RETURNING FROM THE SUCK: AN ANALYSIS OF THE MILITARY/DOD AND DEPARTMENT OF VETERAN AFFAIRS RESPONSE TO OIF/OEF SOLDIERS DIAGNOSED WITH PTSD AND SUBSTANCE ABUSE

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RETURNING FROM THE SUCK: AN ANALYSIS OF THE MILITARY/DOD AND DEPARTMENT OF VETERAN AFFAIRS RESPONSE TO OIF/OEF SOLDIERS DIAGNOSED WITH PTSD AND SUBSTANCE ABUSE

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Date

Division of Social Work
Abstract

of

RETURNING FROM THE SUCK: AN ANALYSIS OF THE MILITARY/DOD AND DEPARTMENT OF VETERAN AFFAIRS RESPONSE TO OIF/OEF SOLDIERS DIAGNOSED WITH PTSD AND SUBSTANCE ABUSE

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Statement of the Problem

PTSD is a serious problem facing today’s military veterans. PTSD has also been linked to substance abuse. Current statistical data for substance abuse among OEF/OIF veterans with PTSD is limited. Soldiers diagnosed with PTSD and substance abuse undergo unique challenges in their recovery and therapy. Comparing and analyzing the types of treatments the military and the VA healthcare systems use with soldiers is important because these two agencies are on the front lines when working with soldiers. This project will allow social workers to better understand ongoing treatments and the needs of combat soldiers diagnosed with PTSD and substance abuse.

Sources of Data

In this thesis project, we examine secondary data collected from 18 studies about different treatment modalities used in treating veterans/soldiers returning from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) diagnosed with post traumatic stress disorder and substance abuse. This study also examined the Department
of Defense (DOD)/military and the Department of Veterans Affairs (VA) healthcare systems to analyze what services the agencies provided according to the studies used. The authors of this study collaborated in creating a data extraction sheet to quantify the data. Michael Molina authored Chapters 1, 2, and 3 of this thesis project. Fernando Ortiz authored Chapter 4 and gathered, collected, and analyzed data for this thesis project. Both authors collaboratively wrote Chapter 5.

**Conclusions Reached**

We found that exposure therapy was used nearly 50% of the time to treat PTSD with or without the dual diagnosis of substance abuse. The VA equally used resource education, one-on-one therapy, substance abuse counseling, and group therapy to treat PTSD with the dual diagnosis of substance abuse. The Department of Defense used exposure therapy, group therapy, substance abuse counseling, one-on-one therapy, resource education, case management, family interventions, reintegration services, medication treatment, and Chaplin services all equally to treat PTSD with the dual diagnosis of substance abuse. This suggests that exposure therapy is an effective treatment for PTSD and the two different healthcare systems vary on how they treat PTSD with the dual diagnosis of substance abuse.

__________________________________, Committee Chair
Susan Talamantes Eggman, Ph.D., M.S.W.

__________________________________
Date
DEDICATION

I would like to dedicate this thesis to Mr. Marcos Alvira (My 7th grade Jr. High Teacher from Hoover Jr. High School) for igniting a fire that still burns to this day!

Fernando
ACKNOWLEDGMENTS

To my loving wife Jenny Molina thank you for your encouragement and support throughout this process. To my son Joseph Molina, sorry for all the time I had to spend away from you. To my sister Katie Molina thank you for your editing expertise.

Michael

I would like to acknowledge my family and girlfriend for their sacrifices and support throughout the master’s program.

Fernando
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Chapter 1

INTRODUCTION

Close your eyes and think back to March 19, 2003. What were you doing then? Were you studying for a midterm? Were you kissing your kids goodnight? Were you debating about what to watch on television? On March 19, 2003, for some soldiers in the U.S. military, this was far from reality. For such soldiers, March 19, 2003 was the day they set foot in Iraq where they were welcomed into that country by Iraqi artillery fire, Rocket Propelled Grenades (RPGs), small-arms fire and land mines. Any thoughts of self-doubt and fear the men and women had needed to be put in the back of their minds, and they had to focus on their survival.

Imagine being a soldier deployed to Iraq or Afghanistan and experiencing heavy combat and extremely stressful situations day in and day out for up to a year or more. Imagine walking through a crowded marketplace in the streets of Iraq among hundreds of potentially dangerous people, constantly looking around, focusing on their hands to make sure there were no immediate threats, staying hyper vigilant, and always being aware of one’s surroundings. You feel claustrophobic being around so many people in the heat. All of a sudden you hear shots ring out from the crowd as you look around to see where the threat is coming from. You notice your sergeant 50 feet in front of you on the ground with a pool of blood covering his head and face. As you approach him, you notice he was shot twice in the back of the head at close range, the shooter running away through the crowd and long gone.
Now, imagine you are a gunner in the turret of a Humvee driving in a convoy of six Humvees down a busy road in Baghdad, coming up to narrow turns, having to scan the roadside for anything that looks out of the ordinary. Among all the garbage on the side of the road, there is a good chance there is an Improvised Explosive Device (IED) waiting to go off and take out your convoy. As you scan the sides of the road, you notice an Iraqi vehicle speed up ahead of your convoy reaching the lead vehicle. As it reaches the lead vehicle there is a flash then all you hear is a loud ringing in your ears. Across the radio you hear everyone yelling the distance, direction, and description of the Vehicle Bourne Improvised Explosive Device (VBIED). As you push through the damage of the Humvee to set up security around the targeted site, you get a glimpse of the vehicle through the smoke and all you see is a few pieces of vehicle scattered throughout the road, fire, and smoke. You do not have time to grieve for your falling comrades, all you have time to do is react to the threat and move on to complete the mission. The next day is the same thing, just a new mission.

As a soldier deployed to Afghanistan, imagine working as security on the Forward Operating Base for a 12-hour shift. Then you come off shift after only four hours of sleep and as you are about to go to bed you hear thuds in the distance. Someone from your platoon runs into the tent and yells “incoming everyone into the bunker.” You don your equipment, grab your weapon, and run out of the tent as the rounds begin to impact. As you make it to the bunker, a round impacts approximately 50 feet from the bunker knocking you to the ground. As you get up, you are disorientated, your eyesight
is fuzzy, and you cannot hear anything but a loud ringing in your ears. One of your sergeants yells at you to help the medic move some wounded then go help one of the watch towers support return fire. There will be no sleep for you tonight.

These are a few scenarios of the types of combat stress one can experience in both Iraq and Afghanistan. Sometimes when soldiers undergo such stressors for prolonged periods of time, it is hard for them to return home and readjust to their old lifestyle. Understanding what resources and support our troops have from their primary care providers such as the Military/Department of Defense (DOD) social workers and the Department of Veteran Affairs (VA) is important for both the soldier and the family. Comparing the two healthcare systems helps us get a better understanding of the strengths and challenges the agencies have and to help soldiers receive benefits that best fit their needs.

**Statement of Collaboration**

This thesis project was a collaboration by Michael Molina and Fernando Ortiz. Michael was deployed to Iraq for Operation Iraqi Freedom from March 2003 to April 2004. Michael served with the 870th Military Police Company, a California Army National Guard in Iraq. During that time, Michael’s Company was stationed in Karbala, Iraq with part of the 1st Marine Division training the Iraqi Police and patrolling the streets of Karbala for the first half of his deployment. During the second half of the deployment, Michael’s Company was stationed at Abu Ghraib Prison. While at Abu Ghraib Prison, the 870th MPs were in charge of the Entry Control Points (ECPs) and provided security in
the towers. During Michael’s tour in Iraq, he experienced mortar attacks, IEDs, sniper fire, and other hostile engagements. Michael Molina authored Chapters 1, 2, and 3 of this thesis project.

Fernando Ortiz served in Iraq from March 2003 to August 2003 with the 11th Marines of the 1st Marine Division as an artilleryman and the 11th Marines Executive Officers’ driver. Fernando participated in the initial invasion of Iraq beginning in Northern Kuwait and pushing northward to Baghdad. Fernando was also stationed in Baghdad for several weeks as part of a security element patrolling the streets of Baghdad. His unit was attacked nightly by RPGs and small-arms fire while they conducted missions throughout Baghdad. Fernando Ortiz authored Chapter 4 and gathered, collected, and analyzed data for this thesis project.

Both authors witnessed soldiers become affected with symptoms of PTSD during their tours of duty. During this time, both authors also became aware of social workers and the role they played in the military. Since then, PTSD and its relevance to both the social work profession and the military have been in their thoughts. Both authors created the data extraction sheet and worked collaboratively on Chapter 5.

**Background of the Problem**

According to the VA, Operation Iraqi Freedom, Operation Enduring Freedom (OIE/OEF) veterans are defined as all soldiers that qualify as OIF/OEF veterans who had to serve on active duty in a theater of combat during a period of war after the Persian Gulf War or in combat against hostile force during a period of hostilities after November
11, 1998. “Hostilities” is defined as conflict in which service members are subject to danger; that of which is compared to the same danger a service member would be subjected to if they were in combat. Veterans who served during these engagements are eligible for hospital care, medical services for any illness, notwithstanding an insufficient medical evidence to conclude the injuries were inflicted due to such service (Department of Veterans Affairs, 2011).

Post Traumatic Stress Disorder (PTSD) is a serious problem facing today’s military veterans. According to Insel (2007), PTSD has been linked to suicide, depression, relationship problems, anxiety disorders, and substance abuse. A recent study on OIF/OEF veterans found that 25% received a mental health diagnosis, 50% of that population reported having more than one co-occurring mental health disorder. The most common mental health disorder was PTSD, affecting 13% of all veterans. In the general population, it is estimated that 75% of people diagnosed with PTSD have a co-occurring disorder, the most common of which was depression, often complicated by substance abuse (Insel, 2007). Current statistical data for substance abuse among OIF/OEF veterans with PTSD is limited. However, one study on veterans completed in 1995 found 44% of veterans with PTSD met criteria for alcohol abuse and 22% met criteria for drug abuse (Meisler, 1996).

This project will allow social workers to better understand ongoing treatments and the needs of combat soldiers diagnosed with PTSD and substance abuse. People diagnosed with PTSD and substance abuse undergo unique challenges in their recovery
and therapy. Comparing and analyzing the types of treatments the military and the VA healthcare systems are using with soldiers is important because these two agencies are on the front lines of working with soldiers. In the field, soldiers rely on one another as a type of support system. When a soldier returns home to his/her family, he/she has to learn to readjust. Many soldiers cannot turn to their family as a support system because their family cannot comprehend what the soldier has been through. There is between the military’s mission and the mission of the VA in regards to soldiers’ health.

The mission of the Veterans Health Administration (VHA) is to provide medical treatment for veterans. The mission of the military healthcare is to take care of soldiers to keep them combat-ready. The military focuses on short-term treatment and combat effectiveness. The VA focuses on long-term health and veterans’ well being after their tour of service. It is fair to say that the two healthcare systems have different philosophies in the treatment and care of soldiers and veterans. The military focuses on the mission of combat readiness while the VA focuses on the benefits veterans earn from their time of service.

