An Anthropological Critique of Post Traumatic Stress Disorder, Treatments, and the Associated Barriers to Care

KATHRYN ANNE KUSPIS

A Thesis Submitted to the Honors College
In Partial Fulfillment of the Bachelors Degree
With Honors in
Anthropology
THE UNIVERSITY OF ARIZONA
MAY 2015

Approved by:

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Abstract: This literature review looks critically at Post Traumatic Stress Disorder (PTSD). It does this by using a biocultural lens to critique treatments, stigma, and access to care. This is made possible by framing the argument around concepts of: stigmatization, structural violence, social support systems, and epigenetics. Ultimately the aim of this thesis is to expand the typical view of PTSD studies into a broader perspective, which includes structural factors, the importance of culture, and an acknowledgement of the role of the environment on human biology. Finally, suggestions are made to help encourage a more interdisciplinary approach to PTSD and other mental health disorders.
INTRODUCTION

Post-traumatic stress disorder (PTSD) is a mental health condition that affects over three percent of American adults (NHIM 2). This literature review examines mental health in the United States, with an emphasis on PTSD. Treatments and specific barriers to care are discussed before looking at select opinions from a small variety of mental healthcare professionals. These opinions and barriers will then be evaluated critically through a biocultural lens. Specifically, how the biological and cultural factors influence current barriers to treatment and how these factors can be used to help understand development of PTSD. Using this information, suggestions on how to improve future research will be made. Hopefully, inspiring a more interdisciplinary approach as well as more consideration being placed on outside factors that contribute to mental health problems.

METHODS

Overview:

Research for this project began in January of 2014. This process started with brainstorming multiple ideas and doing background research on each of them to determine which path would be the most engaging. A few topics that covered a variety of approaches in Anthropology were considered. Overall, this topic was selected due to my interests in medical anthropology and mental health disorders; as well as, its relevance to current events. Next, I conducted background research to understand what mental health professionals I might be able to recruit for interviews. In tandem with this process, I developed my research protocol and semi-structured questionnaires. To round out my understanding of current forms of treatment I conducted a literature review using the following databases: EBSCO host, Google Scholar, and
PubMed, and key words such as: PTSD, trauma, stress, veterans, mental health, anthropology, social stigma, stigma, barriers, epigenetics, structural violence, social support, treatment, best practices, and healthcare. These elements were then combined to form a cohesive examination of PTSD, how it is treated, and the effects of social stigma and representation.

Barriers:

Throughout this process, several barriers involving conducting the interviews were encountered. The largest and most apparent of these obstacles was time constraint. This first became apparent when conducting research on what type of people would be useful to interview. Initially, permission to interview Veterans Administration (VA) doctors, in order to gain insight to PTSD treatments commonly used on returning Veterans, was requested. Unfortunately, upon further investigation it was discovered that the VA requires at minimum a one-year approval process in order to begin conducting research with their doctors or patients. Furthermore, it was unlikely that nonaffiliated undergraduate research would be approved due to emerging controversies and increasingly strict privacy policies. This in turn had to be eliminated as an option. Upon learning this, alternative PTSD professionals were contacted and asked to participate in this research.

A goal was set to conduct ten interviews with various professionals in the fields of mental health treatment and PTSD. Many individuals were contacted and nine interviews were scheduled for the Fall Semester of 2014. However, due to unforeseen circumstances several interviews had to be canceled and were unable to be rescheduled. This in combination with loosing contact with several interviewees, led to only three interviews being conducted. Two of these interviews were completed in December of 2014 and one was preformed in March of 2015.

Reflection:
If this research project was to be conducted again there are several areas that could be improved upon. Ideally, the timeline of the project would be expanded to allow for several more interviews and more access to the VA. Interviews with patients would be a constructive addition; however, realistically they would be difficult to obtain. Overall, a main change that should be made would be increasing both the number and variety of interviews. Additionally, a survey that polls the general public on attitudes surrounding mental health and PTSD should be included. This would add depth to the arguments and supplement the professional opinions. In relation to increasing the timeline, better time management and more working hours should be put in place to increase the overall quality of the work. Similarly, changes in the way that research was conducted could also be improved upon. More narrowly targeting research topics would streamline the process as well as allow the project to have a more narrow focus. If all of these idealistic changes were able to happen, and no further unforeseen obstacles were encountered, there would be a measurable difference in the completed work.

MENTAL HEALTH IN THE UNITED STATES

Mental health is “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (WHO, 2001). An individual’s mental health is composed of a balance of three factors. These factors are emotional well-being, psychological well-being, and social well-being (Mental Health Basics, 2013). Emotional well-being is an individual’s perceived satisfaction with life, including mood. Psychological well-being is an individual’s self perception, this includes self-acceptance, attitude, and relationships with others. Lastly, social well-being is an individual’s place in society, their societal usefulness,
and sense of community. Social determinants are one of the strongest indicators of mental health (Mental Health Basics, 2013). When these three things go out of balance that is where mental disorders originate. Mental illnesses are diagnosable disorders that display specific characteristics and symptoms, impairing normal psychological function (Mental Disorder, n.d.).

