be a consequence of their military involvement (Mittal et al., 2013), thus framing combat-related PTSD as an expected consequence of the soldier's enlistment. Mittal et al.'s (2013) findings are valuable because they highlight the fear of community members' stigmatization as a potential barrier to mental health care. However, their research did not address factors contributing to those stigmatizing beliefs. The lack of research assessing non-military community members' attitudes makes it difficult to determine the type of intervention that would be most helpful in combating stigmatizing attitudes.

The idea that a combat-related PTSD diagnosis should be a foreseen and expected consequence of military enlistment (Mittal et al. 2013) may reflect a *just world perspective*, defined as adherence to the idea that people generally get what they deserve in life (Rüsch, Todd, Bodenhausen, & Corrigan, 2010). This perspective lends itself to the stigmatization of others (Rüsch, Todd, Bodenhausen, & Corrigan, 2010).

Individuals with a strong just world perspective “have a need to believe that their environment is a just and orderly place where people usually get what they deserve” (Lerner & Miller, 1978, p.1030). Just world beliefs among community members may help explain the underlying assumption of blame that permeates the stigma associated with mental illness and, in particular, combat-related PTSD.

The influence of a just world perspective on stigmatizing views of mental illness has been examined in current literature with conflicting results. McKechnie and Harper (2011) found that just world beliefs were unrelated to stigmatizing attitudes toward individuals with a mental health diagnosis. Other researchers have reported an association between harsh and stigmatizing attitudes and a just world belief (e.g. Khera, Harvey, & Callan, 2014; Rüsch, Todd, Bodenhausen, & Corrigan, 2010). However, there appears to be no current research that explores the influence of just world perspectives on the stigmatization of military-specific mental illnesses, such as combat-related PTSD. The knowledge gained from such research would guide efforts to understand contributing factors in the perceived lack of community support endorsed by military members.

Considering previously cited research showing that military members’ fear of stigmatization by community members influences their decision to seek mental health services (Hoge, 2008), exploration of self-perceptions of community members could be vital in understanding stigmatizing attitudes and addressing this barrier to care. Research consistently shows correlations between the acceptance and respect for self and the acceptance and respect for others (e.g. Epstein & Feist, 1988; Rogers, 1961; Sheerer, 1949). In other words, an individual’s negative attitude towards others may be

a reflection of a negative self-perception. With this in mind, the current study examined the construct of self-compassion, defined by Odon and Bricker (2015) as having a healthy, mindful, and kind attitude toward oneself, in relation to the stigmatization of individuals with combat-related PTSD.

Current research highlights self-compassion as an innovative measure of positive mental health, resilience, and overall well-being (Neff, 2003b; Neff, 2009; Smeets, Neff, Alberts, & Peters, 2014). Neff (2003a) pointed out that self-compassion reflects an integrated balance of concern for self and concern for others. The author goes on to say that such a balance "recognizes that all individuals should be treated with kindness and caring and that a compassionate attitude towards oneself is needed to avoid falsely separating oneself from the rest of humanity" (p. 96). Such a belief is divergent from constructs of stigmatization, such as the desire to socially distance oneself from marginalized individuals (Zartaloudi & Madianos, 2010). Akin and Akin (2015) reported that the three constructs embodied in self-compassion (i.e. self-kindness, common humanity, and mindfulness) have a positive correlation to a strong sense of community. In addition, Morley (2015) found that self-compassion is positively correlated to social connectedness. Perhaps the presence of self-compassion enables individuals to feel a stronger sense of social connection to other community members, making them less likely to hold stigmatizing attitudes. Conceivably, the examination of self-compassion could contribute to a better understanding of how self-perceptions will influence stigmatization of others.

The purpose of this study is to explore the influence of just world perceptions and self-compassion on community members' stigmatizing attitudes regarding combat-

related PTSD. The study also investigated relationships between combat-related PTSD stigmatization and demographics such as age, gender, education, and interpersonal exposure to individuals who have combat-related PTSD. Investigating the factors that contribute to community members' perspectives supports the advancement of informed interventions and educational opportunities to address the stigmatization regarding combat-related PTSD.

Chapter 2: Literature Review

Mental Health Stigmatization

Mental illness stigma can be found throughout history and is largely a consequence of public misconceptions (Hinshaw, 2006). Stigmatizing attitudes towards individuals with mental illness continue to be a widespread issue (Corrigan, 2000). Jones et al. (2014) reported that individuals with mental health issues who are contemplating seeking mental health services fear the reactions and views of others. In fact, the impact of public stigma of a mental health issue can be more powerful and damaging than the symptoms of the illness itself (Zartaloudi & Madianos, 2010).

Stigma has been defined as the negative effects of a label that are placed on a group (Hayward & Bright, 1997; Pescosolido, Medina, Martin, & Long, 2013). Historically, stigmatization has been used by societies as a way to set people apart from others and as a sign of disgrace, as well as to enforce perceived societal norms, exploit and dominate others, and avoid harm (Byrne, 2000; Phelan, Link, & Dovidio, 2008). Zartaloudi and Madianos (2010) added that stigma is a combination of perceived dangerousness and social distancing. The implications of these emotionally laden

descriptions give insight into the discomfort and turmoil that stigmatized individuals might feel when deciding whether or not to seek help for a mental illness.

Byrne (2000) reported that stigma is comprised of constructs including stereotypes, discrimination, and prejudice. Corrigan (2004) clarified that a stereotype is a belief about a group of people, prejudice is the adherence to a negative stereotype, and discrimination is behavior that aligns with the prejudice. An example in the context of this research could be that a community member does not hire (discrimination) an individual with combat-related PTSD because of their adherence to the assumed belief (prejudice) that people with combat-related PTSD are dangerous (stereotype). Information from the current study provides insight to help inform the development of anti-stigma interventions aimed at combating such mental health stigmatization as a barrier to care.

Perceived dangerousness is a key component of stigmatizing views towards people with a mental illness (Hayward & Bright, 1997; Zartaloudi & Madianos, 2010). Historically, individuals with mental illness have been stereotyped as weak, dangerous, and/or aggressive (Byrne, 2000; Zartaloudi & Madianos, 2010). These findings are congruent with research studies that indicate that fear is often a major contributor in the evolution of stigmatizing attitudes (Taylor & Dear 1981; Hiel, Cornelis, & Roets, 2007). That is, destructive stereotypes contribute to community members' fears of being harmed by an individual with a mental illness. Fears related to stigmatization of individuals with mental illness result in a perceived threat to self, whether it be physical, emotional, or social, and enforce the prejudicial thinking that community members need to be protected from individuals with mental illness. Research has shown how such

fearful constructs protect discriminating and stigmatizing perspectives (Hiel, Cornelis, & Roets, 2007). For example, if a community member views a person with combat-related PTSD as threatening or dangerous, their desire for personal security will likely far outweigh the desire to reconcile their stigmatizing attitudes. The fear and perceived dangerousness of individuals with mental illness incites the cry for social restrictions, which is correlated to the development of stigmatizing attitudes (Covarrubias & Han, 2011; Taylor & Dear, 1981).

It is interesting to note that an increase in perceived ability to recover from a mental illness has been reported to correlate with decreased levels of stigmatization toward individuals with mental illness (Barczyk, 2015; Hayward & Bright, 1997; Huxley, 1993). For example, individuals with a diagnosis of depression may be less stigmatized than individuals with a diagnosis of schizophrenia. The higher the perceived severity of the mental illness, the more likely it will be perceived that individuals with the mental illness do not have the ability to recover. Thus, the stigma is compounded by lack of public information regarding the diagnosis. This highlights the need to educate the public of the improving prognoses for many mental illnesses. Such information may help to alleviate stigmatizing attitudes. However, research is also needed in order to better understand additional factors contributing to stigmatization in order to inform anti-stigma interventions.

In terms of demographics, age, gender, and level of contact with individuals who have a mental illness correlate with reported levels of stigmatization (Hayward & Bright, 1997). Females tend to hold less stigmatizing views, while age has been shown to have a positive correlation with stigmatizing attitudes (Altemeyer, 1996; Hayward &

Bright, 1997; Taylor & Dear, 1981). Research findings have also indicated that interpersonal relationships with individuals who have mental illness can negate the development of stigmatization (Hayward & Bright, 1997; Negri, & Briante, 2007).

Stigmatization of Mental Health Issues in the Military

The need for mental health services for military members cannot be overstated. Over 930,000 service members between the years 2000 and 2011 were given at least one psychiatric diagnosis, with PTSD diagnoses making up approximately 6% of the total diagnoses (Armed Forces Health Surveillance Center, 2012). In fact, PTSD diagnoses in the military have increased by roughly 650%, from 170 diagnoses per 100,000 military members in 2000, to nearly 1,110 diagnoses per 100,000 military members in 2011 (Blakely & Jansen, 2013). This data points to the need for the eradication of barriers to mental health care. Although the United States military has made strides in creating easier access to mental health services and resources for military members, barriers to care remain a significant concern (Ouimette et al., 2011; Langston et al., 2010).

While some of the hesitation of military members to seek services for PTSD is internal, such as a lack of emotional readiness for treatment, the external stigmatization of seeking mental health services is also a significant contributing factor when considering barriers to care (Stecker, Shiner, Watts, Jones, & Conner, 2013). Social stigmatization is one of the most commonly reported reasons deterring military members from getting the mental health services they need (Osório, Jones, Fertout, & Greenberg, 2013). In addition, Chapman et al. (2014) indicated that military members who screen positive for trauma are more likely than those who screen negative to report

concern that they will be stigmatized for seeking help. Consequently, clearing barriers to care in order to get mental health services to military members who need it most must be prioritized.

As stated previously, Mittal et al. (2013) found that some military members fear that non-military individuals in their communities will see their combat-related PTSD diagnosis as something for which the soldier is to blame. Such a lack of community social support plays a major role in dissuading military members from seeking mental health services. Military members have reported fear of seeming weak or incompetent by those in their support systems, both within the military and non-military communities (Ouimette et al., 2011). This disconnection from social resources can be detrimental to the military member. For instance, Clapp & Beck (2009) indicated a distinct relationship between a weak social support system and the development of PTSD. In fact, individuals who have suffered from trauma have been found to be less likely to develop PTSD if they have high levels of perceived social supports (Clapp & Beck, 2009; Flatten, Wälte, & Perlitz, 2008). This research highlights the importance of understanding stigma as a barrier to care because it will inform anti-stigma interventions that could result in increased social support for military members.