It is hard for the soldier to talk to civilians about their experiences because it is hard for civilians to understand what the soldier went through. Social workers need to become culturally competent when working with combat soldiers. According to the 2006 National Association of Social Workers (NASW) Code of Ethics, social workers should be educated on social diversity and cultural competency. Learning about this population is important for social workers to develop culturally competent treatment plans. Veterans
are a culturally unique group because their experiences are so removed from other groups in vulnerable conditions. Many veterans experience the difficult transition from civilian to soldier. While in the military many experience extremely stressful and rigorous training. Also, many veterans have common experiences of the horrors of war. These experiences are what set this group apart from others. When looking at the past treatment of combat soldiers returning home from war, such as the Vietnam War, we see the mistreatment of soldiers due to lack of understanding of combat stress with co-occurring conditions such as substance abuse. We tend to blame the soldier rather than the environment the soldier had to endure when incurring their injuries (Hoge, 2010)

In the military, military social workers are attached to many units who find themselves overseas in harm’s way. U.S. military social workers provide social work support not just for soldiers, but for their families as well. They may find themselves stationed at any U.S. military base in the world, in combat zones or in overseas garrison bases. They may even be stationed in the U.S., working with stateside troops. U.S. military social workers are under the same direct commission program as doctors and nurses, which mean they do not have to go through Officer Candidate School and instead receive their commission upon a short course on military values, history, and rank structure with minimal physical fitness and war fighting (Hoge, 2010). As social workers, we need to be aware of what treatment plans are currently being used in the field and compare agency policies when addressing this problem.
Although the backbone of the military is built on strength and mental toughness, there are still some resources available to soldiers for brief counseling. Service members have options for counseling, but the resources are limited and focus on short-term issues. The plus is that many of the counseling professionals are service members themselves or have at least had some military background (Hoge, 2010). Many of the mental health clinics in the military allow people to walk in and be seen on the spot, without needing to make an appointment. This works as an advantage for the service members who are constantly on the go, in and out of deployments, as well as juggling home and professional life. Although, the military offers short-term counseling, the effectiveness has its limits. Since the military offers in and out counseling, they are more focused on acute stresses in life such as marriage or difficulties at work, not severe cases of PTSD (Hoge, 2010). There are also hotlines and websites many service members can access, but again, they are focused on acute forms of stress. In severe cases, when a service member is having suicidal or homicidal ideation, the military will escort the service member to a facility that can assist them.

The Veteran’s Affairs (VA) facilities cater to veterans who are no longer on active duty or reserve status and would benefit from medical assistance. Treatment at a VA medical facility offers the veterans more options than they would have previously had in the military. Another difference between the VA and the military social services is that at the VA counseling and treatment is encouraged. Another advantage veterans who served in war have is that they have full medical services at the VA for five years after
they depart from the military. The VA offers services to all veterans whether or not they served in a foreign country during a war. What distinguishes the VA from other facilities is that it is not focused on one issue and treatment; it has an array of health-care services that help physical and mental health problems (Hoge, 2010).

**Statement of the Research Problem**

There is limited research on treatment programs for soldiers diagnosed with both substance abuse and PTSD. In this thesis project, we explore the effectiveness of treatment programs for PTSD and substance abuse implemented for returning veterans of OIF/OEF in two different mental health systems, Department of Veteran Affairs and DOD/Military. We will be looking at secondary data to compare the effectiveness of these two departments and the treatment modalities the agencies use.

**Purpose of the Study**

This study looks at what services, treatments, and policies the VA and the military have to offer soldiers diagnosed with PTSD and co-occurring substance abuse. We analyze the two healthcare systems to see what their strengths and challenges are in providing treatment for their populations. This study also aims to educate both soldiers and family members about different services and treatments both healthcare systems offer their clients. We focus on secondary data to analyze effectiveness of treatment modalities used by the departments. Using past studies that analyze different treatment modalities used with veterans with PTSD and/or substance abuse allows us to see the effectiveness of the modalities.
The primary purpose for this thesis was to analyze the treatment modalities both the VA and the military healthcare systems use when treating veterans of OIF/OEF diagnosed with PTSD and co-occurring substance abuse. Using other studies, we explored what modalities were being used in the field. The secondary purpose for this thesis was to provide education to both civilians and military personnel about the resources the military and VA healthcare systems offer to veterans of OIF/OEF. Using secondary data from past studies, we could evaluate the effectiveness of different treatment modalities from both healthcare systems. This project was designed to help veterans, family members, and social workers see some of the treatment options being used to help understand and cope with dual diagnoses such as PTSD and substance abuse.

**Theoretical Framework**

Many of the theoretical frameworks used by the VA and the DOD/Military healthcare systems are based on the medical model. For example, from a social work perspective, PTSD is viewed as a mental health condition. Within the medical model, PTSD is a diagnosis an individual may be given and, with it, there is a treatment plan. Psychoanalytical theory is an example of a medical model theory. According to Greene (2008), through a psychoanalytical lens, good psychological health would be ideal and would focus on the use of defense mechanisms. In the combat soldier population, the focus would be on different defense mechanisms soldiers might develop due to extremely stressful situations. One defense mechanism could be substance abuse as a coping mechanism, which would be the cause and effect portion of the problem. Through
psychoanalytical theory, a social worker can evaluate whether to interpret or modify the client’s defense structures or defense mechanisms. When the client fails to use the reality principle and anxiety is experienced, unconscious defense mechanisms distort the reality. In this case, soldiers develop special defense mechanisms due to their environment (Greene, 2008).

Oftentimes, veterans report they cannot cope with the stressors that came from serving in combat and turn to alcohol and drugs. When a soldier comes home he/she may experience stress or anxiety and his/her unconscious defense mechanisms may distort reality. The soldier’s reactions to every day civilian events may seem inappropriate, such as hypervigilance when the soldier is confronted with large groups of people or loud noises. According to Hoge (2010), PTSD can be experiences of living with combat memories. These combat memories may affect how the veteran reacts to certain stressors or stimuli. For example, loud noises and large crowds can be stressful for anybody to deal with, but a veteran may have a different reaction to these stressors due to the constant alertness the veteran adapted while in combat. According to Straussner and Phillips (2004), the experience of trauma causes a change in the brain and body chemistry. The traumatic experience can change how a person perceives a threat. The social worker should become aware of these symptoms to better understand the relationship between PTSD and substance abuse as part of the soldier’s defense mechanisms.
Another theory that should be explored is the cognitive behavioral theory. According to Greene (2008), using cognitive-behavioral theory, the clinician would view the problem as the client views it. The cognitive structure provides an interpretation for the client’s reality. Cognitive behavioral theory can focus on the environmental forces surrounding soldiers on the battlefield and their personal cognitions. This is so the social worker can intervene in the client’s reality to improve upon the person-environment fit (Greene, 2008). When looking at the military and the VA’s approach to this issue, both departments use a medical model when applying treatments with people diagnosed with PTSD and/or substance abuse.

Systems theory is another theory that analyzes the individual and his/her environment (Greene, 2008). There have been some studies that analyze group therapy as being effective especially for people with drug and alcohol problems because members of the groups can share their experiences and find commonality within the group. According to Corey and Corey (2006), the purpose of the therapeutic group is to increase members’ knowledge of themselves and others, to help members clarify the changes they most want, and provide members tools they need to make these changes in their lives. The VA healthcare system utilizes the systems theory more so than the military when treating the veterans because the VA focuses on palliative care and assesses the veteran holistically. Systems theory through the military would consist of the soldier seeking help through their fellow soldiers, chain of command, and then the medical provider.
Definition of Terms

Civilians

Members of society who have no affiliation to the military.

DOD

Department of Defense.

DSM IV


FM

Field Manual

FOB

Forward Operating Base

OIF/OEF

Operation Iraqi Freedom/ Operation Enduring Freedom (Afghanistan). The VA’s definition of OIF/OEF (Operation Iraqi Freedom, Operation Enduring Freedom) consists of all soldiers that qualify as OIF/OEF veterans had to serve on active duty in a theater of combat during a period of war after the Persian Gulf War or in combat against hostile force during a period of hostilities after November 11, 1998. “Hostilities” is defined as conflict in which service members are subject to danger, that of which is compared to the same danger a service member would be subjected to if they were in combat. Veterans who served during these
engagements are eligible for hospital care, medical services for any illness, notwithstanding an insufficient medical evidence to conclude the injuries were inflicted due to such service (Department of Veterans Affairs, 2011).

PTSD:

Post Traumatic Stress Disorder as defined in the Diagnostic and Statistical Manual (DSM) Fourth Edition, Text Revised (DSM-IV-TR) (APA, 2000). PTSD is an anxiety disorder with four major criteria:

1. Exposure to or witnessing an event threatening to one’s well-being and responding with intense fear, helplessness, or horror.

2. Symptoms of re-experiencing, such as recurrent and intrusive memories, nightmares, a sense of reliving the trauma, or psychological and physiological distress when reminded of aspects of the trauma.

3. Avoidance of thoughts, feelings, or reminders of the trauma, and the inability to recall parts of the trauma, withdrawal, and emotional numbing.

4. Increase in arousal as manifested in sleep disturbance, irritability, difficulty concentrating, hypervigilance, or exaggerated startle response (Kennedy, Jaffee, Leskin, Stokes, & Fitzpatrick, 2007).

VA

Department of Veterans Affairs
VBA

Department of Veterans Affairs Benefits Administration. This department focuses primary on the veterans’ benefits such as service connection (SC), educational benefits, housing benefits, and other benefits veterans earn during their service in the military.

VHA

Department of Veterans Affairs Hospital Administration. This department consists of the VA hospital, Mental Health (MH), homeless veterans, Housing Urban Development Veterans Affairs Subsidize Housing (HUD VASH), and other hospital services.

Assumptions

This thesis demonstrates the DOD/Military and the VA healthcare systems have different missions when it comes to soldier healthcare. Both agencies will not have a clear answer to the most effective means of working with soldiers with PTSD and co-occurring substance abuse because both of these diagnoses are complex and are usually viewed as separate issues.

Justification

This thesis will benefit social workers by providing education on what services are being offered to soldiers from both the VA and the DOD/Military healthcare systems. This study may give insight into the two healthcare systems, VA and DOD/Military, that the general social work community did not already have. The goal of this project is to
educate social workers about the military population, a major problem hurting that population, and what is currently being done to treat the population by these healthcare systems who have the most contact with the population.

Limitations

In this thesis project, we look at the Military/DOD social work and the VA treatments, policies, and effective statistics of treatment plans. We use secondary data collected from peer reviewed scholarly journals and books written from experts in the field. We have taken studies that looked at these issues and analyzed the treatment modality used in the study. The treatment modalities selected with our data extracting sheet were selected as common treatments currently used in the field by social workers and psychologists. This project did not cover all treatment modalities utilized in the field.