The first historical era of mental health treatment was in the 1840s, the age of the asylum. Dorothea Dix was an advocate for the mentally ill and helped establish 32 state hospitals (PBS, 2002). By the turn of the century, the state of asylums was reveled to be quite abysmal by a famous report by Nellie Bly and in A Mind That Found Itself by Clifford Beers. Additionally, throughout the early 20th century the study of psychology and Sigmund Freud were adding to the knowledge base about mental illnesses. In the post world war two era two major publications about mental health were developed. In the sixth edition of the International Classification of Diseases (ICD -6) a section for mental disorders was included. Additionally, the American Psychiatric Association published a similar classification of mental health disorders in 1952 called the Diagnostic and Statistical Manual: Mental Disorder (DSM: History of the Manual, n.d.). In 1946, Harry Truman signed the National Mental Health Act, this lead to the development of the National Institute of Mental Health (PBS, 2002). The number of hospitalized mentally ill peaks in the 1950s, at the same time the first anti-psychotic drugs are developed (PBS, 2002). As a result, the 1960s saw mass deinstitutionalization of the mentally ill. However, deinstitutionalization also leads to many of those with mental disorders becoming homeless. This marks the end of the asylum era (PBS, 2002). The following decades show a rise in advocacy groups for mental health as well as several laws being put into place. However, this does not stop massive defunding of mental health care in the 1980s. Eventually, this defunding leads to 7.2
percent of inmates, in 1992, having serious mental illnesses; with over a quarter held without charges (PBS, 2002).

The impacts of mental illness are considerable and widespread. On average, one in four Americans suffers from a mental health disorder, and half of adults will have at least one in their lifetime (CDC Report: Mental Illness Surveillance Among Adults in the United States, n.d.). The area where mental illness has the largest impact, in the US, is in the South East, where in 2006 prevalence was as high as 13 percent in some states. With over 60 million Americans affected, the economic impact is sizable. In 2006, $57.5 billion were spent in relation to mental disorders, making it one of the top five most costly medical conditions in the United States (Mental Health: Research Findings: Program Brief, 2014). Additionally, the cost of mental health disorders is on rise. Aside from the direct economic impact, the comorbidity of mental illnesses adds an additional layer to their impact on society and healthcare. Forty-five percent of people with mental health disorders have two or more, frequently substance abuse problems (AMI Among Adults, n.d.). Furthermore, those with a mental illness are more likely to suffer from chronic diseases such as cardiovascular disease, cancer, and obesity; only adding to the burden (CDC Report: Mental Illness Surveillance Among Adults in the United States n.d.). Ultimately, mental health disorders are the leading cause of disability in the United States (Mental Health Basics, 2013; Mental Health: Research Findings: Program Brief, 2014).

WHAT IS PTSD

In 1980, post-traumatic stress disorder (PTSD) was added to the Diagnostic and Statistical Manual of Mental Disorders (DSM) (Turnbull 1998, 88). Despite this, the idea of a manifestation of a psychological change from a traumatic event has been around much longer.
PTSD has seen many names throughout history including; traumatic shock, shell shock, disordered action of the heart, battle fatigue/combat exhaustion, and railway spine (Turnbull 1998, 87). Currently, PTSD will affect 6.8 percent of the United States population in their lifetime. Furthermore, the single year prevalence is 3.5 percent, with 36.6 percent of these classified as severe cases (PTSD among adults, n.d.).

According to the National Institute of Mental Health (NIMH) post-traumatic stress disorder is the result of a change in/damage of the ‘fight-or-flight’ response after an experience involving physical harm or threat of physical harm (Post-traumatic stress disorder, n.d.). Moreover, PTSD is a type of anxiety disorder that manifests in a unique way. This results in three classes of symptoms for PTSD patients. The first of these symptoms are called ‘re-experiencing’ symptoms. These include (but are not limited to) flashbacks and bad dreams. This type of reaction can occur from someone’s own thoughts or from an outside trigger. Similarly, another symptom class is ‘hyper-arousal’ symptoms; this includes trouble sleeping and feeling ‘on edge’ (Post-traumatic stress disorder, n.d). The last set of symptoms experienced is ‘avoidance’ symptoms. These are a key element of PTSD. So much so that in 1987, one of the major revisions to DSM III-R was the inclusion and explanation of avoidance symptoms to the definition of PTSD (Turnbull 1998, 89). Today, the definition of PTSD is specific enough to be independently classified. Yet, the definition of trauma is broad enough to include various types of trauma.

Veterans returning from war are what first brought PTSD to public attention, and who PTSD is most commonly associated with today (Post-traumatic stress disorder, n.d.). However, trauma comes in many forms and therefore many different types of events can be causes for PTSD. These can range from childhood trauma, to sexual assault, to witnessing violence against
others. It is also important to mention that not everyone who undergoes a traumatic event will experience a psychological reaction (P. Haynes, personal communication, 2014). Because of this, trauma cannot be pinpointed as the singular cause of the disorder.