While individuals with combat-related PTSD face consequences from a negatively biased or simply ill-informed social network, studies laud the beneficial influence of a positive and healthy support system. Blais, Renshaw, and Jakupcak (2014) reported that a healthy social support system is a major contributor to military members' recovery from PTSD. Additionally, Interian, Kline, Callahan, and Losonczy (2012) found that social encouragement may be more motivational in encouraging help-

seeking than symptom severity. With such strong indications of the power of social influence, it would be erroneous to ignore the positive role that community members play in the social network of military members. This is especially important given that military members are often integrated into non-military communities throughout their enlistment as well as upon military discharge.

Elements of Mental Health Stigmatization

Important characteristics of stigmatization, as described by Taylor and Dear (1981), are mental health ideology, social restriction, and benevolence. These three elements of stigmatizing views are discussed in multiple studies concerning public attitudes towards people with mental health issues (e.g. Couture and Penn, 2006; Lauber, Nordt, Falcato, & Rössler, 2000; Li, Lin, Guan, & Wu, 2013). Researchers have consistently identified correlations between stigmatizing attitudes and mental health ideology, social restriction, and/or benevolence (Taylor & Dear, 1981). Community member beliefs regarding these elements of stigmatization are especially important for this study because these constructs appear to influence stigmatizing attitudes. A greater depth of understanding of these stigmatization constructs would help guide future development of effective anti-stigma initiatives.

Mental health ideology is the belief that viewing serious mental health diagnoses as medical issues may help reduce inappropriate and destructive stereotypical attitudes (Taylor & Dear, 1981). Mental health education appears to be of singular importance in regard to the development of mental health ideology. Li et al. (2013) reported that educational interventions that allowed participants to better understand stigmatized diagnoses reduced stereotypical assumptions, which resulted in decreased reports of

stigmatizing attitudes. Michael et al. (2014) found that educational interventions regarding mental illness resulted in an increased belief in recovery, reduced levels of prejudice, and led to higher levels of stigma awareness. Similar to exposure to other serious mental health diagnoses, community members' exposure to individuals with combat-related PTSD may be limited to negative stereotypes depicted by media sources. These research findings regarding educational interventions support the idea that educational campaigns may contribute to the reduction of stigmatizing attitudes towards individuals with combat-related PTSD.

Notably, mental health ideology has been shown to have a positive correlation with gender, with females displaying more positive views of mental health than males (Taylor & Dear, 1981). Additionally, Taylor and Dear (1981) indicated that levels of stigmatizing views towards mental illness vary significantly by life cycle, with older adults tending to express more stigmatizing views.

Social restriction is defined as the belief that individuals with serious mental health diagnoses are dangerous people from whom members of the general public require protection (Taylor & Dear, 1981). Couture and Penn (2006) found fear to be a significant factor in stigmatizing attitudes and reported that, in regard to individuals with mental illness, stereotypes that link violence to mental illness are associated with a desire for social restrictions and distance. As previously discussed, similar findings can be seen throughout the research literature concerning mental health stigma (Hayward & Bright, 1997; Hiel, Cornelis, & Roets, 2007; Zartaloudi & Madianos, 2010). Due to public perceptions of the nature of military combat training, fear and perceived

dangerousness may compound stigmatization of individuals with a diagnosis of combat-related PTSD.

According to Lauber, Nordt, Falcato, and Rössler (2000), factors such as age, gender, and education influence the social acceptance of restrictions placed on individuals with mental health diagnoses. Individuals with higher levels of formal education were less likely to endorse the social restriction of individual rights of people diagnosed with a serious mental illness (Lauber et al., 2000). Additionally, increasing age and being male were related to the acceptance of more socially restrictive views toward people with mental illness (Lauber et al., 2000).

Taylor and Dear (1981) define benevolence in the context of mental health stigmatization as “a paternalistic, sympathetic view of patients based on humanistic and religious principles” (pg. 226). Benevolence can manifest in the form of kind and sympathetic attitudes toward individuals with mental illness (Smith & Cashwell, 2010). Such compassionate concern seems to be in direct opposition to traditionally held stigmatizing beliefs, which tend to create emotional distance from those with mental illness. People who know and interact with individuals who have been diagnosed with mental health issues are more likely to hold humanistic and compassionate views towards individuals with mental illness (Couture & Penn 2006). Additionally, Flanagan and Davidson (2009) found that benevolent attitudes correlate negatively to beliefs that individuals with mental illness are likely to be violent, a destructive stereotype that can lead to the stigmatization of those with mental illness. Considering such research regarding benevolence and mental illness stigma, it would be erroneous to ignore the role of benevolence in the stigmatization of individuals with combat-related PTSD

Having some level of contact or acquaintance with individuals with mental illness correlates to higher levels of benevolent attitudes (Pascucci et al., 2016). Research consistently shows that women are more likely to hold benevolent attitudes towards marginalized populations than their male counterparts (e.g. Brockington, Hall, Levings, & Murphy, 1993; Hinkelman, & Granello 2003; Taylor & Dear, 1980). Additionally, younger people tend to hold more benevolent attitudes than their older counterparts and benevolent attitudes tend to be more prevalent in individuals with higher levels of education (Vibha, Saddichha, & Kumar 2008).

Efforts to understand the origins, constructs, and predictors of mental health stigmatization are ongoing. However, as noted above, there does appear to be general consensus that mental health ideology, social restriction, and benevolence influence stigmatizing attitudes. Similar to those with other serious mental health diagnoses, individuals with combat-related PTSD continue to face stigma related to seeking mental health services. The research purporting the influence of mental health ideology, social restriction, and benevolence on stigmatization supports the exploration of the impact these constructs have on stigmatizing attitudes towards individuals with combat-related PTSD.

Just World Perspective

A just world perspective is the belief that individuals get what they deserve in life (Rüsch, Todd, Bodenhausen, & Corrigan, 2010). Through adoption of this belief system, individuals are able to feel safe and in control of their world (Jost, Banaji, & Nosek, 2004). Individuals who ascribe to a just world perspective are more prone to express stigmatizing attitudes and discriminating behavior toward people with mental

illness by placing blame for the mental illness on the person who suffers from the diagnosis (Jost, Banaji, & Nosek, 2004). This permits individuals with a strong just world perspective to emotionally distance themselves from individuals who have mental illness, which will likely restrict opportunities for empathetic interactions and perspectives.

The theory of a just world perspective has been used to explain the stigmatizing behavioral phenomenon of victim blaming (Grub & Turner, 2012). Victim blaming may reflect the real-world operationalization of a just world perspective in that victim blaming reflects yet another method of defense for individuals to distance themselves from marginalized people. Stigma research suggests that the attribution of blame and responsibility to the individuals who face misfortunes positively correlates with just world beliefs (Maes, 1994). Additionally, attributing blame to the victims of misfortune has been shown to have a positive correlation with feelings of invulnerability (Maes, 1994). In other words, individuals who attribute blame to people who face misfortune are likely to think that such misfortunes could never befall them personally. For example, community members may attribute blame and responsibility to military members for their combat-related PTSD diagnosis as a way to protect themselves from the belief that they too might be vulnerable to a similar mental health diagnosis. Such beliefs likely enhance emotional and interpersonal distance, reinforcing stereotypical depictions of marginalized individuals.

Research has found correlations between a just world perspective and authoritarian worldviews, the latter of which is a widely recognized factor in the development and expression of stigmatizing attitudes (e.g. Altemeyer, 1996; Altemeyer,

& Hunsberger, 1992; Connors & Heaven, 1987; Furr, Usui, & Hines-Martin, 2003). Individuals who have high levels of authoritarian beliefs tend to display hostility toward threats of change from conventional beliefs (Furr, Usui, & Hines-Martin, 2003). Fear of deviation from conventional rules suggests a strong need for social control, which aligns well with the just world perspective that social rules and expectations should be followed in order to maintain control in one's world. Research on the authoritarian perspective, however, falls short in providing an explanation for the attribution of blame or responsibility to individuals who face hardships based on their deviation from conventional rules. Perhaps an individual who expects others to adhere to conventional social roles may view a person's deviation from those imposed roles as an acceptable reason to alienate that person. For example, some may believe that because a military member volunteered for a combat role, which could be seen as a deviation from conventional social roles because of the near certainty of exposure to a variety of traumatic events and images, the military member is responsible for their combat-related mental health diagnosis. Additionally, individuals may view military members in a conventional or stereotypical manner, that is, soldiers are expected to maintain physical and psychological toughness. Therefore, when a soldier is diagnosed with combat-related PTSD it may be perceived as psychological weakness and evokes the attribution of blame for the diagnosis. This study explored just world perspectives as a way to enhance the understanding of stigmatization, beyond the limitations of authoritarian perspective, by inspecting the attribution of guilt or responsibility for an individual's misfortunes, in this case, a mental health diagnosis.

Considering the similarities of a just world perspective with previously researched stigmatizing constructs such as authoritarianism, it seems reasonable to expect that just world beliefs might influence the stigmatization of individuals with military specific mental health diagnoses, such as combat-related PTSD. The examination of the adherence to a just world perspective is important because it may help to explain the blame attribution associated with mental illnesses such as combat-related PTSD. In fact, individuals with a just world perspective have been found to be more likely to disparage individuals who face difficult circumstances (Rubin & Peplau, 1975). Thus, a just world perspective may enable non-military community members to distance themselves emotionally, physically, and psychologically from individuals with combat-related PTSD by adherence to the belief that those with the illness must have done something to deserve the diagnosis. This is especially troublesome when considering the vital role that non-military community members often play in the support network of military members.

Rüsch, Todd, Bodenhausen, & Corrigan (2010) addressed the positive impact of initiatives to combat the just world thought process, stating:

> By activating a different worldview (e.g., in a public service announcement) that acknowledges both the role of factors outside an individual's control in shaping their outcomes and the ability of many people to successfully recover from a mental illness, corresponding shifts in attitudes and behavior could be anticipated. To the extent that people are repeatedly exposed to primes of an alternative worldview, that worldview would be expected to gain psychological potency. (p.623)

Therefore, it may be possible to encourage the evolution of an individual's just world belief system through informed interventions and educational initiatives. However, in order to guide the development of such interventions, further understanding of community members' just world perspectives regarding combat-related PTSD is required.

Self-Compassion

Self-compassion is a concept that has been expanding in popularity among psychology researchers as a measure of healthy self-attitudes (Gerber, Tolmacz, & Doron, 2015; Neff, 2003a). There is currently no known research investigating the relationship between self-compassion and stigmatizing attitudes. While research suggests a link between stigmatizing views and constructs such as benevolence (Taylor & Dear, 1981), it falls short in examining how specific elements of an individual's self-perceptions may contribute to their stigmatization of others. Perhaps a compassionate view towards oneself is predictive of benevolence towards others. The exploration of self-compassion in regard to stigma may provide a more thorough conceptualization of how attitudes towards oneself influences one's attitudes towards others, which in turn, may aid in understanding the development of stigmatizing attitudes.