Also, we looked at a handful of studies we felt were relevant to the treatment of OIF/OEF soldiers diagnosed with PTSD and/or Substance abuse/dependency. We did not look at other co-morbidities such as Traumatic Brain Injuries (TBI), depression, or other mental health issues associated with PTSD. The limitation of this analysis of the two departments is how they treat both PTSD and substance abuse as a dual diagnosis. This project would be stronger if a controlled study were preformed on both PTSD and substance abuse among OIF/OEFs and the effectiveness of each modality that could be used on both diagnoses. We could compare the treatments and develop a holistic treatment policy combining the findings from each individual diagnosis. Also, an individual study would have to be conducted with each modality to find out the
effectiveness of the treatment. For some of the modalities, the data collected would have to be qualitative because there is no way of measuring the effectiveness of the treatment unless it were self-reported by the subjects. In the next chapters, we cover some of the limitations this project provides in more detail.
Chapter 2
LITERATURE REVIEW

Throughout military history, combat stress has been known to affect the readiness of a fighting force. Combat stress has been called combat fatigue, shell shock, soldier’s irritable heart, nervous breakdown, and, more recently, PTSD (Pols & Oak, 2007; Sauer & Bhugra, 2001). After every war, some returning veterans have sought solace for their traumatic memories through alcohol use, but today the availability and array of substances to abuse is greater than in the past. According to the review article by Meisler (1996), studies on individuals seeking treatment for PTSD have found a high prevalence of drug and/or alcohol abuse. The coexistence of alcohol/drug abuse and PTSD are common and often co-occur amongst soldiers diagnosed with combat-related PTSD (Back, Waldrop, & Brady, 2009; Hoge, 2010; Zoricic, Kartovic, Buljan, & Marusic, 2003). The incorporation of drug and alcohol misuse into the American lifestyle is an ever-increasing problem for social work practitioners assisting veterans with regaining control of their lives. Most of the studies suggested that 60-80% of treatment seeking veterans with PTSD also met lifetime criteria for substance abuse (Meisler, 1996). This creates challenges for the treatment of soldiers with a dual diagnosis of PTSD and substance abuse (Back, 2009; Meisler, 1996).

We explored the effectiveness of treatment programs for PTSD and substance abuse implemented for returning veterans of OIF/OEF at two different healthcare systems; Department of Veteran Affairs and DOD/Military. The following themes are
analyzed in this section: the military/DOD, the VA, challenges facing both healthcare systems, and the treatment of PTSD and/or treatment of substance abuse. It is imperative to review the different treatment modalities that have been found to be effective in treating PTSD and/or substance abuse in order to generate an appropriate data extraction sheet to compare the effectiveness of the VA and military/DOD in treating PTSD with co-morbid substance abuse among OIF/OEF veterans. It is also important to understand the differences between the military/DOD and the VA in regard to their missions in the treatment of PTSD and/or substance abuse as well as the role of social work and social workers in these two medical healthcare systems. It is an overall goal of this research project for social workers to use the information gained in the study to enhance the treatments provided to OEF/OIF veterans for PTSD and/or substance abuse. These themes will serve as background information to this study and will reflect why this particular research project was conducted.

**Military/DOD**

**History**

During World War I, Red Cross social workers worked with the military as psychiatric social workers. Due to the success of the psychiatric social workers, Red Cross social workers were later assigned to the hospitals (Daley, 1999; Simmons & Decoster, 2007). It was shortly after World War II that the military had psychiatric social workers assigned to military units for the first time. Their roles consisted of performing case work under the supervision of a psychiatrist, performing initial interviews with
patients, maintaining case histories of the patients, discharge planning, and helping participate in the diagnosis and treatment of soldiers (Daley, 1999). In 1943, the Army designated psychiatric social work as a separate job in the military and appointed the first social work consultant to the Surgeon General of the Army (Daley, 1999; Simmons & Raycraft, 2010). Military social work practices have evolved today into a career choice for master’s trained social workers (MSW). Currently, military social workers’ roles involve working in areas such as domestic violence, substance abuse, medical social work, family support, and both inpatient and outpatient mental health, and all military social workers prepare to work in wartime situations (Simmons & Rycraft, 2010).

Mission

The mission of the military is very different than the mission of the VA when looking at treatment plans. The mission of leaders in the military is to prevent, reduce, identify, and treat combat stress for service members to prolong combat effectiveness of the service member (Department of the Army, 2000). Military social workers need to weigh the needs of the client versus the needs of the unit/military and their wartime mission (Simmons & Rycraft, 2010). One of the constraints the military has is the duration of the treatment. If a soldier is injured, the military has an obligation to help that soldier so he/she can continue on the mission. If the soldier’s injuries are too severe or require long-term treatments, the military will medically discharge the soldier because he/she will be a liability to the military. The military only has the power to identify and produce some treatment; whatever the military cannot provide they will recommend the
soldier seek treatment from outside sources such as the VA. Unlike the National Association of Social Workers (NASW), the military adheres to the Uniform Code of Military Justice, where the needs of the individual do not outweigh the needs of the military mission and the overall military readiness of our fighting force (Department of the Army, 2000; Kline et al., 2010; Simmons, 2007). Back et al. (2009) conducted a study on the challenges of treatment associated with co morbid substance abuse and PTSD. The study found the most common challenge associated with substance abuse and PTSD is how to prioritize and integrate treatment components.

Some of the challenges the military faces are developing programs for these complicated issues while completing the mission. In the 1980s, the military made strides in developing programs to identify these problems and address treatment for them. For example, the military recognized that physical training could benefit soldiers in a number of ways. Physical training is used in the military to keep soldiers in shape for combat, promote health, and sustain military readiness. The military also has been implementing training for soldiers to lead healthier lifestyles and now also recognizes that physical training can be used as a type of therapy to prevent combat stress (Bray et al., 2010, Otatti & Ferraro, 2009). Due to the prevalence of PTSD among soldiers, the military has also been developing screening programs for PTSD and funding programs for treatment (McLay, McBrien, Wiederhold, & Wiederhold, 2010). Recently, exposure therapy and virtual reality simulations have been found to be effective means of treatment while
soldiers remain in theater (Cigrang, 2005; McLay et al., 2010). However, ethical concerns for social workers in the military remain.

**Ethical Concerns for Social Workers**

There is a growing body of research exploring ethical issues for military social workers who provided services for soldiers in combat zones (Henderson, 2007; Simmons & Decoster, 2007; Simmons & Rycraft, 2010). The qualitative studies looked at the social worker education and the ethical challenges they met while working in a combat environment and within the constraints of the military.

The U.S. Army has been transforming to meet the needs of their soldiers. The Army Care Manager Program (CMP) was initiated in 2003 with the purpose of providing mental health support for combat veterans and their families (Henderson, 2007). Henderson conducted an assessment of the CMP by looking at reports from the Care Managers (CMs). CMs consisted of social workers given a year contract to work on various military instillations to enhance services for deploying soldiers and their families. The assessment looked at the CMs perceptions of their jobs through a survey that covered several areas such as job satisfaction, resources, supervision, and training (Henderson, 2007). The CMP assessment was found to be relevant to the Army medical services and social work because it provided initial information for research, evaluation, and development of the program. Henderson found that out of 60 CMs, 33 (N=33) participated in the survey with a 75.8% positive response rate that their duties accurately matched the needs of the soldiers.
Another study, conducted by Simmons and Rycraft (2010), looked at the ethical challenges of military social workers serving in combat. Once again, this study was a qualitative study that looked at ethical concerns of military social workers. The purpose of the study was to look at how military social workers dealt with ethical concerns meeting the client’s needs and the needs of the military mission. This qualitative study involved 24 military social workers deployed to OIF addressing ethical dilemmas that dealt with the needs of the soldiers’/clients’ and their units needs. When addressing the ethical dilemma of meeting the needs of the client versus the needs of the unit, the study found that the answers to that open-ended question could be grouped in four cluster solutions the authors labeled as prioritized assessment, problem-focused intervention, mission oriented, and not applicable.

The prioritized assessment cluster included answers that indicated participants would analytically work through a problem before taking action; 50% of the social workers’ responses fell into this category. The problem-focused intervention cluster included answers indicating that the participant would work with clients and help them deal with their concerns while keeping them in theater; more than a third of the social workers’ responses fit into this category. The mission-oriented cluster included statements that indicated the participant would focus on the mission, reminding clients they voluntarily signed up for military service; 17% of the social workers’ responses fit into this category.
The study also found that the social workers dealt with the following ethical concerns: confidentiality and privacy issues (46%), conflicts with commanders (21%), relationships and boundaries (21%), diagnosis and treatment (21%), and no ethical dilemmas (21%). This study found military social workers make up a unique subgroup of the social work profession that meets ethical challenges, such as meeting the needs of their military member clients while meeting the greater need of the military combat mission (Simmons & Rycraft, 2010).

It is also important for social workers to be able to meet the unique needs of the military population. Simmons and Decoster (2007) conducted a study that looked at deployed social workers in the military and the education and training they felt was the most useful when working with soldiers in a combat zone. The study consisted of 30 military social workers deployed at OIF and the training they found most valuable for their mission. Out of the 30, of which 24 participated, the MSW courses they found to be the most useful on deployment consisted of mental health practice (n=17), group practice (n=15), and substance abuse practice (n=13) (Simmons & Decoster 2007).

**The Department of Veteran Affairs (VA)**

**History**

In 1926, the social services department was first established by the Veterans Bureau Order by hiring 36 social workers. The role of these hospital social workers was to assist the medical officer with inpatient social problems. Their duties consisted of obtaining social histories, solving social problems, investigating the home environment,
working with the Guardianship Officer to oversee patients deemed incompetent, and working with social services within the communities to provide aide to the veterans (Black, 1926; Manske, 2006). Today the Department of Veterans affair is the largest employer of professional social workers (Rathbone-McCuan, Harbert, & Fulton, 1991). The roles of social workers in the VA today consist of working with the following departments: healthcare for homeless vets, domiciliary care, physical and rehabilitation services, geriatrics and extended care, substance abuse, spinal cord injury, PTSD, mental health, etc. (Department of Veterans Affairs, n.d.).

The VA has a long history of providing medical and psychosocial care to veterans. Throughout the history of the VA there had been many changes to the social work profession within the VA (Manske, 2006). From generation to generation, the needs of the soldiers vary so the VA has to be able to meet those needs. A major challenge for the VA is keeping up with the needs of the soldiers while providing services our troops deserve.

The VA conducts a yearly Analysis of Unique Benefits and Services. This analysis is created by the National Center for Veterans Analysis and Statistics Office of Policy and Planning. The objective of the report is to determine the number of veterans receiving VA benefits. Within the report, there is a specific section that analysis OEF/OIF Veterans receiving VA benefits and services. Fifty-two percent of living OEF/OIF veterans received VA benefits and services in fiscal year 2008 (National Center for Veterans Analysis and Statistics Office of Policy and Planning, 2009). Fifty-six
percent of OIF/OEF vets using VA benefits only used one program from the VA while 44% of the vets using VA benefits used multiple programs in the VA. The 52% of living OEF/OIF veterans receiving VA benefits used the programs as follows: health (19%), loan guaranty (13%), education (12%), compensation (9%), insurance (2%), burial services (less than 1%), vocational rehab (less than 1%), pension (less than 1%), and multiple VA programs (44%) (National Center for Veterans Analysis and Statistics Office of Policy and Planning, 2009). The report does not show the percentage of the specific health services used by veterans.