Research is currently being conducted to examine what other factors many play a part in the development of PTSD. Genes have been explored as a potential influence of PTSD development with several possibilities uncovered. However, it is impossible to select one of these as the ‘PTSD gene,’ when in actuality it is most likely that several genes with small effects influence the development of PTSD (Post-traumatic stress disorder, n.d.). Furthermore, the role that the environment plays on genetics is also relevant to the development of PTDS (Koenen, Amstadter, & Nugent, 2009; Nugent, Amstadter, & Koenen, 2008). Other areas being studied include, gender differences, various interactions between brain areas, and neurobiological mechanisms (Olff et. al 2007; Post-traumatic stress disorder, n.d.).

TRADITIONAL TREATMENTS AVAILABLE

There are several different treatments available to people with PTSD. They are broadly broken up into two categories: pharmacotherapy and psychotherapy. Pharmacotherapy is the use of medications to help control symptoms of a disease, in this case PTSD. The primary medications used are selective serotonin reuptake inhibitors (SSRIs), which are a form of antidepressant. These drugs elevate mood by increasing the amount of serotonin in the brain. The VA and the US Food and Drug Administration (FDA) have both approved these drugs for PTSD treatment (Treatment of PTSD, n.d; Treatments and Drugs, 2014). Additionally, anti-anxiety medications sometimes are used to treat stress related problems. However, they are only used for short amounts of time due to potential for abuse (Treatments and Drugs, 2014). Another type of
medication that is used in PTSD treatment is prazosin. This medication treats PTSD associated sleep problems such as insomnia and nightmares (Treatments and Drugs, 2014). However, while medications do work on controlling PTSD symptoms they are not always the best or most effective option.

Psychotherapy is treatment where a patient talks to a therapist to work through potential problems; this is sometimes also called cognitive behavioral therapy. Psychotherapy is done in four major ways. The first type of treatment is cognitive therapy, which involves talking with a therapist to help adjust and understand the way a patient thinks about trauma and traumatic events (Treatment of PTSD, n.d, Treatments and Drugs, 2014). Comparably, there is also exposure therapy. This type of treatment is similar to cognitive therapy in that it involves talking with a provider and adjusting the way you think about certain things. However, the overall goal of exposure therapy is to become less fearful of your memories. This process is completed by talking about a traumatic event many times until the patient is more in control and less overwhelmed by the memory (Treatment of PTSD, n.d). While this technique is shown to be effective, as of 2003, it was only implemented in a small percentage of practices (Becker, Zayfert, & Anderson 2004). However, it is currently becoming more common among therapists, because it is seen as quite effective (S. Perkins, personal communication, 2015). Eye movement desensitization and reprocessing (EMDR) is yet another psychotherapy available to PTSD patients. Similar to the other treatments this therapy is preformed by talking about memories with a therapist, yet instead of simply listening the therapist makes the patient focus their eyes on other stimuli while talking. The efficacy of this is still debated amongst professionals (Treatment of PTSD, n.d; S. Perkins, personal communication, 2015). The final type of psychotherapy is similar to EMDR but focuses more on breathing and muscle relaxation. This technique is called
stress inoculation training (SIT), and includes many traditional elements of cognitive therapies (VAgl). In contrast to EMDR, SIT is the most studied anxiety therapy for PTSD (Management of Post-Traumatic Stress, 2010).

Veteran’s Administration and the Department of Defense (DoD) have established clinical practice guidelines of best practices for PTSD. These cover everything from diagnosis, to prevention, to treatments. This set of treatments referred to as evidence based protocols, and are called such because they are techniques that are shown to be effective by research. All of the treatments listed above are included in these guidelines. However, only SSRI medications are strongly recommended (Management of Post-Traumatic Stress, 2010). There are new and alternative treatments being explored in the treatment of PTSD; however, the VA/DoD are very limited in the ‘Adjunctive Services’ that they support. Even more limiting, these treatments that are not considered ‘best practices’ are not officially recommended by the VA, but rather ‘can be considered’ (Management of Post-Traumatic Stress, 2010). These restrictions can be seen as a built in barrier to seeking alternative treatments, yet there also significant barriers that exist to seeking any type of treatment.