According to Neff (2003a), self-compassion consists of three intertwined constructs:

> (a) self-kindness—extending kindness and understanding to oneself rather than harsh judgment and self-criticism, (b) common humanity—seeing one's experiences as part of the larger human experience rather than seeing them as separating and isolating, and (c) mindfulness—holding one's painful thoughts

and feelings in balanced awareness rather than over-identifying with them. (p. 89)

Thus, self-compassion encompasses the idea of connection to and support for others, constructs that seem to fly in the face of stigmatizing attitudes. In fact, Neff and Pommier (2013) found positive correlations between self-compassion and empathetic concerns for others. Additionally, Yarnell and Neff (2013) suggested that self-compassionate individuals have effective interpersonal skills in that they are more likely to balance their own needs with those of others to resolve conflict in relationships. Perhaps individuals with such empathetic and interpersonal skills are less likely to stigmatize individuals with a mental health diagnosis. Interventions aimed at promoting self-compassion have been show to increase levels of mindfulness, optimism, and self-efficacy (Smeets, Neff, Alberts, & Peters, 2014), which suggests interventions stressing the development of self-compassion among non-military individuals may be effective in decreasing stigmatization of individuals with combat-related PTSD.

While there is a lack of research regarding the relationship between self-compassion and stigmatization, studies have found correlations between self-compassion and constructs that often occur alongside stigma. For example, Homan (2004) found that self-compassion has a negative relationship with aspects of religious fundamentalism, the latter of which is correlated to stigmatizing views towards people with mental illness (Altemeyer, 1996). Additionally, self-compassionate individuals are also less likely to base their self-worth on external validation (Neff & Vonk, 2009). If individuals are able to build and preserve their self-worth without relying heavily on external validation, perhaps they are less likely to rely on stereotypical social

perceptions of others (e.g. fear of individuals with combat-related PTSD) to inform their beliefs.

The three components of self-compassion (i.e., self-kindness, common humanity, and mindfulness) have been found to negatively correlate to automatic thoughts (Akin, 2012). Devine (1989) found that prejudiced responses can originate from automatic thoughts and unintentional thought processes, which highlights the importance of vigilance when processing depictions of marginalized people. For example, if an individual automatically accepts a depiction of a military member with combat-related PTSD that they see in a movie or news report, it may lead to acceptance of stereotypical stigmatizing perceptions of the military population. Akin's (2012) findings suggesting that the core constructs of self-compassion combat automatic thoughts, which have been found to result in prejudiced assumptions (Devine, 1989), support the hypothesis that self-compassion may play a role in predicting stigmatizing attitudes.

Self-compassion is an important component of interpersonal relationships. As Raab (2014) stated, "having compassion for others entails self-compassion" (p. 95). Neff and Beretvas (2013) found that individuals with higher levels of self-compassion displayed more positive relationship behaviors than those with lower levels of self-compassion. Self-compassion has a positive relationship with social connectedness, self-esteem, emotional regulation, and self-control (Morley, 2015), all characteristics that seem to be incongruent with the development of stigmatizing attitudes. Therefore, it seems likely that self-compassionate people are able to develop more authentic and mutually rewarding relationships. The relational aspect of self-compassion is important

to understand because research suggests that stigmatization can be reduced through interpersonal relationships with individuals who have been diagnosed with a mental illness (Negri & Briante, 2007). Additionally, Desforges et al. (1991) reported that interpersonal contact with marginalized individuals, such as those with mental health diagnoses, can be a means of not only reducing negative views, but increasing positive attitudes towards marginalized groups. Perhaps self-compassionate individuals who form interpersonal relationships with individuals who have been diagnosed with mental illness, such as combat-related PTSD, have less stigmatizing perspectives.

Of note, women have been shown to display significantly lower levels of self-compassion than men, perhaps due to the tendency for females to be more self-critical than their male counterparts (Neff, 2003b; Lockard, Hayes, Neff, & Locke, 2014; Yarnell, et al., 2015). However, no significant differences have been reported based on sexual orientation, race/ethnicity, or reported income levels (Lockard, Hayes, Neff, & Locke, 2014). Neff & Vonk (2009) suggested that self-compassion increases as individuals age, perhaps reflecting a maturation and self-acceptance that can accompany age.

Rationale

While there is currently a plethora of research regarding stigmatization and mental health issues, information on stigma specific to military members' combat-related mental health issues is lacking in the current literature (Reavley & Jorm, 2011). Schreiber and McEnany (2015) highlighted the need for increased research addressing stigmatization as a deterrent to military members seeking mental health services. Individuals with combat-related PTSD face a number of barriers to care, both internal

and external, when deciding whether or not to seek mental health services; stigma stemming from a lack of understanding, awareness, and knowledge among non-military community members should not be one of them. Examining individual community members' perceptions and beliefs provides data to guide the development of informed interventions aimed at reducing combat-related PTSD stigmatization as a barrier to mental health care.

In light of the fact that fear of community stigmatization has been a reported barrier to care for military members seeking mental health services (e.g., Hoge, 2008; Mittal et al., 2013), the current study endeavored to provide insight into whether a just world perspective and self-compassion predict community members' stigmatization of individuals with combat-related PTSD. In addition, this study examined victim blaming as a behavioral indicator of just world perspectives in predicting stigma. Such research will provide knowledge to inform future anti-stigma interventions.

Demographics such as age, race, education, gender, and level of interpersonal contact have also been shown to have predictive power in the development of negative views of mental illness (e.g. Conner, Koeske, & Brown, 2009; Holman, 2015; Negri, & Briante, 2007; Solomon, Oppenheimer, Elizur, & Waysman, 1990; Stickney, Yanosky, Black, & Stickney, 2012). However, there is a lack of information related to the level of prediction these demographics may have in regard to military-specific psychiatric diagnoses, such as combat- related PTSD. Thus, these demographics were explored in the current study in order to expand understanding of their impact on this military specific mental health issue.

Research indicates that participants who participate in self-report surveys may answer survey questions in a way that will be viewed favorably by others in order to be seen as a "good person" according to social norms and expectations (Paulhus, 1991). Tourangeau and Yan (2007) found that such social desirability bias can influence participant's responses on sensitive subject matters on survey measures. Corrigan and Shapiro (2010) reported that mental illness stigmatization falls into the category of socially sensitive topics because individuals may not want to voice their true attitudes toward the mentally ill out of fear of harsh criticism. Consequently, the sensitive nature of this research suggests the need to evaluate participants' levels of social desirability in their responses. Therefore, a measure to control for this social desirability effect was included.

Hypotheses

The hypotheses include: (a) relevant demographics variables, victim blaming, just world perspective, and self-compassion as a set of variables will significantly predict stigmatizing attitudes; (b) higher levels of victim blaming and just world perspectives will individually and significantly predict high levels of combat-related PTSD stigmatization; (c) higher levels of self-compassion will individually and significantly predict lower levels of combat-related PTSD stigmatization, and will predict significant variance beyond that predicted by just world perspective.

Chapter 3: Methodology

Participants

255 individuals participated in this research study. Eleven participants (4%) identified themselves as military veterans. The participants ranged in age from 18-71

and the mean age was 34.75 (*SD* 11.69), consisting of 187 (73%) participants who self-identified as female, 66 (26%) as male, and 2 (1%) as nonbinary gendered. Participants consisted primarily of individuals who identified as heterosexual (*n* = 217, 85%), while 10 participants self-identified as gay/lesbian (4%), 21 (8%) self-identified as bisexual, and 7 (3%) self-identified as another orientation.

Participants primarily identified as White/European Descent (*n* = 221, 87%) and 17 participants identified as Multi-racial/Multi-ethnic (7%). The remaining number of participants as Native American (*n* = 5, 2%), Latino/Hispanic (N:5, 2%), Black/African Descent (*n* = 3, 1%). Asian/Pacific Islander (*n* = 2; 1%), and other (*n* = 2, 1%). Nearly half of the participants (*n* = 120, 47%) of the participants reported they were from the Southern United States, with an additional 31.0% of participants (*n* = 79) indicating that they were from the Midwestern United States. The majority of participants (*n* = 101, 40%) reported their household income range was between $35,000-$74,999. Twenty-two percent (*n* = 57) reported their household income range was $18,000-$34,999 and 17% (*n* = 42) reported that their household income was $100,000 and above. The remaining participants reported household incomes less than $17,999 (*n* = 33, 13%) and 21 (8%) participants reported household incomes ranged between $75,000-$99,999.

Participants education levels ranged from less than a high school degree (*N*:4; 1.6%) to Doctoral/Professional degree (*n* = 38; 15%). Most of the participants held either a Bachelor's degree (*n* = 70; 28%) or a Master's degree (*n* = 69, 27%). Participants primarily identified as Christian (*n* = 131; 51%), with the remaining participants identifying as having no religious preference (*n* = 97; 38%), an unspecified religious preference (*n* = 23; 9%), Buddhist (*n* = 3; 1%), or Muslim (*n* = 1; 0.4%).

Of the survey participants, 194 (76%) provided information regarding their proximity to the nearest military base, with the majority of those respondents (*n* = 118, 46%) reporting that they lived within 60 miles of a military base. Forty-four (17%) of participants reported living 61-120 miles from a military base, 21 (8%) of respondents reported living 121-180 miles from a military base, and 11 (4%) of respondents reported living over 180 miles from a military base. The majority of participants (*n* = 227, 89%) indicated that they have had an interpersonal relationship with an individual diagnosed with a mental illness. In addition, 134 (53%) of the participants reported having had an interpersonal relationship with an individual diagnosed with combat-related PTSD.

Measures

Participants were asked to complete a demographic form, an adapted version of the Community Attitudes on Mental Illness Scale (Taylor & Dear, 1981), the Global Belief in a Just World Scale (Lipkus, 1991), the Self-Compassion Scale (Neff, 2003b), The Victim Blaming Vignette (VanDeursen, Pope, & Warner, 2012), and the short form of the Balanced Inventory of Desirable Responding (Hart, Ritchie, Hepper, & Gebauer, 2015). The measures were provided in this stated order, with the exception of the Global Belief in a Just World Scale and the Self-Compassion Scale which were presented in randomized order to avoid a possible priming effect on responses related to measures of socially sensitive stigmatizing attitudes.