**Mission**

Unlike the military’s, the VA’s mission is very different. The VA’s mission is “To fulfill President Lincoln's promise ‘To care for him who shall have borne the battle, and for his widow, and his orphan’ by serving and honoring the men and women who are America’s veterans” (Department of Veterans Affairs, 2010a, para. 1). Similarly, the VA’s vision is “To provide veterans the world-class benefits and services they have earned - and to do so by adhering to the highest standards of compassion, commitment, excellence, professionalism, integrity, accountability, and stewardship” (Department of Veterans Affairs, 2010a, para. 2).

Some of the challenges and strengths of the VA consist of the number of caseloads, proof or documentation of service for soldiers, and the stigma of military personnel seeking medical treatment. Some of the strengths of the VA are openness to treatment, major healthcare providers, and accessibility to resources. When clients are
diagnosed with PTSD and have had or are having problems with drugs and/or alcohol, they should discuss it with their therapists to come up with a treatment plan (National Center for PTSD, 2010). The VA and the National Center for PTSD recognize treatment for polytraumatic injuries involves comprehensive and coordinated rehabilitation (Manske, 2006).

Another advantage the VA recently added to its facilities is the National Polytrauma System of Care (NPSC). Since this system is new, there are only four located in the United States, but its services adds another resource for those individual veterans dealing with more than just one issue. Veterans who have recently come back from Iraq or Afghanistan and need further individual attention can go there. An array of medical professionals can assist veterans on multiple levels and they “provide acute, inpatient treatment, and consultation for professionals at other facilities within the NPSC” (Burke, Olney, & Degeneffe, 2009, p. 9).

**Challenges Facing Both the VA and Military**

There are several different stigmas within the military culture about soldiers receiving mental health services. Some of the stigmas include the public stigma of how other people view individuals with mental illnesses, the “self-stigma” of how the individual internalizes their own beliefs and how they perceive others see them and themselves as a warrior, and the “structural stigma” of how being part of a treatment program could affect the possibilities for future employment (Hoge, 2010; Lunasco,
Goodwin, Ozanian, & Loflin, 2010; Ottati & Ferraro, 2009). The military culture can be a challenge for soldiers to come forward to admit they need help.

One of the major challenges both the VA and the military dealt with was the stigma of soldiers seeking help for mental health illnesses and other co-morbidities. Wilson, Onorati, Mishkind, Reger, and Gahm (2008) recognized that soldiers were confronted with unique barriers when seeking help for mental health conditions. Wilson et al. (2008) conducted a study about the attitudes soldiers had towards using technology-based approaches for seeking treatment. In the study, they found 33% of soldiers were not willing to talk face-to-face with a therapist and would not pursue traditional means for therapy but would use one of the 11 types of technology used in the study.

The 11 types of technology consisted of therapy contact alternatives such as e-mail, live chat, phone, text messaging, and video teleconference, alternative therapy programs, internet, home computer, handheld devices, information access, accessing online, responding to anonymous questions online, and virtual reality (Wilson et al., 2008). This study was conducted on active service members that still served in the military after returning from deployments to OIF/OEF. This study provided results that suggest the soldiers not willing to talk to a therapist were willing to try one of the 11 types of technology to seek help and treatment. It does not eliminate the stigma for soldiers, but does allow for a different opportunity to provide help to those who are not willing to try traditional means.
Another challenge both agencies have to face is the accessibility of illicit substances the clients can obtain. The military is a fairly controlled environment where inspections of soldiers are conducted regularly. Lacy and Ditzler (2007) sought to inform care providers about inhalant abuse in the active duty population through their review article. Inhalant abuse is frequently under-recognized by care providers for the following factors; high availability, low cost, lack of drug screening and drug treatment programs, and frequent misdiagnosis by clinicians. The past 30-day use of drugs such as marijuana, cocaine, and amphetamines is substantially lower in the active duty military population than with civilians. It is important to be aware of all possible substances that can be abused when performing research for implementing treatment plans. The Department of Veteran Affairs has partnered with National Institutes of Health to conduct research on the link between substance abuse and combat-related trauma (Department of Veterans Affairs, 2010b). This research looks at treatment strategies and treatment seeking patterns.

**Treatment for PTSD and/or Substance Abuse**

Frueh et al. (2000) conducted research on the differentiation of depression and PTSD symptoms in combat veterans. There was an over reporting phenomenon of symptoms among combat veterans. The research was to develop a homogenous clinical sample test that combined anxiety style questions and depression questions to see if there was a distinction between the two. The results found that there was partial distinction of the self-reported symptoms of PTSD and depression. The reason for the over reporting
response style could be the incentives (Frueh et al., 2000). It is important as clinicians to create a distinction between depression and PTSD to develop effective treatments and for research purposes.

According to a review article by Meisler (1996), studies on individuals seeking treatment for PTSD have found a high prevalence of drug and/or alcohol abuse. The studies mentioned in the review article were consistent with the discovery of the relationship between substance abuse and combat-related PTSD among Vietnam Veterans. Some studies suggested 60-80% of treatment-seeking veterans with PTSD also met lifetime criteria for substance abuse (Meisler, 1996; Ottati & Ferraro, 2009). The self-reported rates of PTSD and/or symptoms of depression is in approximately 10 to 44% of veterans returning from OIF/OEF (Baker et al., 2009).

**Exposure Therapy**

A study was conducted on virtual reality exposure therapy on soldiers who returned from Iraq with PTSD using a virtual Iraq case report (Gerardi, Rothbaum, Ressler, Heekin, & Rizzo, 2008). Soldiers in the Army are trained to prepare for battle using simulation programs that simulate a battle scenario where the soldiers are actively engaged in a virtual reality program. This training elicits fear and stress to mimic the battlefield so the soldier experiences these emotions in a controlled environment in the hopes that the soldier is better equipped for the live battlefield. The Gerardi et al. (2008) study took the theory of exposure therapy using virtual reality. Exposure therapy is a type of cognitive behavioral therapy, which can be very effective when dealing with
combat-related PTSD (Ottati & Ferraro, 2009). The idea is to immerse the client into an environment that gives the client the sense of fear in a controlled environment so the client can emotionally process fear and diminish some anxieties. The results from the study found that the exposure treatment resulted in a drop in clients’ self-reported PTSD symptoms. Although the clients still met the criteria for PTSD diagnosis, they reported improvement in relationships, concentration at work, ability to identify trauma, and a decrease in avoidance with friends (Gerardi et al., 2008).

Recently, a study found that exposure therapy and virtual reality therapy treatments showed significant gains in treating OEF/OIF veterans for their PTSD symptoms while in theater. However, the study population was small with six patients being treated with virtual reality simulations and four treated with traditional exposure therapy. Five out of the six patients treated with virtual reality simulations no longer met DSM criteria for PTSD and, on average, patients experienced a 67% decrease in symptoms. All four patients treated with exposure therapy also no longer met DSM criteria for PTSD, with a 74% decrease in symptoms (McLay, 2010).

**Pharmacological Interventions**

Some of the past trends of treating of PTSD included the use of many different types of drugs to dissipate the symptoms of PTSD. Some of the most common drugs used for interventions were antidepressants. Pharmacological interventions are usually short-term and many times people will take illicit drugs in conjunction with or in lieu of prescription drugs to “self medicate” (Sauer & Bhugra, 2001; Zoricic et al., 2003). Some
symptoms of PTSD can get worse with the use of illicit drugs and alcohol, for example, numbing of feelings in the client, social isolation (being cut off from others), irritability, depression, hypervigilance, anger, and aggression (National Center for PTSD, 2010; Zoricic et al., 2003).

According to Sauer and Bhugra (2001), the treatment of PTSD with pharmacological interventions can lead to improvement. In this review of different medications, Sauer came to the conclusion that both pharmacological intervention and psychotherapy played an important role in the treatment of PTSD. Most of the data on the effect of different medication treatments is sparse and the evidence is subjective. Tricyclic antidepressants, one of the first types of medication used to treat PTSD, were shown to be more effective than a placebo and helped with the avoidant symptoms, but the trend of using this medication has diminished because there are more effective medications in treating PTSD (Ottati & Ferraro, 2009; Sauer & Bhugra 2001). Monoamine oxidase inhibitors (MAOIs) helped improve the re-experiencing and some avoidance symptoms of PTSD, but have not shown significant evidence that this medication is effective with anxiety or panic symptoms. They have also been shown to have significant side effects on those who misuse drugs and alcohol and other adverse side effects (Otatti & Ferraro, 2009; Sauer & Bhugra 2001). Selective serotonin reuptake inhibitors (SSRIs) have fewer adverse effects, have been found useful when treating many co-morbid psychiatric disorders, and are considered to be highly effective in treating PTSD (Ottati & Ferraro, 2009; Sauer & Bhugra, 2001).
Trazodone has sedative properties and helps with the improvement of sleep, but has shown little effect on other symptoms of PTSD. Nefazodone had been shown to improve sleep and reduce anger. It has also been shown to have an effect on other symptoms like intrusive thoughts, avoidance/numbing, and hyperarousal. Venlafaxine is reported to be effective with subjects not responding to other antidepressants. There are very few studies that show mood stabilizers being used in the treatment of PTSD, although there is a small study that showed the properties from these drugs can be of benefit in PTSD. Anxiolytics may be helpful with anxiety. Benzodiazepines had helped with anxiety, sleep, and agitation, but there is no evidence that showed an effect with other symptoms like avoidance, re-experiencing, and numbing. Buspirone had been used in the short-term treatment of anxiety, although there is little evidence to show significant effects on PTSD (Sauer & Bhugra, 2001).

**Psychological Therapy/ Counseling**

Psychological Therapy or psychosocial treatments have been shown to be the most effective in reducing PTSD symptoms (Tiet et al., 2006). In Tiet et al.’s study, they looked at the relationship between coping skills and PTSD symptoms among patients receiving services in the VA. This study measured the relationship between PTSD symptoms and coping by breaking down the symptoms into two groups, cognitive avoidance and behavior avoidance. This study completed follow up with 178 out of 265 patients for a two-month period. The results from this study found that when special coping skills were adapted to specific symptoms, there was good evidence that the
symptom would show improvement. They also found that certain modalities such as one-on-one therapy and couples therapy were effective with treatment. One modality mentioned as being effective with PTSD and substance abuse was “Seeking Safety” psychotherapy for co-morbid PTSD substance and substance abuse.

In Norman, Wilkins, Tapert, Lang, and Najavits (2010), seeking safety was the only model for treating PTSD and substance abuse that was an effective therapy. Seeking Safety is group counseling that involves 25 modules that help vets deal with PTSD and substance abuse. This was a pilot study conducted with 18 veterans ages 41-59 (not OIF/OEF veterans) who completed Seeking Safety and reported their symptoms of PTSD had reduced. This study was used as a preliminary study for a future Seeking Safety program for OIF/OEF veterans in the VA system. Due to the small sample size the data was based on an individual case-by-case basis to test effectiveness of this program. A conclusion was established that 10 sessions could help OIF/OEF veterans cope with PTSD symptoms while helping with substance use as well (Norman et al., 2010). The modality used in this program was group counseling.