BARRIERS TO TREATMENTS

The two largest barriers that exist for those seeking PTSD treatments are stigma and access to care. This is shown across several studies looking at different populations that have a high incidence of PTSD (Davis et. al 2008; Hines-Martin et. al 2003; Hoge et. al 2004; Mittal et. al 2013). Stigma in this context is, “a set of negative and often unfair beliefs that a society or group of people have about something” (Stigma, n.d.). There are many ways in which stigma can become a barrier for someone with PTSD. According to the National Center on Disability (NCD), stigma presents itself in three ways: public stigma, self-stigma, and structural stigma
Public stigma is a set of (mis)perceptions that the others have about PTSD. When a survey was completed on reasons military personnel fail to seek help for mental health problems the most predominant reason given was ‘I would be seen as weak’ (Hoge et. al 2004, p. 21). This response was believed to be true by 65 percent of soldiers who met the screening criteria for having a mental disorder, and 31 percent by those who did not (Hoge et. al 2004 p. 21). Self-stigma is the internalization of public stigma (Section 6: Barriers to Seeking Care, n.d.). This becomes a barrier to care when a person with PTSD begins to believe negative stereotypes and thinks that it is better to not admit that they have a problem or seek help (Hines-Martin et. al 2003). The last type of stigma is structural stigma and combines both public and self-stigma. It is manifested in policies that hinder success for those who have/are known to have PTSD (Section 6: Barriers to Seeking Care, n.d.). Another response from the previously mentioned survey is ‘it would harm my career.’ This response was believed to be true by 50 percent of those who potentially have mental disorders, and 24 percent of those without (Hoge et al 2004, p. 21). Structural stigma can also display itself in the form of structural violence and lead to difficulties obtaining care.

The other major barrier to obtaining PTSD treatment is access to care. It is often perceived that patients of PTSD, especially those associated with the military, only have a short window of time in which they can seek care. However, the VA encourages veterans to seek care as soon as possible (What's Stopping You? Overcome Barriers to Care, n.d.). Beyond these recommendations there is a perception that obtaining treatment for PTSD is difficult, and in many cases this is true. For example, studies that look at PTSD in intercity African Americans cite access to care as one of the biggest barriers to care (Davis et. al, 2008; Hines-Martin et. al, 2003). The two main reasons that access to care was an issue for these groups was the need for
transportation and limited incomes (financial) (Davis et. al, 2008). These problems in addition to; bureaucratic complications, ease of use, clinic hours, and being able to get time off of work, were all listed as problems obtaining care for military personnel (Hoge et. al, 2004; Mittal et. al, 2013; NCD).

These barriers prevent people who have PTSD from seeking the necessary care. Additionally, these factors are compounded by the avoidance nature of the disease itself. Often times avoidance does not only mean avoiding people or traumatic memories, but treatment as well (Hines-Martin et. al, 2003; Mittal et. al, 2013). Furthermore, for soldiers with PTSD the military culture can become a breeding ground of barriers for treatment. Stigma and institutional barriers create an environment in which seeking treatment is made reasonably difficult (Mittal et. al, 2013; S. Perkins, personal communication, 2015).

WHAT THE PROFESSIONALS SAY

Interviews with mental healthcare professionals reveal interesting insights into the relationship between social stigma and the treatment of PTSD. These interviews show a wide range of viewpoints held, from a variety of individuals, in an assortment of positions. One interviewee is a researcher studying the effects of whole body hypothermia on mood disorders, including PTSD. Another interviewee is a clinical psychologist at the University of Arizona. The last interviewee is a social worker at the Tucson Veterans Administration. These different points of view show a diversity of opinions, especially with regard to stigma.

Perhaps unsurprisingly, the interview that varied the most from the other two was that of the researcher. Not only does Clemens Jansen treat PTSD in a unique way, he is also the only male interview (which may influence opinions). Mr. Jansen’s work entails re-discovering
treatments for things previously learned by different cultures, determining why and how they work, and then creating working modern treatments. This research-based job examining alternative medicines has influenced his view of stigma and of medicine. His overall opinion of stigma is that there is far less today than there has been in the past, not just for PTSD but also for all mental health disorders. He goes on to state that, even in early treatment of mental disorders (the asylum age), the primary goal has always been to figure out what is going on. He emphasizes his belief that the more that is known about a disease the more the public will accept it (C. Jansen, personal communication, 2014). Essentially stating, that from a public viewpoint the more that is uncovered about how a mental illness works the more ‘real’ the disease is perceived to be. In relation to stigma, Jansen makes it clear that education can help people see that diseases that seem to be ‘invisible’ are real, and should not be feared. Furthermore, the public likes when there are explainable biological mechanisms at work behind either a treatment or disease. This provides a sense of faith ‘even though I can’t see this mechanism I know researcher X and he must be telling the truth.’ This demonstrates the faith that people have in science and medicine in absence of being able to prove/see something themselves.