Community Attitudes on Mental Illness Scale (CAMI) (Taylor & Dear, 1981). The CAMI is a 40-item scale that was originally designed to measure community members' attitudes towards mental illness in general. With permission from the CAMI's authors, this study utilized an adapted CAMI scale that replaced references to

mental illness with combat-related PTSD. Participants were asked to rate their level of agreement to statements on a 5-point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*).

Taylor and Dear (1981) theorized that community attitudes toward the mentally ill are complex and are best identified through characteristic clusters instead of specific attributes. In accordance with this belief, Taylor and Dear (1981) developed the CAMI scale to consist of four separate and unique subscales including mental health ideology (MHI), social restrictions (SR), benevolence (BEN), and authoritarianism (AUTH). Individual subscale scores are totaled to highlight patterns of stigmatizing views toward individuals with combat-related PTSD. Each subscale is comprised of 10 items with a potential sore range of 10-50. There is no composite CAMI score. Research has consistently shown the CAMI's authoritarian subscale to have internal reliability ranging from Cronbach alphas of .31 to .68 (e.g. Barke, Nyarko, & Klecha, 2011; Hinkelman, & Granello, 2003; Taylor & Dear, 1981). Due to the previous reliability issues and since this research is not seeking to explore authoritarian attitudes, the authoritarian subscale was not utilized in this study.

The MHI subscale is designed to measure participants' perception that combat-related PTSD is a medical condition like any other. This subscale asks participants to rate level of agreement with statements such as "The best therapy for many people with combat-related PTSD is to be part of a normal community" and "Locating combat-related PTSD treatment services in residential neighborhoods does not endanger local residents," with higher scores representing lower levels of combat-related PTSD stigmatization.

The SR subscale is designed to measure participants' views of the perceived dangerousness of individuals with combat-related PTSD. This subscale asks participants to rate level of agreement with statements such as "Individuals with combat-related PTSD should not be given any responsibility" and "Anyone with a history of combat-related PTSD should be excluded from taking public office," with higher scores representing greater levels of combat-related PTSD stigmatization.

The BEN subscale is designed to measure participants' views of individuals with combat-related PTSD based on humanistic and religious principles. This subscale asks participants to rate their level of agreement with statements such as "Individuals with combat-related PTSD have for too long been the subject of ridicule" and "More tax money should be spent on the care and treatment of those with combat-related PTSD," , with higher scores representing lower levels of combat-related PTSD stigmatization.

Taylor and Dear (1981) reported the MHI, SR, and BEN subscales were shown to have Cronbach's alphas of .88, .80, .76, respectively. Analysis from the current study show Cronbach's alphas for the MHI, SR, and BEN subscales to be .85, .69, and .81, respectively. The CAMI's construct validity was established by examining the relationships between the subscales and a variety of personal characteristics, such as socioeconomic status, life cycle state, and personal beliefs and values (Taylor & Dear, 1981), with the strength and consistency of the relationships providing support for the validity of the CAMI scales. The CAMI's construct validity was also established by testing the reproducibility via factor analysis (Taylor & Dear, 1981).

Global Belief in a Just World Scale (GBJWS) (Lipkus, 1991). The GBJWS is a 7-item scale designed to measure just world beliefs (JWB), an individual's general

belief that people get what they deserve in life. Participants are asked to rate their level of agreement to statements on a 6-point Likert scale ranging from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). Statements on the GBJWS include "I feel that people earn the rewards and punishments they get" and "I feel that people who meet with misfortune have brought it on themselves." The GBJWS has a potential score range of 7-42, with higher scores representing stronger beliefs in a just world. Lipkus' (1991) original scale development report stated the GBJWS was shown to have adequate reliability reflected by a Cronbach's alpha of .83. Similarly, Hellman, Muilenburg-Trevino, and Worley (2008), reported that the GBJWS showed the highest reliability (i.e., $\alpha = .81$) among a number of assessments aimed at measuring just world perspectives. Analysis from the current study show a .86 Cronbach's alpha for the GBJWS. Construct validity has been supported by significant positive correlations between the GBJWS, trust, and internal loci of control (Lipkus, 1991).

Self-Compassion Scale (SCS) (Neff, 2003b). The SCS is a 26-item questionnaire that measures self-compassion by assessing six constructs; Self-Kindness, Self-Judgement, Common Humanity, Isolation, Mindfulness, and Over-Identification. The author states that the six constructs can be interpreted individually or can be combined for a total self-compassion score. For the purpose of this study, the total self-compassion score was employed in order to best address the research question. The SCS asks participants to rate the level of agreement with statements such as "I'm disapproving and judgmental about my own flaws and inadequacies (reverse scored item)" and "I'm kind to myself when I'm experiencing suffering" utilizing a 5-point

Likert scale ranging from 1 (*Almost Never)* to 5 (*Almost Always*). Scores range from 1-26, with higher scores indicating higher levels of self-compassion.

According to Neff (2003b), the SCS has shown adequate internal consistency (α=.86). The current study found a .94 Cronbach's alpha for the SCS. The construct validity for the SCS has been established by examining correlations with several similar constructs including self-criticism, social connectedness, and mood scales (Neff, 2003b). During the current research, one item of the SCS was inadvertently omitted for 204 of the study participants. However, subsequent analyses found no significant difference in scale reliability between participants who were able to respond to the missing item and those who were not.

The Victim Blaming Vignette (VB) (VanDeursen, Pope, & Warner 2012). The victim blaming vignette utilized in this research consisted of a scenario presenting a woman being mugged while walking to her car late at night. Participants were asked to rate their level of blame attribution by responding to the question "To what extent do you think that Ms. Brown's behavior is to blame for the fact that she was mugged?" Participants are asked to rate their response on a scale of 1 (*Not at all*) to 7 (*Very much*). In the original research, VanDeursen, Pope, and Warner (2012), asked two total questions in order to assess for attribution of responsibility and attribution of blame. The 2 original response items had adequate concurrent reliability (r = 0.86) as well as adequate internal consistency (α = .80). For the purpose of this research study, the researchers utilized the singular question of attribution of blame.

Balanced Inventory of Desirable Responding Short Form (BIDR-16) (Hart, Ritchie, Hepper, & Gebauer, 2015; Paulhus, 1991). The original BIDR is a forty-item

measure used to assess for two aspects of social desirability. The first measured construct is the participant's self-deceptive positivity (SD), which reflects the participant's tendency to give honest but positively biased self-reports (Paulhus, 1991). The second measured construct is the participant's impression management (IM), which reflects the participant's attempt to be deliberate in self-presentation to others (Paulhus, 1991). The BIDR is also able to be calculated as a combined overall score that has shown adequate concurrent validity (r =.80) with the Multidimensional Social Desirability Inventory (Jacobson, Kellogg, Cauce, and Slavin, 1977). According to Paulhus (1991), the original BIDR has adequate overall reliability (α= .83), as well as adequate reliability for the SDE scale (α ranging from .68 to .80), and IM construct scale (α ranging from.75 to .86).

This study utilized the 16-item version of the measure, known as the BIDR-16, which was shown be significantly correlated with the original, forty-item BIDR (Hart et al., 2015). The shortened form was chosen in order to limit the number of survey items while still maintaining reliability. The BIDR-16 asks participants if they agree with statements such as "I sometimes lose out on things because I can't make up my mind soon enough" and "There have been occasions when I have taken advantage of someone." Using a 6-point Likert scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). BIDR-16 scores can range from 16 to 112, with higher scores indicating that participants are responding in a way that is socially desirable, reflecting less than honest or positively biased responses (Hart et al, 2015). Test-retest reliability for the BIDR-16 after 2 weeks was .79 for the SDE and .74 for the IM (Hart et al., 2015). The construct validity of the SDE scale was established by significant

correlations with emotional stability, conscientiousness, openness, extraversion, and agreeableness (Hart et al., 2015). The construct validity of the IM scale for the BIDR-16 was established by significant correlations to agreeableness, emotional stability and conscientiousness (Hart et al., 2015). The current study found a .73 Cronbach's alpha for the BIDR-16.

Procedures

After receiving study approval from the University of Oklahoma's Institutional Review Board (IRB), this study utilized snowball sampling methods via social media (i.e. Facebook, Twitter) to recruit study participants. Participants were provided a link to the anonymous online study survey. The link directed participants to the informed consent page, which summarized the study and required consent to continue. At the end of the survey, participants were provided the option to submit their email address, completely separate and unaffiliated with their survey responses, in order to be added to a random drawing for one of ten twenty-dollar Amazon.com gift cards. Participants were able to complete the survey at the time and location of their choosing.

This study utilized Qualtrics software to develop the online survey, which was housed on the Center for Educational Development and Research (CeDar) secure server. No identifying information was collected through the survey. The researchers were the only ones with access to the survey data.

A general community sample was recruited. Based on a G*Power analysis accounting for the four predictor variables (demographics, victim blaming, just world beliefs, and self-compassion) and three criterion variables (mental health ideology,

social restriction, and benevolence), it was determined a minimum of 153 participants were required in order to obtain adequate power and effect size.

Data Analysis

Multiple regression analyses were utilized for this study in order to explore the predictive power of unique predictor variables (just world beliefs and self-compassion) on the three criterion variables (mental health ideology, social restriction, and benevolence) above and beyond relevant demographic variables. Three separate hierarchical multiple regressions were conducted, one for each of the criterion variables. For each regression model, JWB scores (as measured by the Global Belief in a Just World Scale) and SCS scores were predictors. For the SR and BEN regression models, victim blaming scores were also entered as an additional predictor due to significant correlations between victim blaming and these two criterion variables.

Demographic variables that were found to have statistically significant correlations to each criterion variables were added at the first step. Victim blaming was added in the next step of the SR and BEN models only to control for its effect. Based on previous research which cites a correlation between just world beliefs and stigmatizing attitudes (e.g. Khera, Harvey, & Callan, 2014; Rüsch, Todd, Bodenhausen, & Corrigan, 2010), just world belief scores were entered in the next step in order to explore and control for the effects of this variable. The final step entered self-compassion in order to explore the relevance of this self-perception through investigating any unique variance accounted for above and beyond just world perspectives.

Social desirability, as measured by the BIDR, was not found to significantly correlate with any of the three criterion variable subscale scores or with JWB. Although it had a medium correlation with the SCS (r= -.35, p<.01), it was not included in the final regression model due to the lack of predictive significance of self-compassion (see regression models).