**Resource Education/ Case Management**

The encouragement and education of resources in the community had been a benefit to the Seeking Safety group process (Norman et al., 2010). As part of the social workers’ responsibilities in the VA case management, education and social services are all part of the treatment plans created for all OIF/OEF veterans (Department of Veterans Affairs, 2010c). In the military, the Family Readiness Program was created to help
soldiers and their families find support systems, resources, and educate themselves on benefits for soldiers deployed and their families back home (Army FRG, n.d.).

**Other Interventions**

Ottati and Ferraro’s (2009) study examines combat-related PTSD and treatment with the use of exercise therapy as compared to traditional PTSD treatments. Ottati and Ferraro (2009) proposed that current PTSD treatments are limited in their use with the military because the treatments include long-term psychological interventions; side effects of medical interventions; mental stigma within military culture; and administration time, resources, and costs of a large population such as combat soldiers. Aerobic exercise has been shown to improve mood, reduce anxiety, and improve psychological well-being. A study by Blumenthal and Babyak (1999) found that exercise therapy and medication therapy had an equal level of improvement for depressive symptoms (Ottati & Ferraro, 2009). Ottati and Ferraro argue that exercise therapy may be a cheap and effective modality when treating combat-related PTSD, and it should be further investigated as a treatment option for those suffering from combat-related PTSD. Exercise therapy is also less pathologized by the military culture because physical training is already a big part of military culture (Ottati & Ferraro, 2009).

**Summary**

Clearly, it is important to acknowledge the different missions these two healthcare systems have when working with OIF/OEF veterans. It is important to acknowledge the needs of the military mission and how it is balanced with the social work *Code of Ethics*
(National Association of Social Workers [NASW], 2006) when treating veterans who still serve in the military (Simmons & Rycraft, 2010). As stated above, throughout military history, combat stress has had an impact on the readiness of the soldiers experiencing multiple deployments and the effectiveness of the troops on the field. Assessing different treatments gives social workers insight into what treatments appear to be the most effective when working with these veterans. Also, assessments can help the medical profession develop holistic care for veterans dual diagnosed with PTSD and substance abuse/dependency. The treatment modalities looked at in this thesis are just examples of different treatments used for PTSD and substance abuse. In the social work profession, a need for evidence-based practice has formed within the medical field. Such modalities as exposure therapy, cognitive behavioral therapy, and medication interventions have more studies conducted because the modalities are measurable. The measurable modalities can provide solid evidence of the modality’s effectiveness in treatment. In the VA, social work has experienced a “rebirth” with regard to the role they play with care coordination for veterans returning from OIF/OEF (Manske, 2006).
Chapter 3

METHODS

The purpose of this study was to evaluate and analyze studies that examined different modalities used for treating soldiers/veterans from OIF/OEF diagnosed with PTSD and/or substance abuse. The studies selected for this thesis are geared towards Military/DOD to Department and Veteran Affair healthcare systems dealing with OIF/OEF veterans diagnosed with PTSD and co-occurring substance abuse. In this section we explore unit of analysis, type of data and measures, data sources, sampling design, sample size, and analytical approaches. The purpose of this section was to test the research question through a measurement instrument. In this case, we used secondary analysis of existing data to conduct a critical analysis of different treatment modalities the VA and Military/DOD healthcare systems use.

Unit of Analysis

The major entity being analyzed in this thesis project were the different modalities being implemented by the DOD/Military and the VA healthcare systems to treat PTSD with co-occurring substance abuse.

Sampling Design and Sample Size

This was a convenience sampling of 18 studies selected by the second author (Fernando Ortiz). These studies were selected due to the appropriateness of their findings in conjunction with the data extraction sheet created for this thesis. The data extraction sheet was created in collaboration between the authors of this thesis to analyze common
social work treatment modalities that can be found in any healthcare system (see Appendix). The 18 studies were systematically reviewed using the data extraction sheet.

Data Sources

The sources of secondary data consisted of peer-reviewed journals and studies conducted by the Department of Veteran Affairs, Department of Defense, and the U.S. military. All secondary data was obtained from public domains. A literature search was conducted for the 18 articles. The search engine used was EBSCO Host in the California State University Library database, which was used to identify appropriate articles for this thesis. Combinations of the following words were used in the finding of the articles: military, veterans, Department of Defense, Department of Veterans Affairs, PTSD, substance abuse, modalities, OIF, OEF, social work services, exposure therapy, group therapy, psychotherapy, and co-morbidity. The data used for this study consisted of program evaluation data and program participation data. The secondary data was also collected through public domains found on the internet. The data does not contain any personal identifiers to ensure subject confidentiality and anonymity.

Analytical Approaches

The data extraction sheet was a tool used for deductive analysis of the 18 studies. The purpose of the data extraction sheet was to answer the question “What services could be offered from the VA and the DOD/Military to soldiers coming home from Iraq and Afghanistan with dual diagnoses?” By looking at the studies conducted, we got an idea of what services were effective and which organization the services would be most
appropriate for. We pooled together information from several studies about different
treatment policies, interventions, and other services currently being analyzed for the VA
and the DOD/Military. This study was not trying to answer which organization was
better equipped for handling the problem; rather, this study was merely looking at what
information was already produced, and data was collected on how the different
organizations address the problem. This project is designed to help soldiers, family
members, and professionals look at treatment and the issues as a process. When we look
at past studies we can see if the study was successful or not, and we can analyze the
findings of each study to assess for future treatments.

**Type of Data and Measures**

The data extraction sheet contained different items of quantitative data. The main
focus of the data extraction sheet was to systematically analyze what modalities were
used in the studies and what organizations were addressed in the study. On the data
extraction sheet, the article title and the author of the article are on the first boxes. This is
critical information for looking at the different articles used in this thesis. This
information also gives credit to the authors of the articles used in this study. In the next
box, the following information entered was the type of publication and the publication
year. This was important to our study because the type of publication showed at what
level the study was conducted. These were the types of publications analyzed for this
thesis: peer-reviewed journals, unpublished reports, dissertations, and other. The
publication year helped gauge when the journal was written and if it was written during
the timeline for OIF/OEF. All the studies used were required to be written during the time of OIF/OEF, or from 2001 to present.

In the next section of the data extraction sheet, the gender of the subjects in each study was analyzed. This information was used to see what percentage of each gender was used in the studies and whether it was more one-sided with males than females or vice-versa. This information also showed the difference in populations within the military. After the gender section of the data extraction sheet, the age groups of the populations used in the studies were recorded. An average of the age scales used in the studies was annotated in the data extraction sheet. This is important because in the military there is an age requirement. Although America has been in these wars for several years, the age of the veterans may vary depending on the age of the study. The age range reported in the studies was taken into consideration with the population being analyzed for this thesis.

On the data extraction sheet, the next section is a list of different modalities created by the authors of this thesis. These modalities are common modalities used in any healthcare system. The list of modalities was not created by the findings of the studies analyzed. The different modalities used in the data extraction sheet consisted of Exposure Therapy/Cognitive-Behavior Therapy, group therapy, substance-abuse counseling, one-on-one therapy (individual counseling), resource education, case management, family interventions, reintegration services, medication treatment, and Chaplin services/crisis intervention. The treatment modalities where chosen because they
are very common practices when working with people diagnosed with PTSD and/or substance abuse. After a study was analyzed, the modality mentioned in the study was imputed on the data sheet and percentages of the authors’ findings were annotated in the Findings section, Chapter 4 of this thesis.

In the next section of the data extraction sheet, there are two boxes labeled VA and Military/DOD, which labeled which organization the article addressed. This section was important to understand what healthcare system used the different modalities listed above. This section allowed for a comparison of the two healthcare systems and the level of treatment they can offer to the veterans. Although the main purpose of this thesis is not a comparison of the two healthcare systems, this section allows for some clarity of some of the services provided by both agencies.

**Protection of Human Subjects**

Since this study consisted of secondary data there were no human subjects that directly participated in this study. Therefore, when this study was submitted to the Protocol for the Protection of Human Subjects, the University approved this study as exempt research with approval number 10-11-062. As exempt research, all the studies we analyzed had no personal identifiers used. All participants were kept anonymous and confidential. All the studies used in this project can be found on the internet and in library archives.
Chapter 4

FINDINGS

Demographics and Variables Analyzed

This study was conducted using and analyzing secondary data and, therefore, did not use human subjects. The subjects used for the study came from previous research conducted by the Department of Defense, Department of Veterans Affairs, and other outside agencies related to the study. The subjects were either active duty in the military, in the reserves, or on veteran status at the time the study was conducted. The subjects involved all served in support of Operation Iraqi Freedom or Operation Enduring Freedom, Iraq or Afghanistan from March 19, 2003 to 2010. All subjects were deployed to Iraq and/or Afghanistan at least once and some made multiple deployments to one or both areas of combat operations. The research analyzed for this study explored studies conducted between 2005 and 2010. The subjects involved held different levels of rank in the military, from E-1 (Private) to O-1 (Officer in the military). The age group involved in the studies was 18-62 years of age.

Other major variables analyzed were whether subjects had any pre-existing medical, mental, or substance abuse history exacerbated by their deployment to either Iraq or Afghanistan. Of primary interest was the interaction between substance abuse and Post Traumatic Stress Disorder.

Other variables explored were the modalities used by the different government agencies. The study explored the different treatments included by both the military/DOD
and Department of Veterans Affairs. The treatments included the following modalities: Exposure therapy/Cognitive-Behavior Therapy, Group Therapy, Substance-Abuse Counseling, One-on-One Therapy, Resource Education, Case Management, Family Interventions, Reintegration Services, Medication Treatment, and Chaplin Services/Crisis Intervention. This study explored the effectiveness of the different modalities used by the military/DOD and Department of Veterans Affairs.

Results of Variables Analyzed

Modalities

The data gathered illustrated that both the Department of Veterans Affairs and Department of Defense used exposure therapy alone as the most common modality used for treatment of Post Traumatic Stress Disorder (PTSD) with or without the dual diagnosis of substance abuse. Of all the data collected for this study, 49.9% involved exposure therapy as the modality used by the Department of Veterans Affairs and Department of Defense to treat PTSD with or without the dual diagnosis of substance abuse. The Department of Veterans Affairs used exposure therapy alone 33.3% of the time to treat OIF/OEF Veterans diagnosed with PTSD with or without the dual diagnosis of substance abuse. The Department of Defense used exposure therapy alone 16.6% of the time to treat OIF/OEF Veterans diagnosed with PTSD with or without the dual diagnosis of substance abuse.