The following two interviews both come from mental healthcare provider standpoints. Therefore, their opinions were much more similar to one another. However, they do differ in meaningful ways that should be highlighted. In her work Dr. Patricia Haynes uses evidence-based therapies. When asked about the stigma Dr. Haynes stresses the large varieties of opinions that exist. Furthermore, she emphasizes that all cases of PTSD are context specific and individualized. Despite this, Dr. Haynes recognizes that PTSD is stigmatized in the same manor that all mental health issues are stigmatized. The social perceptions of PTSD affect treatment-seeking behaviors, which in turn can change individual treatment paths. Dr. Haynes explains her
The ideal view of PTSD. First, clarifying that the comparison of PTSD to a chronic illness is not her favorite, because PTSD can be treated and it is not a life long condition. A patient may not be exactly the same at the end, but they are healed and their disorder is no longer interfering with their day-to-day life. Next, she explains that it would be nice if PTSD could be viewed more as something to ‘take care of,’ and uses an analogy of minor surgery, and the following recovery and physical therapy processes. However, the most important change that she would like to see would be commonplace formations of social support systems to help encourage the recovery process. She discussed how support throughout the entire treatment process helps encourage a patient that they are improving. Beyond this she says continued support helps prevent patients from backsliding, becoming stagnant, or dropping out of treatment.

The other healthcare provider I spoke with was Suzanne Perkins, a social worker with the Tucson VA. Her experience is exclusively with the military, and therefore she had several things to say about how military culture interacts with the treatment of PTSD. First, noting the fact that stigma is the number one barrier to treatment within the military (Section 6: Barriers to Seeking Care, n.d.). This added to the avoidance behaviors associated with PTSD has a major effect on treatment seeking behaviors. From Perkins’ experience there is a huge resistance to mental health treatment within the military. Additionally, she feels that the media has sensationalized the disorder adding to the negative public perceptions of PTSD. She believes that stigma can come from a variety of sources, but often veterans do not even think they have PTSD because of these dramatized media portrayals. This can lead to self-minimization of the disease in two ways. One, ‘I don’t have that I don’t act crazy’ or two, ‘I can’t have PTSD I know people who have gone through much worse.’ This creates a narrative in which seeking help can be stigmatized. Once treatment is sought, Perkins uses evidence based protocol treatments in accordance with VA
policy; individualizes treatment for each patient. Over her career, she has seen PTSD treatments change. This occurred most significantly in 2006, when the VA made the standardized treatment for PTSD evidence based protocols with and emphasis on prolonged exposure therapy. She goes on to state that even among seasoned professionals use of exposure therapy is used at a non-consistent level throughout the VA. When asked why she thinks that stigma persists her response was simple: people do not like being wrong. Because of persistent stigma, her ideal view of PTSD is difficult to achieve. She would like to see PTSD seen as any other health problem. PTSD should be seen as treatable with a path to recovery and back to normalcy (S. Perkins, personal communication, 2015).

ANTHROPOLOGICAL CRITIQUE

Anthropologists, particularly biological and medical anthropologists, walk the lines between biology and culture. This puts them in a unique position to look at both the science behind a problem and the larger factors that may contribute to it. Traditionally, studies and reviews on PTSD focus on the epidemiology of the disease, how particular stressors impact development of the disease, treatment of the disease, or underlying genetic components to disease development (Koegel, 1992). All of which are rooted in science, and are often militarily based. This adds to the misconception that only war trauma causes PTSD. When cross-cultural studies are conducted two very polarized positions emerge. Either PTSD is examined as a universally accepted response to traumatic events, or this position is critiqued as imprinting western ideals on other cultures and ignoring the cultural construct of illness and disease (Kienzler, 2008). However, there is a need to unite these two positions to find common ground
(Kienzler, 2008), this is where a biocultural perspective is important to the larger social understanding of disease and culture.

Biological anthropology can help bring these two positions together by merging concepts from cultural anthropology with psychological viewpoints. To do this effectively cross-cultural psychiatry needs to be explored. Anthropologist, Arthur Kleinmen popularized this idea as a way to critically study disease and culture interactions without ignoring the impact of culture or imposing western biomedicine ideas on the studied population (1977). Today cultural psychiatry has three major focus areas, two of which will be explored in this critique. They are (a) cross-cultural psychiatry is multidisciplinary in nature and (b) psycho-processes are not only within an individual, but are intrinsically social (Kirmayer, 2006). This critique will take this concept of cross-cultural psychiatry and apply it to a biocultural lens through which social structures can be connected to human-environment interactions (Leatherman, 2005). This will help explain how barriers, such as stigma and access to care, are formed and the power they have.

Furthermore, this approach will help demonstrate the value of a multidisciplinary approach and help join sides of sciences that typically oppose one another. By adding an anthropological viewpoint the lines between ‘hard’ science and social science are blurred (Choudhury, 2009; Kienzler, 2008 & Leatherman, 2005). This is advantageous because it allows a problem to be looked at from many viewpoints and clear compromises in solutions can be found. Additionally, focusing on one viewpoint can also be problematic when the researcher develops ‘tunnel vision’ surrounding his or her hypothesis.

To complete this comprehensive critique of PTSD four interconnected, but individually significant, anthropological concepts will be evaluated in relation to their interactions with PTSD. These concepts are stigma, social support, structural violence, and the interactions
between the environment and biology. Ultimately, the aim of this thesis is to expand the typical view of PTSD studies into a broader perspective.