Chapter 4: Results

Preliminary Analyses

The preliminary analyses explored relationships among the demographics, predictor, and criterion variables. Means, standard deviations, and intercorrelations for all measured variables are presented in Table 1. Continuous variables were evaluated through bivariate correlations and data from categorical demographic variables were analyzed using t-tests and ANOVA's. Relevant demographics that produced statistically significant correlations were controlled for in primary analyses. Analysis found no instances of multicollinearity between the predictors, although correlation results revealed small but statistically significant relationships between just world beliefs and victim blaming ($r = .16$, $p < .05$).

A series of ANOVA's were run to explore the significance of categorical demographic variables (i.e., religion preference, ethnicity, sexual orientation, gender, and geographical regions) with criterion variables. None were found to be significantly correlated. An independent t-test found no significant difference between scores of veterans and non-veterans on the CAMI's MHI, SR, or BEN subscales.

The CAMI's MHI subscale showed significant and positive correlations to level of contact with an individual who has been diagnosed with a mental illness ($r = .13$, p <

.05), level of contact with an individual who has been diagnosed with combat-related PTSD ($r = .21$, $p < .01$), and level of education ($r = .14$, $p < .05$). Thus, level of contact with an individual diagnosed with a mental illness, level of contact with an individual diagnosed with combat-related PTSD, and level of education were included as predictors in the MHI regression model. The MHI subscale was also shown to be significantly and negatively correlated to just world beliefs ($r = -.18$, $p < .01$), but not self-compassion or victim blaming.

The CAMI's SR subscale was significantly and negatively correlated to level of contact with individuals who have been diagnosed with combat-related PTSD ($r = -.22$, $p < .01$) and level of education ($r = -.19$, $p < .01$). Therefore, level of contact with individuals with combat-related PTSD, level of education, and attribution of blame were included as predictors in the SR regression model. In addition, the SR subscale scores showed significant and positive correlations to just world beliefs ($r = .18$, $p < .01$) and victim blaming ($r = .25$, $p < .01$), but not self-compassion.

Last, the CAMI's BEN subscale showed significant and positive correlations to level of contact with individuals who have been diagnosed with combat-related PTSD ($r = .29$, $p < .01$) and level of education ($r = .26$, $p < .01$). Therefore, contact with individuals who have been diagnosed with combat-related PTSD, level of education, and attribution of blame were included as predictors in the BEN regression model. Also, the BEN subscale scores were significantly and negatively correlated to just world beliefs ($r = -.17$ $p < .01$) and victim blaming ($r = -.19$, $p < .05$), but not self-compassion.

Primary Analyses

Three hierarchical multiple regressions were performed to evaluate whether the predictor variables were related to the criterion variables (i.e., MHI, SR, and BEN subscale scores) as previously described. Refer to Tables 2, 3, and 4 for the results of the regression models.

MHI Regression Model. The R^2 explained by the full model was 9%, indicating a small to medium effect size (adjusted $R^2 = .07$, F (5, 247) = 4.83, $p < .01$). As shown in Table 2, level of contact with an individual who has a been diagnosed with a mental illness, level of contact with an individual diagnosed with combat-related PTSD, and level of education were entered in Step 1 of the hierarchical regression model and the set of variables accounted for 6% of the variance in MHI scores (F change (3, 249) = 5.32, $p < .01$). JWB was entered in Step 2 and explained an additional 3% of the variance in MHI scores after controlling for education and the level of contact variables (F change (4, 248) = 8.06, $p < .01$). Finally, self-compassion was entered in Step 3 of the model and self-compassion scores explained no additional variance in mental health ideology scores. In the final model, only the level of contact with individuals diagnosed with PTSD ($\beta = .17$, $p < .01$) and just world beliefs ($\beta = -.17$, $p < .01$) made statistically significant individual contributions to the model (see Table 2). This regression model utilized listwise deletion, which removes all data from cases that are missing one or more values.

SR Regression Model. The R^2 explained by the full model was 14%, indicating a medium effect size (adjusted $R^2 = .11$, F (5, 154) = 5.14, $p < .01$). As shown in Table 3, level of contact with an individual who has been diagnosed with combat-related

PTSD and level of education were entered in Step 1 of the hierarchical regression model and accounted for 7% of the variance in SR scores (*F* change (2, 157) = 5.57, $p < .01$). Victim blaming was entered in Step 2 and explained an additional 6% of the variance in SR scores after controlling for education and the level of contact to an individual who has a diagnosis of combat-related PTSD (*F* change (3, 156) = 10.33, $p < .01$). JWB was entered in Step 3 and explained an additional but non-significant 2% of the variance in SR scores after controlling for education, level of contact, and victim blaming. Finally, self-compassion was entered in Step 4 of the model and self-compassion scores explained no additional variance in SR scores. In the final model, only level of interpersonal contact with an individual with combat-related PTSD ($\beta = -.18$, $p < .05$) and victim blaming ($\beta = .22$, $p < .01$) made statistically significant contributions to the model (see Table 3). This regression model utilized pairwise deletion, which excluded variables with missing values while still utilizing the remaining variables that did not have missing values (please refer to the Supplementary Analyses section for explanation).

BEN Regression Model. The R^2 explained by the full model was 17%, indicating a medium effect size (adjusted $R^2 = .14$, F (5, 154) = 6.23, $p < .01$). As shown in Table 4, level of contact with an individual who has been diagnosed with combat-related PTSD and level of education were entered in Step 1 of the hierarchical regression model and accounted for 12% of the variance in BEN scores (*F* change (2, 157) = 10.63, $p < .01$). Victim blaming was entered in Step 2 and explained an additional 3% variance in BEN scores after controlling for education and the level of contact (*F* change (3, 156) = 5.40, $p < .05$). JWB was entered in Step 3 and explained

an additional but non-significant 2% variance in BEN scores after controlling for education, level of contact, and victim blaming. Finally, self-compassion was entered in Step 4 of the model and self-compassion scores explained no additional variance in BEN scores. In the final model, only the level of interpersonal contact with individuals diagnosed with PTSD ($\beta = .23$, $p < .01$), education level ($\beta = .21$, $p < .01$), and victim blaming ($\beta = -.16$, $p < .05$) made statistically significant individual contributions to the model. This regression model utilized pairwise deletion, which allowed excluded variables with missing values while still utilizing the remaining variables that did not have missing values (please refer to the Supplementary Analyses section for explanation).

Supplementary Analysis

Due to a limited number of participant responses to the victim blaming item (n = 161, 63.1%; see Limitations for discussion), which was shown to have a significant correlation to the BEN and SR subscales and was therefore controlled for in the primary BEN and SR regression models, researchers performed supplementary regression analyses to further explore the data. This round of supplementary analysis utilized listwise deletion, which removes all data from cases that are missing one or more values. Thus, these models utilized data only from those participants who responded to the victim blaming item. Independent sample T-tests were utilized and found no significant differences in BEN or SR scores between participants who responded and those that failed to respond to the victim blaming measure.

Supplementary SR Regression. The R^2 explained by the full model was 20%, indicating a medium to large effect size (adjusted $R^2 = .18$, F (5, 153) = 7.82, $p < .01$).

As shown in Table 3b, level of contact with an individual who has been diagnosed with combat-related PTSD and level of education were entered in Step 1 of the hierarchical regression model and accounted for 11% of the variance in SR scores (*F* change (2, 156) = 9.54, $p < .01$). Victim blaming was entered in Step 2 and explained an additional 5% of the variance in SR scores after controlling for education and the level of contact (*F* change (3, 155) = 9.85, $p < .01$). JWB was entered in Step 3 and explained an additional 4% of the variance in SR scores after controlling for level of contact, education, and victim blaming (*F* change (4, 154) = 7.91, $p < .01$). Finally, self-compassion was entered in Step 4 of the model and self-compassion scores explained no variance in SR scores. In this final model, level of interpersonal contact with an individual with combat-related PTSD ($\beta = -.19$, $p < .05$), education level ($\beta = -.17$, $p < .05$), victim blaming ($\beta = .20$, $p < .01$), and JWB ($\beta = .21$, $p < .01$) made statistically significant individual contributions to the model (see Table 3b).

Supplementary BEN Regression. The R^2 explained by the full model was 20%, indicating a medium to large effect size (adjusted $R^2 = .17$, F (5, 153) = 7.45, $p < .01$). As shown in Table 4b, level of contact with an individual who has been diagnosed with combat-related PTSD and level of education were entered in Step 1 of the hierarchical regression model and accounted for 15% of the variance in BEN scores (*F* change (2, 156) = 14.04, $p < .01$). Victim blaming was entered in Step 2 and explained an additional but non-significant 2% of the variance in BEN scores after controlling for level of contact and education level. JWB was entered in Step 3 and explained an additional 2% variance in BEN scores after controlling for level of contact, education, and victim blaming (*F* change (4, 154) = 4.32, $p < .05$). Finally, self-compassion was

entered in Step 4 of the model and self-compassion scores explained no additional variance in BEN scores. In the final model, level of interpersonal contact with individuals diagnosed with combat-related PTSD ($\beta = .23$, $p < .01$), education level ($\beta = .21$, $p < .01$), and just world beliefs ($\beta = -.16$, $p < .05$) made statistically significant individual contributions to the model (see Table 4b).

Chapter 5: Discussion

This study sought to provide information on non-military community members' stigmatization of combat-related PTSD that is absent in current literature. Research on the impact of stigmatization on individuals with mental health diagnoses is abundant. However, it is vitally important to continue building the knowledge base regarding stigmatizing attitudes that may deter military members who are considering seeking mental health services in order to address this barrier to care. This study examined the correlation and predictive role that just world beliefs, victim blaming, and self-compassion, previously unstudied constructs of military-related mental health stigmatization, play in access to care for individuals with combat-related PTSD.

Findings and Integration of Current Literature

The findings of this study supported the first hypothesis, which predicted that relevant demographic variables, just world perspective, victim blaming, and self-compassion as a set of variables, would significantly predict stigmatizing attitudes.

The second hypothesis, which predicted higher levels of victim blaming and just world perspectives would individually and significantly predict high levels of combat-related PTSD stigmatization, was partially supported by the results of this study. In the both the primary and supplementary analyses, higher levels of victim blaming were

found to predict higher levels of social restriction. Higher levels of victim blaming were shown to predict lower levels of benevolence in the primary regression model, but did not show significant predictive power in the supplementary analysis. Higher levels of just world beliefs were found to significantly predict higher levels of social restriction, lower levels of mental health ideology, and, in the supplementary analysis, lower levels of benevolence. In interpreting these results, the scoring direction of the stigmatization scales must be kept in mind: (a) higher mental health ideology and benevolence scores indicate lower levels of stigmatization, but (b) higher social restriction scores indicate higher levels of stigmatization.