The other 50% of the data collected involved the Department of Veterans Affairs, Department of Defense, and other agencies using other modalities to treat veterans with
PTSD with or without the dual diagnosis of substance abuse. Other modalities used by the Department of Defense and Department of Veterans Affairs were group therapy, substance-abuse counseling, one-on-one therapy, resource education, case management, family interventions, reintegration services, medication treatment, Chaplin services, exercise therapy, and Eye Movement Desensitization Reprocessing (EMDR). The other modalities used to treat PTSD with or without the dual diagnosis of substance abuse were as follows: group therapy at 13%, substance-abuse counseling at 8%, one-on-one therapy at 17%, resource education at 13%, case management at 8%, family interventions at 4%, reintegration services at 8%, medication treatment at 12%, Chaplin services at 4%, exercise therapy at 4%, EMDR 4%, and telemental health at 4% (see Figure 1).

Figure 1. Other modalities used to treat PTSD with or without the dual diagnosis of substance abuse.
According to the study, when treating PTSD with the dual diagnosis of substance abuse, the Department of Veterans Affairs used four modalities for treatment. These modalities are group therapy, substance-abuse counseling, one-on-one therapy, and resource education. The modalities used by the Department of Veterans Affairs to treat PTSD with the dual diagnosis of substance abuse were equally distributed between the four. Therefore, each modality was used by the Department of Veterans Affairs 25% of the time when an OIF/OEF Veteran received treatment for PTSD with the dual diagnosis of substance abuse. The following is a breakdown in percentages of the modalities used by the Department of Veterans Affairs to treat PTSD with the dual diagnosis of substance abuse: group therapy at 25%, substance-abuse counseling at 25%, one-on-one counseling at 25%, and resource education at 25% (see Figure 2).

Figure 2. Modalities used by the Department of Veterans Affairs to treat Post Traumatic Stress Disorder with the dual diagnosis of substance abuse.
After analyzing studies conducted by the Department of Defense, it was found that it used a more diverse use of modalities to treat PTSD with the dual diagnosis of substance abuse. The Department of Defense appears to have taken an eclectic approach to treating PTSD with the dual diagnosis of substance abuse. There was no single profound modality favored over any other or a modality that showed significant results. The modalities used by the Department of Defense in treatment of PTSD with the dual diagnosis of substance abuse were the following: exposure therapy, group therapy, substance-abuse counseling, one-on-one therapy, resource education, case management, family interventions, reintegration services, medication treatment, and Chaplin services. The following is a breakdown in percentages of their use within the Department of Defense to treat PTSD with the dual diagnosis of substance abuse: exposure therapy (also includes cognitive-behavioral therapy) at 10%, group therapy at 10%, substance-abuse counseling at 10%, one-on-one therapy at 10%, resource education at 10%, case management at 10%, family interventions at 10%, reintegration services at 10%, medication treatment at 10% and Chaplin services (also includes crisis intervention) at 10% (see Figure 3).
Figure 3. Modalities used by the Department of Defense to treat Post Traumatic Stress Disorder with the dual diagnosis of substance abuse.

**Gender**

The studies conducted by the Department of Veterans Affairs and the Department of Defense to treat PTSD with or without the dual diagnosis of substance abuse used both male and females in their studies. Only one study involved strictly males and that was a case study conducted by the Department of Defense. In studies conducted by both agencies, male and female subjects were used together 90% of the time. The other 10% involved strictly males in a case study on which both the Department of Defense and Veterans Affairs collaborated.

In isolation, the Department of Veterans Affairs study to treat PTSD with/without the dual diagnosis of substance abuse used both female and male subjects in their study 90% of the time and used strictly male subjects 10% of the time. The male-only subject
was used in a collaboration effort between the Department of Defense and Department of Veterans Affairs in a case study. It is to be noted that both male and female subjects volunteered in one or multiple modalities.

In isolation, the Department of Defense study to treat PTSD with/without the dual diagnosis of substance abuse used both female and male subjects in the study 78% of the time. In two cases, or 22% of the time, the Department of Defense used strictly male subjects. In one of the studies in which only a male subject was present, the Department of Defense collaborated with the Department of Veterans Affairs. The other study conducted by the Department of Defense alone consisted of one male subject. It is to be noted that both male and female subjects volunteered in one or multiple modalities.

Both the Department of Defense and Department of Veterans Affairs participated in studies to treat PTSD with the dual diagnosis of substance abuse. In those studies conducted by the Department of Defense, the studies all involved the use of both male and female subjects. Therefore, 100% of participants involved in the studies to treat PTSD with the dual diagnosis of substance abuse within the Department of Defense. In regard of the Department of Veterans Affairs, 100% of their study subjects involved both male and female subjects.

**Dates of Studies**

Operation Enduring Freedom began in 2001 and by March 2003, Operation Iraqi Freedom commenced. To the present day, the United States has forces in Iraq and Afghanistan. Studies are still being conducted today to treat OEF/OIF veterans with
PTSD and the dual diagnosis of substance abuse. The studies gathered for this study were studies conducted by the Department of Veterans Affairs and Department of Defense from 2005 to 2010. Only one study was used that conducted research prior to 2005 and that was a 28-year-old study that commenced in 1980 and finished in 2008. One of the studies gathered for the purpose of this study was from 2005. Four studies gathered for this study were conducted in 2008. Four studies were from 2009. The majority of the studies gathered for the purpose of this study were eight studies conducted in 2010.

In 2005, the study reviewed for this study used both male and female subjects. The study conducted in 2005 was a study conducted by the Department of Veterans Affairs and used such modalities as exposure therapy/cognitive-behavior therapy, group therapy, one-on-one therapy, case management, medication treatment, and EMDR. In 2008, the Department of Defense and Department of Veterans Affairs conducted several studies treating OEF/OIF veterans. Also in 2008, the two departments conducted half the studies using strictly males and the other half using both male and females. The studies conducted in 2008 used such modalities such as exposure therapy, cognitive-behavioral therapy, one-on-one therapy, and resource education.

In 2009, the Department of Defense and Department of Veterans Affairs continued its studies researching treatment for OEF/OIF veterans with or without the dual diagnosis of substance abuse. In 2009, all studies conducted by the Department of Veterans Affairs and the Department of Defense used both male and female participants
in every study. The studies conducted by the Department of Veterans Affairs and the Department of Defense used modalities such as exposure therapy, cognitive-behavior therapy, and telemental health.

In 2010, the Department of Defense and the Department of Veterans Affairs conducted further studies studying the treatment of OEF/OIF veterans with PTSD with/without the dual diagnosis of substance abuse. In 2010 both departments studied the following modalities: reintegration services, exposure therapy, cognitive-behavior therapy, group therapy, substance-abuse counseling, one-on-one therapy, resource education, case management, family interventions, reintegration services, medication treatment and Chaplin Services/crisis intervention.

**Ages in Studies**

In analyzing the Department of Defense and Department of Veterans Affairs studies conducted for the treatment of PTSD with/without the dual diagnosis of substance abuse, the ages ranged from 17 years old (earliest accepted age into the military with parental consent) to the age of 62. The average age of subjects in the studies conducted by both departments are as listed: 53 years, 40 years, 39 years, 40 years, 39 years, 40 years, 30 years, 29 years and 33 years. The average age of all the studies conducted by both departments was 38 years of age. It should be noted that some studies gathered for the purpose of this study did not disclose age or group of ages in their studies.

When analyzing the Department of Veterans Affairs in isolation with regard to treatment of PTSD with/without the dual diagnosis of substance abuse, the age range of
subjects was 18 to 62 years of age. The average age of subjects in each of the studies conducted by the Department of Veterans Affairs in treatment of PTSD with/without the dual diagnosis of substance abuse are as follows: 53 years, 40 years, 39 years, 40 years and 29 years. The average age of the subjects in the studies conducted by the Department of Veterans Affairs in treatment of PTSD with/without the dual diagnosis of substance abuse was 40 years of age.

When analyzing the Department of Defense in isolation, the age range of subjects involved in the treatment of PTSD with/without the dual diagnosis of substance abuse was 17 to 62 years of age. The averages of all the subjects involved are as follows: 33 years, 30 years, 39 years, and 40 years of age. The average age of the subjects involved in the studies conducted by the Department of Defense in the treatment of PTSD with/without the dual diagnosis of substance abuse is 36 years of age. All studies conducted by the Department of Defense in the treatment of PTSD with/without the dual diagnosis of substance abuse disclosed the subjects’ age.

In studies conducted by the Department of Veterans Affairs and Department of Defense researching the treatment of PTSD with the dual diagnosis of substance abuse within OEF/OIF veterans, the age of subjects ranged from 18 to 62 years old. The average age of subjects in these studies was 40 years of age. It should be noted that one of the studies used for the determination of the average did not include age or group of ages for subjects.
In analyzing the Department of Veterans Affairs in treatment of PTSD with the dual diagnosis of substance abuse, the age range of participants was not supplied. Therefore, there is no average age disclosed for the Department of Veterans Affairs in treatment of PTSD with the dual diagnosis of substance abuse. In regard to the Department of Defense in treatment of PTSD with the dual diagnosis of substance abuse the age range was 20 to 60 years old. The average age of the subjects in the study for DOD in treatment of PTSD with the dual diagnosis of substance abuse was 20 years, 40 years, 60 years, and 40 years.

Length of Study/Treatment

Another variable studied was the length of study/treatment of PTSD with/without the dual diagnosis of substance abuse within the Department of Veterans Affairs and Department of Defense. The Department of Defense and Department of Veterans Affairs were both analyzed together for length of study/treatment and the two departments were isolated to analyze the length of study/treatment by department. Both Departments were also analyzed to study the length of study/treatment of PTSD with the dual diagnosis of substance abuse. Again, both departments were isolated to analyze the length of study/treatment of PTSD with the dual diagnosis of substance abuse. Therefore, this study looks at six different categories, (1) DOD/VA length of study/treatment of PTSD with/without the dual diagnosis of substance abuse, (2) DOD/VA length of study/treatment of PTSD with the dual diagnosis of substance abuse, (3) DOD length of study/treatment of PTSD with the dual diagnosis of substance abuse, (4) DOD length of
study/treatment of PTSD with/without the dual diagnosis of substance abuse, (5) VA length of study/treatment of PTSD with the dual diagnosis of substance abuse, (6) VA length of study/treatment of PTSD with/without the dual diagnosis of substance abuse.

In analyzing the Department of Veterans Affairs and Department of Defense, there were four studies conducted by both departments that took one or multiple years to complete. In 1980, the Department of Defense commenced a study that took 28 years to complete. In 2001, the Department of Defense and Department of Veterans Affairs participated in studies that took five years to complete. In 2004, the Department of Veterans Affairs participated in a study that took three years to complete. Also in 2007, the Department of Defense participated in a study that took one year to complete. The average amount of years for the Department of Veterans Affairs and Department of Defense multiple-year studies with treatment of PTSD with/without the dual diagnosis of substance abuse is 9.25 years.