Stigmatization:

Stigma represents the largest barrier to care for PTSD patients. However, according to several studies it may not so much be the stigma itself, but rather the patient’s individual perception of how the public views them; that may have the largest impact in terms of barriers to care (Gould, Greenberg, & Hetherton, 2007; Hoge et. al, 2004; Mittal et. al, 2013; Troop & Hiskey, 2013). This is largely linked to the idea of stereotypes that are commonly associated with PTSD. Some examples include people with PTSD are ‘dangerous’ and ‘violent’ (Mittal et. al, 2013). These perceptions can even prevent treatment seeking behaviors as seen in Hoge et. al, with only 34-45% of veterans who met the screening requirements for PTSD were interested in receiving help (2004). Perhaps even more impactful, is the ability to predict the severity of PTSD conditions based upon a respondent’s perceived social rank (Troop & Hiskey 2013). This is related to an idea called social rank theory. This theory basically states that how you perceive yourself in relation to others in society matters and has an effect on you. When one believes they have a low social status they are known to experience what is referred to as ‘social defeat,’ and is indicative of high levels of self-stigma. A study looking at social defeat and PTSD severity, showed respondents with initially high perceptions of social defeat lead to more severe symptoms six months later; when compared to respondents with initially low perceptions of social defeat (Troop & Hiskey 2013).

In an effort to avoid being labeled as ‘crazy,’ many veterans have avoided seeking treatment (Mittal et. al, 2013). This is a thought process that is only enhanced by the avoidance behaviors associated with PTSD. Not only is self-sigma significant in treatment-seeking
behaviors, but social stigma is as well. Beyond social rank theory, a number of studies have displayed treatment avoidance related to the social stigma of how others will perceive a patient upon entering treatment (Gould, Greenberg, & Hetherton, 2007; Hines-Martin et. al, 2003; Hoge et. al, 2004; Mittal et. al, 2013). Therefore, it is possible to see how both self-stigma and public stigma can act as barriers to obtaining care for people with PTSD (Hines-Martin et. al, 2003).

Once a patient enters treatment, their battle with stigma does not end; it is possible that beliefs about stigma can affect treatment adherence (Boehnlein, 2001; Spoont, Sayer, & Nelson, 2005).

Despite the challenges, stigma can be addressed. The most effective way to do this is through education. The more knowledge about PTSD and psychology that is available the less negative stigma persists. For example, individuals who are more educated about PTSD show more positive attitudes about the disease (Arbanas, 2008; Gould, Greenberg, & Hetherton, 2007). Additionally, positive self-view and beliefs lower the possibility of developing suicidal symptoms (Panagioti et. al, 2014). Furthermore, Gould, Greenberg, & Hetherton (2007), state that there are three main areas that can be used to combat stigma. The first is education. This is followed by protest (showing disapproval of those who are outwardly stigmatizing) and then, knowing someone who has PTSD. These three factors have been shown to increase positive attitudes towards those with mental illnesses (Gould, Greenberg, & Hetherton, 2007).

When looking at stigma through a biocultural lens it is also necessary to include knowledge of cultural and social contexts, as well as disease education. It is important to see how a disease is culturally constructed and the associated social contexts of the disease (Boehnlein, 2001; Kirmayer, 2006). This allows for a greater level of cultural competency when treating illnesses and therefore more effective treatments. For example, Kirmayer’s (2006) study found that in Japan there is a lower level of comorbidity of PTSD and depression. This was not because
there were fewer depressed individuals, but rather the way depression is culturally defined in Japan differs from common western ideas. Additionally, if these techniques can be applied to treatment the likelihood of continued adherence increases (Boehnlein, 2001).

The Importance of Social Support:

Interpersonal networks are essential to the effective treatment of PTSD. However, not all types of support are created equal. As PTSD relates to the military, it has been shown repeatedly that veteran-veteran social support have the most significant effect on recovery and are most highly valued by veterans (Gould, Greenberg, & Hetherton, 2007; Laffaye et. al 2008; Mittal et. al, 2013). When looking at these relationships as an anthropologist, connections between kinship and the ‘brotherhood’ of the military can be made. This could account for why vet-vet relations are perceived to be more helpful than other relationships. However, this is not to say that non-veteran relationships are not important. In fact, having poor social support systems can act as a catalyst for development of PTSD. Likewise, having strong supportive networks can act as a buffer against the development of PTSD and help with long-term recovery (Laffaye er. al, 2008). Furthermore, this social buffer effect is also seen in the development of suicidal symptoms (Panagioti et. al, 2014).

Similarly to stigma, it is the perception of social support that matters when it comes to acting as a buffer (Laffaye et. al, 2008; Panagioti et. al, 2014). Studies have shown that there is different perceived value of relationships. Commonly vet-vet relationships are perceived as the strongest and most beneficial, this is followed by family or spousal support, with non-family/non-military friend relationships seen as the weakest and least beneficial. However, this same study had veterans assign the rating to their social systems and results showed an average rating of only three on a scale of five for ‘best support sources’ (Laffaye et. al 2008). While the
benefits of social support are apparent the fragility of it is less so. Initial severity of PTSD symptoms has the ability to predict erosion of social networks. Additionally, initial support does not predict severity of PTSD symptoms over time (Laffaye et al. 2008). Ideally, more research should be conducted to see how support systems of PTSD patients are interacted with and endure over time.