Findings from this study did not support the third hypothesis, which predicted that higher levels of self-compassion would individually and significantly predict lower levels of combat-related PTSD stigmatization, and would predict significant variance beyond that predicted by just world beliefs.

Notes on Just World Beliefs and Victim Blaming. Just world beliefs were shown to account for a statistically significant amount of variance in mental health ideology in the primary analyses, as well as social restriction and benevolence in the supplementary analyses. Specifically, the primary regression analysis for MHI indicated that higher levels of adherence to just world beliefs predicted lower mental health ideology (i.e., lower stigmatization based on the view of combat-related PTSD as a medical illness). The supplementary analyses, based on the smaller sample size of those who responded to the victim blaming item, found that just world beliefs predicted lower benevolence scores (i.e., lower stigmatization based on humanistic beliefs). Additionally, the supplementary analyses, based on the smaller sample size of those

who responded to the victim blaming item, found that just world beliefs predicted higher social restrictiveness scores (i.e., higher stigmatization based on perceived dangerousness). These findings align with previous research that reported a significant positive correlation between adherence to just world beliefs and the stigmatization of individuals, such as those with mental illness, who have historically been marginalized by society (e.g. Jost, Banaji, & Nosek, 2004; Rubin, & Peplau, 1975).

Of note, there were different findings regarding the significance of just world beliefs between the primary and supplementary analyses. Initially, pairwise deletion was used for the regression analysis, allowing for exclusion of variables with missing values while still utilizing the remaining variables that did not have missing values. In other words, pairwise deletion allowed for the utilization of all portions of the response set that these participants completed, even if they did not respond to the victim blaming question. In these primary analysis models, just world beliefs were not shown to account for a significant amount of the variance. However, in pairwise deletion, the computed statistics may be based on differing subsets of data. For that reason, especially considering the amount of victim-blaming missing data, it is arguably more valid to interpret the listwise benevolence and social restriction regression analyses (Tables 3b & 4b), where the victim blaming values are present for all participants, even considering the decrease in sample size (i.e., 159 total response set). Thus, for the social restriction and benevolence models, the listwise analyses will be the focus of discussion.

The results of the supplementary listwise regression show that victim blaming and just world beliefs were each predictive in the social restriction regression model and

were shown to have significant and nearly equivalent importance in the model as evidenced by similar beta weights. This may indicate that the social restriction subscale focuses on a perception of dangerousness bias, thus aligns with the cognitively-oriented victim blaming measure. In contrast, when examining the benevolence regression model, victim blaming did not hold any predictive power, although just world beliefs was predictive. The just world belief items may be more trait-based (as compared to the cognitive nature of victim-blaming), thus more in line with the benevolence scale, specifically the humanistic aspect of perception. Taylor and Dear (1981) defined social restriction as a belief and defined benevolence as a frame of mind, a psychological trait. This appears to be congruent with the results of this study. That is, social restriction may reflect beliefs about other people based on their perceived dangerousness, thus it is not hard to see that it may be predicted by attribution of blame, as well as by just world belief perceptions. Consequently, the relatively equal predictive power of social restriction based on just world beliefs and victim blaming scores is not surprising. Likewise, if benevolence is a psychological trait (Taylor & Dear 1981), it makes sense that victim blaming may not predict benevolence; adherence to just world beliefs may better align with the trait-based framework of benevolence. These findings reflect the complexity in stigma research in that the two constructs, just world belief and victim blaming, appear to function on different aspects of these two stigmatizing attitudes (i.e., social restriction, benevolence).

Notes on Self-Compassion. This study found no significant correlation or predictive power between self-compassion and any of the criterion stigma subscales. While unexpected, by exploring self-compassion researchers examined a facet of

stigmatization that was previously unexplored and added to the knowledge base regarding self-compassion and stigmatization of others. Self-compassion is a multifaceted construct, thus may be too broad. Future research may add to the understanding of how self-perceptions are correlated to constructs of stigmatization by further operationalizing self-perceptions beyond the broader construct of self-compassion. For instance, perhaps narrowing the scope of self-perceptions and considering constructs such as self-awareness or self-worth would be more conducive to stigma research. Evaluating self-awareness may highlight the presence of participants' insight/introspection, which may counter unexamined automatic thoughts that can lead to stigmatization (Devine, 1989). Similarly, assessing for self-worth could promote understanding of how assessment of self-worth influences the attribution of the worth of others. Needless to say, continued efforts to understand how views of self impact views of others will allow stigma research to continue to inform interventions that decrease stigmatization among its perpetrators.

Individual Regression Models

Mental Health Ideology Regression Model. The primary regression analysis for mental health ideology indicated that higher levels of just world beliefs predicted lower levels of viewing of combat-related PTSD as a medical illness. If an individual believes that those who live with combat-related PTSD got what they deserved in life, this attitude would clearly enhance stigma towards individuals with that diagnosis. If community members view combat-related PTSD as something that that military member deserve due to their enlistment, it is easy to see how community members may feel less susceptible to experiencing a similar diagnosis. This finding aligns with

previous research findings regarding the invulnerability that often accompanies just world beliefs (Maes, 1994). In contrast, individuals who are able to see combat-related PTSD as a medical issue like any other would be less likely to have stigmatizing attitudes. If viewing combat-related PTSD as a medical issue, perhaps there is a stronger belief that the symptoms of the diagnosis can be managed, which has been shown to correlate to decreased fear and therefore decreased stigmatization (Barczyk, 2015; Hayward & Bright, 1997; Huxley, 1993).

Specific demographics, namely interpersonal contact with an individual who has combat-related PTSD and level of education significantly predicted less stigma due to a view of combat-related PTSD as a medical illness. In other words, individuals who have had an interpersonal relationship with someone who has been diagnosed with combat-related PTSD have less stigmatizing attitudes. This finding align with previous research that emphasizes the powerful role of interpersonal contact in combating stigmatization (e.g. Hayward & Bright, 1997; Pascucci et al., 2016). Interacting with an individual who has a combat-related PTSD diagnosis likely facilitates interpersonal connection that enhances understanding and contradicts the fear and misinformation that accompanies stigmatization. In addition, similar to previous research (Lauber, Nordt, Falcato, and Rössler, 2000), those who reported higher levels of formal education tended to endorse less stigma due to increased views of combat-related PTSD as a medical illness. Perhaps this is reflective of the impact of diverse and belief-challenging experiences and interactions that often accompany higher levels of formal education. Through exposure to novel ideas and the enhancement of critical thinking skills, individuals who are afforded the opportunity to continue their formal education

may be more equipped to conceptualize combat-related PTSD as a medical issue and disregard the fear that can accompany stereotypes and misinformation.

Social Restriction Regression Models. The listwise social restriction model (which as noted previously is the focus of interpretation), found that higher levels of just world beliefs and victim blaming were individually and significantly predictive. This was discussed in some detail previously. Noting that social restriction, in the context of this study, is the belief that the general public needs protection from individuals with combat-related PTSD, the role victim blaming and just world beliefs play in predicting social restriction is not surprising. High attendance to the attribution of blame and belief that an individual with combat-related PTSD got what they deserved is an ideal method to create emotional distance, which likely interferes with humanistic and compassionate attitudes that have been show to decrease stigmatization (Couture & Penn 2006). Simply put, it may feel safer for non-military individuals to explain this mental health issue as a consequence of military enlistment, which aligns with previous research that found that blaming the victim of misfortune was positively correlated with feelings of invulnerability (Maes, 1994).

In addition, the listwise analysis showed that interpersonal contact with an individual who has combat-related PTSD and level of education significantly predicted social restriction. Specifically, individuals who have had an interpersonal relationship with someone diagnosed with combat-related PTSD endorse less social restrictive stigmatizing attitudes, which aligns with previous research findings that indicated interpersonal contact with individuals who have a mental illness negated stigmatizing attitudes (Hayward & Bright, 1997; Pascucci et al., 2016). The impact of interpersonal

interaction cannot be diminished. It is easy to see how interacting with a military member who has combat-related PTSD would allow community members to experience a genuine interaction and correct fear-based assumptions that may have been fostered by misinformation. Additionally, similar to previous research (Lauber et al., 2000), participants who reported higher levels of formal education reported less restrictive and stigmatizing attitudes. As stated previously, this is likely due to the increase in belief-challenging experiences that often accompany higher levels of formal education. Perhaps the adherence to fear based stereotypes and misconceptions can be combatted by the increase in exposure to information and diverse perspectives indicative of higher levels of education,

Benevolence Regression Models. The pairwise benevolence model found that higher levels of victim blaming significantly predicted lower stigmatization based on humanistic beliefs. The supplementary listwise analysis, arguably the more valid model (see previous discussion), however, found that higher levels of just world beliefs predicted lower benevolence scores. Again, the significance and predictive power of just world beliefs is not surprising. As previously stated, benevolence has been proposed to be trait-based (Taylor & Dear, 1981) and has been found to include kind, sympathetic, and compassionate views towards others (Smith & Cashwell, 2010). It seems logical that it would be difficult to reconcile such a mindset to include a belief that individuals with combat-related PTSD got what they deserved.

Interpersonal contact with an individual who has combat-related PTSD and level of education significantly predicted benevolence, also. In other words, individuals who have had an interpersonal relationship with someone with combat-related PTSD have

less stigmatizing and more benevolent attitudes, which aligns with previous research findings (Pascucci et al., 2016). Again, the power of human connection in regard to combating stigmatizing attitudes cannot be understated. It is not difficult to see how a mindset that incorporates kindness and compassion towards others is developed and nurtured by interpersonal connection. Additionally, similar to previous research (e.g, Lauber, Nordt, Falcato, and Rössler, 2000; Vibha, Saddichha, & Kumar 2008), participants who reported higher levels of formal education reported more benevolent and less stigmatizing attitudes. By being exposed to different perspectives and novel interpretations of human behaviors and interactions, perhaps individuals with higher levels of former education are better able to attribute traits of kindness, compassion, and sympathy to individuals with combat-related PTSD, thereby decreasing levels of stigmatizing attitudes.

Implications

The results of this study have implications for planning and implementation of anti-stigma campaigns aimed at non-military community members. Noting the positive impact that interpersonal contact with individuals who have been diagnosed with combat-related PTSD have on negating stigmatizing attitudes toward individuals with combat-related PTSD may be essential to the development of anti-stigma campaigns. Based on the results of this study, incorporating an aspect of interpersonal connection to an individual who has combat-related PTSD via community psychoeducation initiatives would likely be a valuable anti-stigma intervention. For example, inviting military members who have been diagnosed with combat-related PTSD to speak at community centers, churches, or schools regarding their experience and their perception of barriers

to care would increase community members' knowledge regarding combat-related stigmatization and allow a more personal connection with an individual with the diagnosis.