In terms of months, both the Department of Defense and Department of Veterans Affairs were involved in several studies in the treatment of PTSD with/without the dual diagnosis of substance abuse. In 2005, the Department of Defense participated in a study that lasted two months. In 2008, both departments participated in the same study that lasted one month. Also in 2009, both departments participated in the same study that lasted three months. The Department of Defense participated in a study in 2007 that lasted two months. The Department of Veterans Affairs participated in a study in 2010 that lasted six months. In 2005 the Department of Veterans Affairs participated in a
study that lasted six months. Last, in 2008, the Department of Defense participated in a study that lasted one month. The average length of study/treatment for VA and DOD studies for treatment of PTSD with/without the dual diagnosis of substance abuse for less than one year was three months.

This section focuses on the length of study/treatment for both the Department of Veterans Affairs and the Department of Defense in the treatment of PTSD with the dual diagnosis of substance abuse. It is to be noted that one of the studies did not disclose a length of study/treatment. The length of study/treatment for the Department of Veterans Affairs and Department of Defense was 28 years. The inception of the study was 1980 and did not conclude until 2008. Analyzing the length of study/treatment for the Department of Defense in the treatment of PTSD with the dual diagnosis of PTSD, showed it also lasted 28 years and commenced in 1980. The Department of Veterans Affairs also studied PTSD with the interaction of substance abuse, but failed to divulge a length of study/treatment.

The Department of Defense also conducted studies on its own to study PTSD with/without the dual diagnosis of substance abuse. The length of study/treatment varied by study and for the purpose of this study they were analyzed in a duration measurement of months and years. DOD had four studies with duration of less than one year and three studies with a duration of one year or multiple years. The length of study/treatment for those studies less than one year were as follows: one month, two months, two months, and one month. The average number of months was 1.5. The length of study/treatment
for those studies involved in one or multiple years are as follows: one year, five years, and 28 years. The average number of years is 11.3 years.

In analyzing the Department of Veterans Affairs by itself, the length of study/treatment for studies that researched PTSD with/without the dual diagnosis of PTSD varied. For studies under one year, they were measured in months. The Department of Veterans Affairs had two studies that lasted approximately six months. The VA had studies that lasted three months and one month. For studies that lasted one year or multiple years, the VA had one study that lasted three years. The average length of study/treatment was four months for the Department of Veterans Affairs for the treatment of PTSD with/without the dual diagnosis of substance abuse.

**Summary**

**Modalities**

After analyzing and reviewing the variables explored for the purpose of our study, there were some profound findings. For example, after analyzing the modalities most frequently used by the Department of Veterans Affairs and Department of Defense for OEF/OIF Veterans with the diagnosis of PTSD with or without the dual diagnosis of substance abuse, it was significant to notice that exposure therapy was used for that treatment. The Department of Veterans Affairs and the Department of Defense used exposure therapy 49.9% of the time when there was an OEF/OIF Veteran in need of treatment for PTSD with or without the dual diagnosis of substance abuse.
When treatments involved treating OEF/OIF Veterans diagnosed with PTSD with the dual diagnosis of substance abuse, the two departments differed in their use of modalities. The Department of Veterans Affairs used four modalities 25% of the time each, and the Department of Defense used 10 modalities 10% each. The Department of Veterans Affairs used the following modalities: resource education, group therapy, one-on-one therapy, and substance abuse counseling. The Department of Defense used the following modalities: exposure therapy, group therapy, Chaplin services, substance abuse counseling, one-on-one therapy, resource education, case management, family interventions, medication treatment, and reintegration services.

**Gender**

For a larger part of the studies both male and female subjects were used together for the same study. Both the Department of Defense and Department of Veterans Affairs used the combination of male and female subjects for their studies. In studies that involved both agencies, male and female subjects were used 90% of the time in studies and male subjects alone were used 10% of the time. Another profound finding was the fact that both the Department of Defense and Department of Veterans Affairs used male and female subjects 100% of the time when treating OEF/OIF veterans diagnosed with PTSD with the dual diagnosis of substance abuse.

**Dates of Studies**

All the studies gathered for our study involved studies conducted from 2005 to 2010. One study involved research conducted for 28 years, which commenced in 1980.
and concluded in 2008. Only research conducted after 2005 was gathered from the study that lasted 28 years.

**Ages in Studies**

In analyzing the Department of Defense and Department of Veterans Affairs studies conducted in the treatment of PTSD with/without the dual diagnosis of substance abuse, the ages ranged from 17 years old (earliest accepted age into the military with parental consent) to the age of 62. The average age of all the studies conducted by both departments was 38 years of age. When analyzing the Department of Veterans Affairs in isolation in regard to treatment of PTSD with/without the dual diagnosis of substance abuse, the age range of subjects was 18 to 62 years of age. The average age of the subjects in the studies conducted by the Department of Veterans Affairs in treatment of PTSD with/without the dual diagnosis of substance abuse was 40 years of age.

When analyzing the Department of Defense in isolation, the age range of subjects involved in the treatment of PTSD with/without the dual diagnosis of substance abuse was 17 to 62 years of age. The average age of the subjects involved in the studies conducted by the Department of Defense in the treatment of PTSD with/without the dual diagnosis of substance abuse was 36 years of age. In studies conducted by the Department of Veterans Affairs and Department of Defense researching the treatment of PTSD with the dual diagnosis of substance abuse within OEF/OIF veterans, the age of subjects ranged from 18 to 62 years old. The average age of subjects in these studies was 40 years of age.
Length of study/treatment

When combined, both the Department of Defense and Department of Veterans Affairs used four one-year and multiple-year studies for the treatment of PTSD with or without the dual diagnosis of substance abuse. The average number of years totaled 9.25 years. Also, when combined, both the Department of Defense and Department of Veterans Affairs used seven studies that conducted research for less than one year for the treatment of PTSD with or without the dual diagnosis of substance abuse. The average number of months totaled three months.

The Department of Defense conducted four studies that conducted research for less than one year for the treatment of PTSD with or without the dual diagnosis of substance abuse. The average here was 1.5 months. The Department of Defense also conducted three studies that were one year or longer with an average of 11.3 years. Last, the Department of Veterans Affairs conducted four studies that were under one year for the treatment of PTSD with or without the dual diagnosis of substance abuse. The average for the VA was four months. For studies that lasted one year or multiple years, the VA had one study that lasted three years in duration.
Chapter 5
CONCLUSION, LIMITATIONS, AND IMPLICATIONS

Conclusion

The research problem reviewed for this project was the effectiveness of treatment modalities for PTSD and substance abuse implemented for returning veterans of OIF/OEF in two different healthcare systems, Department of Veterans Affairs and the DOD/military. We looked at secondary data to compare the effectiveness of the different modalities. In this study, treatment response by both the DOD and VA for OEF/OIF veterans with PTSD and the interaction of substance abuse was analyzed. Also, in this study, treatment response by both the DOD and VA for OEF/OIF veterans with/without PTSD and the interaction of substance abuse was analyzed. Treatment response by both departments was analyzed in the form of modalities used for either PTSD with the interaction of substance abuse or PTSD with/without the dual diagnosis of substance abuse. The modalities analyzed for both DOD and VA were exposure therapy, cognitive-behavior therapy, group therapy, substance-abuse therapy, one-on-one therapy, resource education, case management, family interventions, reintegration services, medication treatment, and Chaplin services/crisis intervention. Other modalities later added as the project progressed were exercise therapy, EMDR, and telemental health.

Other findings of interest were gender, age of subjects, year of study, and length of study/treatment. Although these variables were not part of the research hypothesis, they were significant in shaping the overall findings. These variables helped analyze the
data by exploring what modalities work for what age or gender and whether the length of time for each study/treatment was significant enough to generalize to the larger population.

**Modalities**

This study analyzed and explored treatment responses by both the Department of Defense and Department of Veterans Affairs of OIF/OEF soldiers/veterans diagnosed with PTSD and substance abuse. To fully understand and compare the modalities selected to treat OIF/OEF soldiers/veterans diagnosed with PTSD with the dual diagnosis of substance abuse, it was also critical to group both OIF/OEF soldiers/veterans diagnosed with PTSD and the dual diagnosis of substance abuse and subjects who were only diagnosed with PTSD. The second group of subjects (OIF/OEF soldiers/veterans diagnosed with PTSD with/without the dual diagnosis of substance abuse) was used as a comparison group for the first group of subjects (OIF/OEF soldiers/veterans diagnosed with PTSD and the dual diagnosis of substance abuse).

A major finding was the fact that in all studies analyzed, the most frequent modality used was exposure therapy. This modality was the most frequently used by both the Department of Veterans Affairs and the Department of Defense to treat OEF/OIF soldiers/veterans diagnosed with PTSD with/without the dual diagnosis of substance abuse. Exposure therapy was used 50% of the time by both departments to treat PTSD with/without the dual diagnosis of substance abuse. The Department of Veterans Affairs was leading the way in the use of exposure therapy with 33% of the time
used to treat subjects with PTSD with/without the dual diagnosis of substance abuse. The Department of Defense applied exposure therapy 17% of the time when treating subjects with PTSD with/without the dual diagnosis of substance abuse.

Exposure therapy was found to be the most effective modality in the studies used in the literature review of this thesis project. Exposure therapy was found to be the most effective because it is a measurable modality that can be used in the medical setting. Exposure therapy is a type of CBT (Cognitive Behavioral Therapy) that exposes the patient to stressors in a controlled environment. This modality has been found to be highly effective when treating patients diagnosed with PTSD. This modality is particularly important for clinicians to study and assess when looking at the military/veteran population diagnosed with combat-related PTSD because the stressors veterans are experiencing in combat are not isolated events. Narrative therapy is a type of exposure therapy that can be effective with veterans in a group therapy session, but this modality alone might not be enough.

Virtual reality exposure therapy would allow the clinician to bring the veteran back to active duty and into a simulated combat zone. In a virtual reality simulator, the clinician could involve all the veteran’s senses while controlling the environment. For example, the veteran could experience the feel of a weapon in their hands, the sights similar to the conflict zones of Iraq or Afghanistan, sounds of combat, the smells of diesel fuel burning and gun smoke, and the sense of alertness of being in combat. These virtual reality simulators are already in use by the military in training our soldiers to
prepare for combat. Clinicians could use these programs to help treat veterans with PTSD with more research and assessment of these programs. As stated before, exposure therapy alone is not the answer. Much like the civilian police world, after any incident, there needs to be a debriefing. The military uses debriefings after all training events, but after combat there is not always time to debrief soldiers in the field. This is why other modalities like Critical Incident Stress Debriefing can be used in conjunction with the virtual reality exposure therapy.

The goal with virtual reality exposure therapy is to repair any rupture the veteran had experienced during combat. The debriefing also allows the clinician to gauge the effectiveness of the treatment program and adjust their therapy accordingly. The problem with implementing it is that it does not address veterans who may have PTSD and other co-morbidities such as substance abuse. This thesis project assessed different modalities used in treating both PTSD and substance abuse. What we found was there was very little research done with veterans diagnosed with both diagnoses. Out of the 18 studies analyzed, only three studies covered modalities used in treating PTSD and substance abuse. Those studies used modalities such as group therapy, substance abuse counseling, one-on-one therapy with a counselor, and resource education.