Effects of Structural Violence:

Structural violence is a concept that links disenfranchisement and associated socioeconomic acts of ‘violence’ to indirect systematic attacks created by a social order. An essential part of structural violence in anthropology is being able to take an interdisciplinary approach when looking at problems that have complex upstream causes (Farmer et. al, 2004). This makes structural violence an important idea to take into consideration when looking at mental health and barriers to care. Structural violence relates to PTSD in two major ways: the social determinants of health (SDOH) and susceptible populations.

Social determinants of health are the real life implications of structural violence on health. Social factors that have an impact on individual heath are many and they are diverse. Examples of these stressors are: neighborhood conditions, working conditions, education, income, and race/race relations. Having to cope with any or all of these factors has the ability to lead to chronic stress, which in turn can have a great impact on both mental and physical health (Braveman, 2011; Gravlee, 2009; Hines-Martin et. al 2003; Kuzawa & Sweet, 2009; Lethermen 2005).

Studies have found that the cause of particular populations having higher levels of disease burden can be directly linked to structural factors that lead to disenfranchisement (Gravlee, 2009; Hines-Martin et. al 2003; Kuzawa & Sweet, 2009). Specific examples can shed
light on this direct effect. Early life under-nutrition can have lasting effects and increase the risk of developing cardiovascular disease later in life. Cardiovascular disease disproportionally affects poor African Americans in the United States. Not coincidentally, early childhood and prenatal under-nutrition are also issues that disproportionally affect this same population. Early childhood and prenatal under-nutrition may seem like an issue of individual choice; however, they are direct results of structural inequality and discrimination, not choice (Kuzawa & Sweet, 2009). A similar pattern can be seen with high blood pressure when compared to levels of income and education (Gravelee 2009). Furthermore, emerging neuroimaging data can show a correlation between lower income levels and lower memory retention abilities (Choudhury, 2009).

An additional problem associated with structural violence is the how institutional factors have the ability to act as barriers to care. This can happen in two distinct ways, which mirror the barriers to care for PTSD patients. First, structural violence inhibits ‘access to care.’ This is seen in relation to the actual lack of services available, or lack of funds/time to obtain healthcare (Davis et. al, 2008; Hines-Martin et. al 2003). Additionally, structural violence can be a barrier in the way of stigma. Seen not only in stigma from peers for having a disorder or seeking help, but also stigma from health care providers, this includes lack of cultural competency (Hines-Martin et. al 2003). These barriers become even more prevalent when looking at susceptible populations.

In relation to PTSD, there are two main groups that have been studied as populations susceptible to developing PTSD. These groups are military personnel and children who have experienced trauma. The largest source of structural violence in the military is the military culture itself. This culture presents itself as an outwardly ranked system where you are valued for
individual strength and what you can contribute to a team. This presents the perfect breeding ground for social rank theory to take hold (Gould, Greenberg, & Hetherton, 2007; Troop & Hiskey 2013). As discussed earlier social rank theory is mental effect of your perceived social rank and usefulness. The military culture coupled with the trauma that experienced in war creates a situation where the metaphoric ‘cards’ are ‘stacked against’ soldiers for the development of PTSD. This can be seen as structural violence in the responses that veterans gave in relation to barriers to care. These responses included: ‘there would be difficulty getting time off work for treatment,’ ‘Mental health care costs too much money,’ ‘My unit leadership might treat me differently,’ and ‘I would be seen as weak’ (Hoge et. al, 2004). These responses demonstrate a problem within military culture and show how the structure of the military can act as a barrier to treatment.

This is different from the affects of structural violence on the other vulnerable population, children who have experienced trauma. Studies have shown that children who experience trauma are more susceptible to trauma in adulthood (Mehta et. al, 2013; Olff et. al, 2007). Furthermore, these children are more likely to develop PTSD from traumatic stressors (Mehta et. al, 2013). This is even more true in the case of females. Although, the reason behind this is still being researched; possible explanations include, women being more likely to experience the type of trauma that results in PTSD and the common coping strategies of women (Olff et. al, 2007). Childhood trauma relates to structural violence because of its position in a group of stressors called adverse childhood experiences, which are more likely to occur in socioeconomically marginalized populations.