Acknowledging the influence of non-veteran community members' adherence to a just world perspective on stigmatization of individuals with combat-related PTSD will allow for more effective educational intervention development. In fact, previous research found that educational initiatives were effective in combating just world beliefs (Rüsch, Todd, Bodenhausen, & Corrigan 2010). Such education initiatives could be developed and presented as education courses, community meetings, or even psychoeducational groups. For example, individuals with combat-related PTSD or even people with close interpersonal associations with individuals who have combat-related PTSD (e.g., family members, psychologists, social workers), could present community members with realistic and factual information about the origins, prognosis, and everyday lives of those living with combat-related PTSD. Such interventions would likely go a long way in equipping non-military community members with the information and interpersonal connection that can alleviate stigmatizing attitudes based on just world beliefs. Equipping community members with information regarding specific aspects of a combat-related PTSD diagnosis would aid in challenging the misconceptions, fear, and attribution of blame that can lead to stigmatizing attitudes (Kitchener & Jorm, 2006). This could be done via public service announcements, community meetings led by military members and mental health professionals, presentations at schools and churches, and even interactive social media tools. By integrating tools such as these that are based on the findings of this study, educators can

create a more effective method of addressing the roots of stigmatization towards individuals with combat-related PTSD.

Developing initiatives that address just world beliefs as they pertain to stigmatization of combat-related PTSD, encouraging interpersonal contact with individuals who live with combat-related PTSD, and providing psychoeducational opportunities for community members to replace fear and blame with knowledge and understanding are a few of the ways in which educators may utilize the findings of this study to address the stigmatization of individuals with combat-related PTSD.

Limitations

One limitation of this study accompanies any anonymous online survey. While the anonymity of participants was utilized to cultivate a sense of safety for participants to respond honestly to the survey questions, it also limits the ability to ensure participants responses are complete. As discussed in the previous sections, a significant number of participants did not respond to the attribution of blame questionnaire. This may be due to the format in which the item was posed to participants. Future researchers should review the format of the item to help ensure that the directions and response options are clear. In addition, future research may utilize qualitative interviews, which would allow for follow up to participant responses to cultivate increased understanding of community member perspectives.

Another limitation of this research can be found in the limited diversity of the sample. The results of this study cannot be generalized to the whole non-military community population due to the underrepresentation of marginalized/minority groups within the participant pool. While this study utilized online social media and snowball

sampling to increase individual access to the survey, the demographic diversity of the sample was comprised of mostly individuals who were White (88%), heterosexual (85%), female (73%), relatively well-educated, and from the midwest and southern United States (78%). These restricted demographics likely limited the range of responses and cannot be seen as a comprehensive representation of community members. Future research should make efforts to expand the pool of participants in order to enhance the diversity of the participants and attain a more complete understanding of non-military community member attitudes towards individuals with such military specific mental health diagnoses.

Additionally, this research found small to medium effect sizes in regard to independent predictors of stigmatization. Continued research is vital to the improving the understanding of constructs that predict stigmatizing attitudes. It is also of note that, although the Victim Blaming Vignette proved troublesome in regards to garnering participant responses, it highlighted the potentially significant level of predictive power that victim blaming may on cultivating stigmatization. Continued research to develop a more robust victim blaming measure would be beneficial to future stigma research. Finally, as with any correlational research, the results of this study should not be interpreted or assumed to be causal in nature.

Conclusion

Research has consistently highlighted the need to address barriers to mental health care that plague military members (e.g., Corrigan, 2000; Hoge, 2008; Ouimette et al., 2011; Langston et al., 2010). This study explored non-military community attitudes towards individuals with combat-related PTSD, a barrier to care that has been neglected

in research thus far, and identified patterns of combat-related PTSD stigmatization. While previous research has found correlations between just world perspectives and constructs associated with stigmatization (e.g. Altemeyer, 1996; Altemeyer, & Hunsberger, 1992; Connors, & Heaven, 1987; Furr, Usui, & Hines-Martin, 2003; Jost, Banaji, & Nosek, 2004), the current study was able to further the knowledge regarding patterns and predictors of non-military community members' stigmatization of combat-related PTSD, a signature mental health diagnosis among military members.

Research must continue to explore the barriers of care among military members, especially in regards to vitally needed mental health services. The information presented in this study examines just the tip of the iceberg regarding stigmatization as a barrier to mental health care for individuals with combat-related PTSD. However, by exploring such barriers, researchers can lead the charge to shine a light on this population of individuals who experience mental health issues as a result of their military services. Future research may utilize qualitative methods in order to gain a more in-depth understanding of the experiences and perspectives of community members that may have led to stigmatizing attitudes. Continued research efforts focusing on anti-stigma program development and implementation that incorporate the findings of this study would provide a vital service not only to the military members who live with combat-related PTSD, but also to community members who may be searching for ways to better understand and support military members in their community. For example, developing community-based initiatives that provide psychoeducation regarding combat-related PTSD and promoting interpersonal connection between community members and individuals with combat-related PTSD

would likely make significant strides in decreasing the stigmatization of combat-related PTSD. Continued research will no doubt cultivate the insight needed to develop interventions that will lessen or even eliminate the social stigma that military members experience when considering whether or not to seek mental health services.

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Appendix A: List of Tables

Table 1

Descriptors and Intercorrelations Among Variables of Interest

Variable	*N*	M	*SD*	α	1	2	3	4	5	6	7	8	9
1. MHI	255	40.76	5.30	.85	-	-.65**	.56**	-.18**	-.01	-.15	.13*	.21**	.14*
2. SR	255	17.82	3.96	.69	-.65**	-	-.50**	.18**	.00	.25**	-.07	-.22**	-.19**
3. BEN	255	43.86	4.81	.81	.56**	-.50**	-	-.17**	-.01	-.19*	.10	.29**	.26**
4. JWB	255	20.85	6.30	.86	-.18**	.18**	-.17**	-	.14*	.16*	-.04	-.03	-.05
5. SC	255	15.93	3.40	.94	-.01	.00	-.01	.14*	-	-.05	-.16*	.10	.18**
6. VB	161	1.29	.89	-	-.15	.25**	-.19*	.16*	-.05	-	-.01	-.04	-.03
7. CMI	254	.89	.31	-	.13*	-.07	.10	-.04	-.16*	-.01	-	.21**	.08
8. CPTSD	254	.53	.50	-	.21**	-.22**	.29**	-.03	.10	-.04	.21**	-	.25**
9. EDU	254	3.96	1.52	-	.14*	-.19**	.26**	-.05	.18**	-.03	.08	.25**	-

Note: MHI=Mental Health Ideology (higher MHI scores indicate lower PTSD stigmatization); SR= Social Restriction (higher SR scores indicate higher PTSD stigmatization); BEN=Benevolence (higher BEN scores indicate lower PTSD stigmatization); JWB= Just World Beliefs; SC=Self-compassion; VB= Victim Blaming; CMI=Contact with an individual with a mental illness; CPTSD=Contact with an individual with combat-related PTSD; EDU= Education. * $p < .05$ (2-tailed). ** $p < .01$ (2-tailed).

Table 2

Summary Step of Hierarchical Multiple Regression Analysis for Mental Health Ideology Subscale- Listwise (N=253)

Variable	Step Entered	R^2	Adj.R^2	ΔR^2	*F* Change	*df*	*B*	*SE B*	β
Contact to mental illness	1	.06	.05	.06	5.32**	(3, 249)	1.28	1.07	.08
Contact to PTSD	1						1.78	.67	.17**
Education	1						.31	.22	.09
Just World Beliefs	2	.09	.07	.03	8.06**	(4, 248)	-.14	.05	-.17**
Self-Compassion	3	.09	.07	.00	.02	(5, 247)	-.01	.07	-.01

* $p < .05$ (2-tailed). ** $p < .01$ (2-tailed).

Table 3

Summary Step of Hierarchical Multiple Regression Analysis for Social Restriction Subscale- Pairwise

Variable	Step Entered	R^2	Adj.R^2	ΔR^2	*F* Change	*df*	*B*	*SE B*	β
Contact to PTSD (N:254)	1	.07	.05	.07	5.57 **	(2, 157)	-1.40	.61	-.18*
Education (N:254)	1						-.35	.20	-.14
Victim Blaming (N: 161)	2	.12	.11	.06	10.33**	(3, 156)	.99	.34	.22**
Just World Beliefs (N: 255)	3	.14	.12	.02	3.11	(4, 155)	.08	.05	.13
Self-Compassion (N: 255)	4	.14	.11	.00	.31	(5, 154)	.03	.06	.04

Note: When pairwise deletion is in effect, the degrees of freedom are based on the smallest number of cases used in the calculation of any of the zero-order correlations ("Partial Correlation Options," n.d.).
* $p < .05$ (2-tailed). **$p < .01$ (2-tailed).

Table 3b

Summary Step of Hierarchical Multiple Regression Analysis for Social Restriction Subscale- Listwise (N:159)

Variable	Step Entered	R^2	Adj.R^2	ΔR^2	*F* Change	*df*	*B*	*SE B*	β
Contact to PTSD	1	.11	.10	.11	9.54**	(2, 156)	-1.57	.64	-.19*
Education	1						-.47	.22	-.17*
Victim Blaming	2	.16	.15	.05	9.85**	(3, 155)	.98	.36	.20**
Just World Beliefs	3	.20	.18	.04	7.91**	(4, 154)	.14	.05	.21**
Self- Compassion	4	.20	.18	.00	.06	(5, 153)	-.02	.06	-.02

* $p < .05$ (2-tailed). **$p < .01$ (2-tailed).

Table 4

Summary Step of Hierarchical Multiple Regression Analysis for Benevolence Subscale-Pairwise

Variable	Step	R^2	AdjR^2	ΔR^2	*F* Change	*df*	*B*	*SE B*	β
Contact to PTSD (N:254)	1	.12	.11	.12	10.63 **	(2, 157)	2.21	.73	.23**
Education (N:254)	1						.65	.25	.21**
Victim Blaming (N: 161)	2	.15	.13	.03	5.40 *	(3, 156)	-.85	.40	-.16*
Just World Beliefs (N:	3	.16	.14	.02	2.83	(4, 155)	-.09	.06	-.12
Self-Compassion (N: 255)	4	.17	.14	.00	.79	(5, 154)	-.07	.07	-.07

Note: When pairwise deletion is in effect, the degrees of freedom are based on the smallest number of cases used in the calculation of any of the zero-order correlations ("Partial Correlation Options," n.d.).
* $p < .05$ (2-tailed). ** $p < .01$ (2-tailed).