Other findings of significance were the modalities used by both departments to treat PTSD with/without the dual diagnosis of substance abuse that did not involve exposure therapy. The other modalities used by both departments to treat PTSD with/without the dual diagnosis of substance abuse are as follows: group therapy at 13%,
substance-abuse counseling at 8%, one-on-one therapy at 17%, resource education at 13%, case management at 8%, family interventions at 4%, reintegration services at 8%, medication treatment at 12%, Chaplin services at 4%, exercise therapy at 4%, EMDR at 4%, and telemental health at 4%. Many of the modalities used in this project did not have much literature to give sufficient evidence of the modalities effectiveness in treating veterans with a PTSD and substance abuse diagnosis. Many of the mentioned modalities in this project cannot be measured quantifiably; rather, they are measured qualitatively. This is important when different modalities are analyzed and assessed within the medical field. Modalities that can be proven to be effective and are measurable receive more attention and funding while other modalities, although effective, may not be regarded as highly in the medical community. It is important for clinicians to research and assess combinations of modalities to provide holistic treatment to said veterans.

Another important finding was the modalities used by both departments to treat PTSD with the dual diagnosis of substance abuse. It is significant to mention that when treating OEF/OIF soldiers/veterans, the Department of Veterans Affairs does not have a modality of choice or primary modality used. Instead, the Department of Veterans Affairs has an eclectic approach. The Department of Veterans Affairs used four modalities 25% of the time each. These modalities are group therapy, one-on-one therapy, substance-abuse therapy, and resource education.

When analyzing the Department of Defense studies, similar results were yielded as in the Department of VA studies for treating OEF/OIF soldiers/veterans diagnosed
with PTSD with the dual diagnosis of substance abuse. Unlike the Department of VA, DOD used an array of modalities when treating subjects with PTSD with the dual diagnosis of substance abuse. The following is a breakdown in percentages of their use within the Department of Defense to treat PTSD with the dual diagnosis of substance abuse: exposure therapy (also includes cognitive-behavioral therapy) at 10%, group therapy at 10%, substance-abuse counseling at 10%, one-on-one therapy at 10%, resource education at 10%, case management at 10%, family interventions at 10%, reintegration services at 10%, medication treatment at 10%, and Chaplin services (also includes crisis intervention) at 10%.

Both departments failed to yield a primary modality used when treating PTSD with the dual diagnosis of substance abuse. Although research on PTSD with the dual diagnosis of substance abuse has been continuing since the inception of both Operation Enduring Freedom and Operation Iraqi Freedom, there is still no primary modality used by either the Department of Defense or Department of Veterans Affairs. For both departments, future research involving exposure therapy appears prominent. In addition, virtual reality therapy appears to be where future research is headed for both departments when treating PTSD with the dual diagnosis of substance abuse.

**Gender**

Analyzing gender is important for getting an understanding of the population of veterans used in the studies. This information is important for clinicians understand what the veteran populations may look like. This also helps the clinician understand which
modality is more effective for which gender. As stated before, when looking at dual diagnosis, the treatment plan all depends on the individual patient and their receptiveness to the treatment.

Another finding of interest was the genders of the subjects who participated in the studies. The gender findings were significant because they allowed for greater generalizability and validity of the findings. For both departments, the subjects involved in all the studies included both male and female participants. For all studies conducted by both departments, male and females were used more frequently. For example, in studies conducted by DOD and Department of VA to treat PTSD with/without the dual diagnosis of substance abuse, male and female subjects were used 90% of the time and only male subjects 10% of the time. In isolation, the Department of VA yielded the same results when treating OEF/OIF veterans diagnosed with PTSD with/without the dual diagnosis of substance abuse. Male and female subjects were used 90% of the time and male subjects were used 10% of the time. The use of both male and female subjects by the VA only makes their findings stronger.

In isolation, DOD used both male and female subjects as well. When treating OEF/OIF soldiers/veterans diagnosed with PTSD with/without the dual diagnosis of substance abuse, DOD used male and female subjects 78% of the time and only male participants 22% of the time. The DOD used more male-only studies than the Department of VA, at least 12% more.
When treating PTSD with the dual diagnosis of substance abuse, both departments used male and female participants 100% of the time. This is significant because PTSD and substance abuse have no boundaries, and the results show that both genders have been affected by the two disorders. Both male and female soldiers/veterans have participated in either OEF or OIF or both. Also true is the fact that this is the first time in U.S. history that women have participated in combat operations; historically women have only participated in support operations in past wars. Therefore, the findings regarding gender are significant because it takes into account both genders’ participation in combat operations, and signifies that both genders are being affected by PTSD and substance abuse.

**Age of Subjects**

The age of the subjects involved in the studies was also significant because it demonstrates which age group is being most affected by PTSD and substance abuse. When treating PTSD with/without the dual diagnosis of substance abuse by both departments, the average age of the subject was 38 years. When treating PTSD with/without the dual diagnosis of substance abuse by the Department of VA, the average age was 40 years. In isolation, when DOD treated PTSD with/without the diagnosis of substance abuse, the average age was 36 years. When both the DOD and Department of VA treated PTSD with the interaction of substance abuse, the average age of the subject was 40 years. In isolation, when DOD treated PTSD with the dual diagnosis of substance abuse, the average age was also 40 years. The age of subjects being affected by PTSD
with substance abuse was 40 years. The age range of subjects from both departments with/without the dual diagnosis of substance abuse was 36 to 40 years. The age range of all the studies included (PTSD with substance abuse and PTSD with/without substance abuse) was 36 to 40 years. This number is significant because it can be inferred that a soldier or veteran at that age could have made multiple trips to one or multiple combat operations. If a soldier or veteran has made multiple trips to one or multiple combat operations, this could also be analyzed and taken into consideration of whether making multiple trips to one or multiple combat operations exacerbated pre-existing conditions.

**Length of Study/Treatment**

The length of study/treatment was also significant because the longer the treatment, the more generalizibility and validity of the study. When analyzing VA and DOD multiple-year studies with treatment of PTSD with/without the dual diagnosis of substance abuse, the duration of the studies ranged from 1-28 years with an average duration time of 9.25 years. For studies conducted by both departments in treatment of PTSD with/without the dual diagnosis of substance abuse in terms of months, the average length was three months. The Department of Defense treatment of PTSD with/without the dual diagnosis of substance abuse yielded an average of 11.3 years when analyzing only studies that were a year in length or longer. The Department of Defense treatment of PTSD with/without the dual diagnosis of substance abuse yielded an average of 1.5 months when analyzing only studies that were under a year. When analyzing the Department of VA in treatment of PTSD with/without the dual diagnosis of substance
abuse in terms of months, the average was four months. When analyzing the Department of VA in treatment of PTSD with/without the dual diagnosis of substance abuse in terms of years, there was only one study; it was three years in length. The Department of Defense participated in a study that lasted 28 years and focused on PTSD with the dual diagnosis of substance abuse. The Department of VA failed to disclose a duration time for its participation in treatment of PTSD with the diagnosis of substance abuse.

**Dates of Studies**

The significance of the dates the studies were conducted shows relevance to the current combat operations in Iraq and Afghanistan. The articles gathered for this study were published between 2005 and 2010. These studies focused on current soldiers and veterans who made one or multiple trips to one or two combat operations in Iraq or Afghanistan. The studies gathered for this project disclose modalities used to treat both veterans/soldiers diagnosed with PTSD with the dual diagnosis of substance abuse and PTSD with/without the dual diagnosis of substance abuse. The significance of the current research from the last five years is that the research takes into consideration advances in technology that would not have been part of therapy 20 or 30 years ago. Current treatment of PTSD has only recently included such advancements in technology such as virtual reality.

**Limitations of This Study**

The limitations of this study were the sample size and the studies used for this project. We used 18 studies selected to be the most appropriate for this study. The
modalities were selected prior to the selection of the studies but not all the modalities selected for this project were represented proportionately in the studies selected. The 18 studies used for this project was a small sample for getting conclusive evidence the modality discussed was truly effective. How reliable were the studies used for this project? The purpose of the studies analyzed for this project did not always look at the effectiveness of a modality. This project relied on the interpretation of secondary data and studies that assess different treatment plans for veterans of OIF/OEF diagnosed with PTSD and with/without co-morbid substance abuse.

**Future Research**

To expand on this project, more research needs to be done on the different modalities conducted in the field with veterans. Assessments of different treatment programs used on the military population as well as the civilian population would expand on the effectiveness of different modalities. Also, a qualitative and quantitative study conducted directly with veterans with these dual diagnoses would be necessary to analyze different treatment plans from the patients’ perspective. A large long-term retrospective study on veterans from OEF/OIF with PTSD and/or substance abuse would possibly be able to identify just how many veterans are affected by these diagnoses, what modalities are used for treatment, and how many veterans are able to be successfully treated. Research on how to prevent PTSD and/or substance abuse within the military should also be conducted.
Policy and Practice Implications for Social Work

In practice, exposure therapy should be used as a modality to treat PTSD because of its measurable effectiveness. Along with exposure therapy, a combination of other modalities should be used to treat PTSD with other co-morbid diagnoses. During treatment, the soldier, as well as his family/support system, should be included in treatment because the symptoms of PTSD can be minimized with a good support system. In treatment settings, the veterans would be best served by having holistic healthcare teams that collaborate with one another to provide well integrated care.

Throughout the social work profession, social workers should be trained in recognizing the needs for the military population. The military population can be found in any civilian services due to the locations of active duty bases throughout California and the integration of National Guard and reservist personnel in the civilian population. Social workers should be aware of the effects deployments have on families and the community. This could be implemented in policy with mandatory cultural awareness training. Also, at the master’s level of education, elective classes should be offered for students interested in working with the military population. Oftentimes in school, government social work is overlooked because the school staff have very little experience with DOD/military social work and this is rarely offered as an option as a career opening. More education should be offered on combat-related PTSD and various dual diagnoses in the bachelor’s and master’s level of education and in the field of social work. These men
and women of the military sacrifice so much for this country, the least we can do as social workers is offer the best level of care we can offer.
APPENDIX

Data Extraction Form

An Analysis of the Military/DOD and Department of Veteran Affairs treatment Response to OIF/OEF Soldiers Diagnosed with PTSD and Substance Abuse:
A Systematic Review

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<th>Age groups included in study:</th>
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<tbody>
<tr>
<td>□ Male</td>
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</tr>
<tr>
<td>□ Female</td>
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<tr>
<td>□ Both</td>
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Modalities included:

- □ Exposure therapy/Cognitive-Behavior Therapy
- □ Group Therapy
- □ Substance-Abuse Counseling
- □ One-on-One Therapy
- □ Resource Education
- Case Management
- Family Interventions
- Reintegration Services
- Medication Treatment
- Chaplin Services/Crisis Intervention

<table>
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<th>General Findings:</th>
<th>Follow-up Treatment mentioned:</th>
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<tbody>
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</table>

VA: _______        DOD/Military: _______

Length of study/ Length of treatment:
REFERENCES