Overall, the failure to acknowledge these structural factors and the role they play in health results in victim blaming and ineffective downstream approaches to solve larger public
problems (Bravemen, 2011). Additionally, structural violence is a problem that is cyclic in nature and transfers from generation to generation (Bravemen, 2011; Gravlee, 2009; Hines-Martin et. al 2003)

The Role of Environment on Biology:

Epigenetics is the study of the biological mechanisms that change the way in which the genes are expressed. This happens primarily by minor chemical modifications that ‘turn genes on or off,’ but does not change nucleotide sequences, a process that can result because of environmental effects (Zhang & Meaney, 2010). This is how biology can be changed due to the environment (e.g. structural factors, stigma, stress). When related to stress conditions the most common change is in how stress hormones are regulated (Afifi et. al 2010; Kuzawa & Sweeet, 2009; Mehta et. al, 2013). Stress can also affect the plasticity of particular regions of the genome. This can be seen as a ‘two hit’ model, the first hit being the direct biological changes caused by the environment (stress in this case) to an individual, and the second hit being how it effects the responses of subsequent generations (Crews et. al, 2012). This is how the environment and epigenetics can affect people with PTSD and their decedents.

Additionally, this also shows how chronic stress conditions can be heritable. Specifically in relation to PTSD, epigenetic changes caused by the disorder can be moderately heritable (Afifi et. al, 2010; Koenen, Amstadter, & Nugent, 2009; Nugent, Amstadter, & Koenen, 2008). Additionally, the comorbidity of PTSD is partially controlled by shared genetic and environmental reactions (Afifi et. al, 2010). These epigenetic changes occur primarily in genes regulating dopamine receptors, and newer studies have identified genes controlling glucocorticoids as environmentally vulnerable as well (Mulligan et. al, 2012; Nugent, Amstadter, & Koenen, 2008). However, a major limitation of these studies is that epigenetic changes related
to PTSD have been primarily studied in veterans who have experienced similar traumas. This can create both bias and selective data. However, epigenetic effects of stress have been widely studied across different population groups.

When applied to marginalized populations a connection to structural violence can be made. There are marked epigenetic changes in the brains of suicide victims who suffered childhood trauma when compared to those who did not (Mehta et. al, 2013). Problems related to structural violence such as educational achievement, under-nutrition, and high disease burden all lead to epigenetic changes within individuals (Gravlee, 2009; Kuzawa & Sweet, 2009). These changes can then affect the health of future generations. This is because, of the ‘two-hit’ epigenetic model and the fact that the causes of adverse health outcomes are cyclic. Maternal health effects fetal health, which effects infant and childhood health, which effects adult health and maternal health (Gravlee, 2009). This influence is coined epigenetic transgenerational inheritance (Crews et. al, 2012). This phenomenon is displayed in a multitude of studies looking at the relation between stress, maternal health, and influences on fetal development. Studies link external stressors during pregnancy to low birth weight and preterm delivery (Gravlee, 2009; Hobel & Culhane 2003; Mulligan et. al, 2012). Studies looking at PTSD found that culturally relevant prenatal stress has been shown to affect offspring biology. Specifically, disrupting the balance of glucocorticoid receptors and mineralocorticoid receptors affecting stress responses (Mulligan et. al, 2012). While there is a wide body of work looking on the effects of stress currently available, more studies specifically related to PTSD need to be conducted. Furthermore, studies of populations that are non-military would be important in constructing a wider view of what PTSD is and what are its effects.
LOOKING AHEAD

When looking to the future, this review hopes to bring attention to changes that would benefit PTSD, and other mental health research. First, an interdisciplinary approach can increase the overall knowledge gained from a study. This will help highlight the role that biocultural factors play in PTSD treatment and development, and inspire ways to change these factors.

I propose various solutions that relate to the areas critiqued in this literature review. To reduce stigma implementing education programs to susceptible populations has been shown to be effective (Gould, Greenberg, & Hetherton, 2007). The importance of robust support networks should be emphasized in treatment. Furthermore, making support accessible to those who may not have personal support systems and peer outreach programs may help improve treatment outcomes for PTSD patients. Acknowledging that SDOH are important in the realm of mental healthcare is the first step in improving structural factors. Also, implementing upstream solutions to help combat disease development can help reduce the influence of SDOH. Additionally, funding more epigenetic research on the influences of environmental factors and mental health conditions, will add to the understanding of PTSD and how it works. Finally, more studies, on populations other than veterans, are needed. Not having other studies perpetuates the stereotype that only war related trauma results in PTSD.

Ultimately, there is a wide breadth of research on PTSD; however, each study looks at PTSD from a narrow viewpoint within a selected field (e.g. genetics, psychiatry. To improve upon the current and past research a multidisciplinary approach must be made. This will help continue the forward momentum of the work. Additionally, mental healthcare itself can benefit from the addition of a critical look at the barriers to care and why they exist.
Acknowledgements: I would like to state the following work is my own. I would like to thank Ivy Pike for her input and guidance through my thesis experience. Similarly, I would like to thank my mother for moral and emotional support throughout the entire thesis development process. Additionally, I would like to thank Mr. Clemens Jansen, Dr. Tricia Haynes, and Ms. Suzanne Perkins for participating in interviews to help build this paper.