Table 4b

Summary Step of Hierarchical Multiple Regression Analysis for Benevolence Subscale- Listwise (N:159)

Variable	Step	R^2	Adj.R^2	ΔR^2	*F* Change	*df*	*B*	*SE B*	β
Contact to PTSD	1	.15	.14	.15	14.04**	(2, 156)	2.36	.79	.23**
Education	1						.71	.27	.21**
Victim Blaming	2	.17	.16	.02	3.76	(3, 155)	-.71	.44	-.12
Just World Beliefs	3	.20	.17	.02	4.32*	(4, 154)	-.13	.06	-.16*
Self-Compassion	4	.20	.17	.00	.131	(5, 153)	.03	.07	.03

* $p < .05$ (2-tailed). ** $p < .01$ (2-tailed).

Appendix B: Demographic Questionnaire

1. Age: ____________

2. State of Current Residence: ________________

3. Gender:

   . Male

   . Female

   . Nonbinary gendered

4. Sexual Orientation:

   . Heterosexual

   . Gay/Lesbian

   . Bisexual

   .Another-Please specify

4. Ethnicity/Race:

   . Black/African Descent

   . White/European Descent

   . Latino/Hispanic

   . Asian/Pacific Islander

   . Native American

   . Multi-racial/Multi-ethnic

   . Other. If other, please Specify _______________

5. Highest Attained Educational Level:

   . High School Diploma/GED

   . Associate's Degree

   . Bachelor's Degree

. Master’s Degree

. Doctorate Degree

. Professional Degree (e.g., law, dental)

6. Current Income Level:

   . $0 - $18,000

   . $18,000 - $35,000

   . $35,000-$75,000

   . $75,000-$100,000

   . $100,000 and above

7. Do you now or have you ever had a personal and/or professional relationship with an individual who had a mental illness?

   . Professional

   . Personal

   . Both

   . None

8. Do you now or have you ever had a personal and/or professional relationship with an individual who had been diagnosed with combat-related PTSD?

   . Professional

   . Personal

   . Both

   . None

Appendix C: Adapted Community Attitudes of Mental Illness (CAMI)

(Taylor & Dear, 1981)

Instructions: Please read each of the following statements carefully and then rate your level of agreement with each statement using the following scale:

1= Strongly agree

2= Agree

3= Neutral

4= Disagree

5= Strongly Disagree

1. More tax money should be spent on the care and treatment of individuals with combat-related PTSD.
2. The individuals with combat-related PTSD should be isolated from the rest of the community.
3. The best therapy for many individuals with combat-related PTSD is to be part of a normal community.
4. Individuals with combat-related PTSD are a burden on society.
5. Individuals with combat-related PTSD are far less of a danger than most people suppose.
6. Locating treatment facilities for combat-related in a residential area downgrades the neighborhood.
7. Individuals with combat-related PTSD have for too long been the subject of ridicule.

8. A woman would be foolish to marry a man who has suffered from combat-related PTSD, even though he seems fully recovered.
9. As far as possible combat-related PTSD services should be provided through community based facilities.
10. Increased spending on combat-related PTSD treatment services is a waste of tax dollars.
11. No one has the right to exclude individuals with combat-related PTSD from their neighborhood.
12. Having individuals with combat-related PTSD living within residential neighborhoods might be good therapy, but the risks to residents are too great.
13. We need to adopt a far more tolerant attitude toward individuals with combat-related PTSD in our society.
14. I would not want to live next door to someone who has been diagnosed with combat-related PTSD.
15. Residents should accept the location of combat-related PTSD treatment facilities in their neighborhood to serve the needs of the local community.
16. There are sufficient existing services for individuals with combat-related PTSD.
17. Individuals with combat-related PTSD should be encouraged to assume the responsibilities of normal life.
18. Local residents have good reason to resist the location of combat-related PTSD treatment services in their neighborhood.
19. Our mental hospitals seem more like prisons than like places where the individuals with combat-related PTSD can be cared for.

20. Anyone with a history of combat-related PTSD should be excluded from taking public office.
21. Locating combat-related PTSD treatment services in residential neighborhoods does not endanger local residents.
22. Individuals with combat-related PTSD do not deserve our sympathy.
23. Individuals with combat-related PTSD should not be denied their individual rights.
24. Combat-related PTSD treatment facilities should be kept out of residential neighborhoods.
25. We have the responsibility to provide the best possible care for individuals with combat-related PTSD.
26. Individuals with combat-related PTSD should not be given any responsibility.
27. Residents have nothing to fear from people coming into their neighborhood to obtain combat-related PTSD treatment services.
28. It is best to avoid anyone who has combat-related PTSD.
29. Most women who were once diagnosed with combat-related PTSD can be trusted as baby sitters.
30. It is frightening to think of people with individuals with combat-related PTSD living in residential neighborhoods.

Appendix D: Global Belief in a Just World Scale (GBJWS)

(Lipkus, 1991)

Instructions: Please read each of the following statements carefully and then rate your level of agreement with each statement using the following scale:

1= Strongly disagree

2= Moderately disagree

3= Slightly disagree

4= Slightly agree

5= Moderately agree

6= Strongly agree

1. I feel that people get what they are entitled to have.
2. I feel that a person's efforts are noticed and rewarded.
3. I feel that people earn the rewards and punishments they get.
4. I feel that people who meet with misfortune have brought it on themselves.
5. I feel that people get what they deserve.
6. I feel that rewards and punishments are fairly given.
7. I basically feel that the world is a fair place.

Appendix E: Self-Compassion Scale (SCS)

(Neff, 2003b)

Instructions: Please read each of the following statements carefully and then rate your level of agreement with each statement using the following scale:

1= Almost Never

2= Seldom

3= Sometimes

4= Often

5= Almost Always

1. I'm disapproving and judgmental about my own flaws and inadequacies.
2. When I'm feeling down, I tend to obsess and fixate on everything that's wrong.
3. When things are going badly for me, I see the difficulties as a part of life that everyone goes through.
4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.
5. I try to be loving towards myself when I'm feeling emotional pain.
6. When I fail at something important to me, I become consumed by feelings of inadequacy.
7. When I am down and out, I remind myself that there are lots of other people in the world feeling like I am.
8. When times are really difficult, I tend to be tough on myself.
9. When something upsets me, I try to keep my emotions in balance.
10. When I feel inadequate in some way, I try to remind myself that feeling of inadequacy are shared by most people.

11. I’m intolerant and impatient towards those aspects of my personality I don’t like.
12. When I’m going through a very hard tie, I give myself the caring and tenderness I need.
13. When I’m feeling down, I tend to feel like most other people are probably happier than I am.
14. When something painful happens, I try to take a balanced view of the situation.
15. I try to see my failings as part of the human condition.
16. When I see aspects of myself I don’t like, I get down on myself.
17. When I fail at something important to me, I try to keep things in perspective.
18. When I’m really struggling, I tend to feel like other people must be having an easier time of it.
19. I’m kind to myself when I’m experiencing suffering.
20. When something upsets me, I get carried away with my feelings.
21. I can be a bit cold-hearted towards myself when I’m experiencing suffering.
22. When I’m feeling down, I try to approach my feelings with curiosity and openness.
23. I’m tolerant of my own flaws and inadequacies.
24. When something painful happens, I tend to blow the incident out of proportion.
25. When I fail at something that’s important to me, I tend to feel alone in my failure.
26. I try to be understanding and patient towards those aspects of my personality I don’t like.

Appendix F: The Victim Blaming Vignette (VB)

(VanDeursen, Pope, & Warner 2012).

Please read the following vignette and then answer the two questions that follow:

Ms. Brown, a woman in her mid-30's, had to work late one night. On the way to her car, she was approached by a man with a gun who commanded that she give him her purse, keys, and cell phone. He took everything from her and then forced her to show him where her car was parked. He proceeded to get in her car and drive off with all her possessions, keeping the gun pointed on her the entire time and leaving her stranded in the parking garage.

To what extent do you think that Ms. Brown's behavior is to blame for the fact that she was mugged?

1 = Not at all 2 3 4 5 6 7 = Very Much

Appendix G: Balanced Inventory of Desirable Responding Short Form (BIDR-16)

(Hart, Ritchie, Hepper, & Gebauer, 2015; Paulhus, 1991)

Instructions: Please read each of the following statements carefully and then rate your level of agreement with each statement using the following scale:

1= Strongly agree

2= Agree

3= Somewhat agree

4= Neither agree or disagree

5= Somewhat disagree

6= Disagree

7= Strongly Disagree

1. I have not always been honest with myself.
2. I always know why I like things.
3. It's hard for me to shut off a disturbing thought.
4. I never regret my decisions.
5. I sometimes lose out on things because I can't make up my mind soon enough.
6. I am a completely rational person.
7. I am very confident of my judgements.
8. I have sometimes doubted my ability as a lover.
9. I sometimes tell lies if I have to.
10. I never cover up my mistakes.
11. There have been occasions when I have taken advantage of someone.
12. I sometimes try to get even rather than forgive and forget.

13. I have said something bad about a friend behind his or her back.

14. When I hear people talking privately, I avoid listening.

15. I never take things that don't belong to me.

16. I don't gossip about other people's business.

Appendix H: Institutional Review Board Approval Letter

Institutional Review Board for the Protection of Human Subjects

Approval of Initial Submission – Exempt from IRB Review – AP01

Date: December 07, 2016 **IRB#:** 7525

Principal Investigator: Hannah Tyler, MS **Approval Date:** 12/07/2016

Exempt Category: Category 2

Study Title: Community Stigmatization of Combat-Related PTSD: The Influence of Just World Beliefs and Self-Compassion

On behalf of the Institutional Review Board (IRB), I have reviewed the above-referenced research study and determined that it meets the criteria for exemption from IRB review. To view the documents approved for this submission, open this study from the *My Studies* option, go to *Submission History*, go to *Completed Submissions* tab and then click the *Details* icon.

As principal investigator of this research study, you are responsible to:

- Conduct the research study in a manner consistent with the requirements of the IRB and federal regulations 45 CFR 46.
- Request approval from the IRB prior to implementing any/all modifications as changes could affect the exempt status determination.
- Maintain accurate and complete study records for evaluation by the HRPP Quality Improvement Program and, if applicable, inspection by regulatory agencies and/or the study sponsor.
- Notify the IRB at the completion of the project.

If you have questions about this notification or using iRIS, contact the IRB @ 405-325-8110 or irb@ou.edu.

Cordially,

Ioana Cionea, PhD
Vice Chair, Institutional Review Board