PSYCHIATRIC SERVICE ANIMALS FOR VETERANS WITH PTSD AND OTHER MENTAL HEALTH DIAGNOSIS

A Project

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Department of Social Work
Abstract

of

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The purpose of this research was to identify perceived outcomes that examine the effectiveness of a psychiatric service animal with veterans diagnosed with PTSD. This qualitative content analysis study explores veterans’, diagnosed with PTSD, perspectives on the perceived benefits of having a psychiatric service animal. Utilizing a qualitative questionnaire to interview twelve veterans with PTSD that participated in the PTSD service dog training at Capital City, K9 in Sacramento, CA. Three themes emerged when interviewing the veterans with PTSD that participated in the training: significant improvement in quality of life, decrease in isolative behaviors, and an increase in social skills. Implications for social work practice and policy were also discussed.

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Chapter 1

INTRODUCTION

Posttraumatic stress disorder (PTSD) is a mental health disorder that occurs in some people after they are exposed to a traumatic event (i.e. combat, sexual assault, car accident). It is natural to have difficult memories when it comes to a traumatic event. When the difficult memories affect a person for a longer than two months it can change from having a natural reaction to PTSD. The National Comorbidity Survey Replication (2003), indicated the lifetime prevalence of PTSD among adult Americans is 6.8%. PTSD rates in veterans vary by the era a veteran served in. According to the RAND Center for Military Health Policy Research (2008) 11.2% of veterans that deployed to Iraq or Afghanistan, around 31% of Vietnam Veterans and 10% of Gulf War veterans live with mental health issues. Given the high rates of PTSD more effective interventions need to be established.

PTSD is not a disorder that only occurs with veterans. Civilians that have not experienced the military can get PTSD if exposed to trauma. The difference between the military/veteran and civilian populations is that veterans may be exposed to combat. Veterans have a chance to be exposed to life-threatening situations for around a year when deployed. Other factors tied to deployed members can be what they did in war, politics concerning the war, where they are deployed to and the enemy and tactics that they face i.e Vietnam veterans experienced booby traps and veterans of the wars in Iraq and Afghanistan could have faced ied’s (PTSD.VA.GOV, 2018).
MST (military sexual trauma) is also prevalent in the military. MST is any sexual
harassment/assault that occurs during a veteran’s service. MST happens to both men and
women and can occur during peacetime, training or war. Twenty-three percent of women
disclosed that they were a victim of sexual assault while in the military. Fifty-five percent
of women and 38% of men have reported being a victim of sexual harassment while in
the military. MST is more common with women than men, but half of veterans that have
reported MST are men (PTSD.VA.GOV, 2018).

Race has been shown to have an impact on PTSD rates in people of color. African
American veterans experience higher rates of PTSD compared to white veterans. This
can be due to the intergenerational trauma they have been exposed to due to their race.
The stressors that African American veterans face can lead to PTSD or make a PTSD
diagnosis more severe (Coleman, 2016).

The symptoms of PTSD are pervasive and disabling. The National Center for
PTSD (2015) states there are four main symptoms that one living with PTSD may
experience. The first symptom has to do with re-experiencing or re-living the traumatic
event. A person may feel like they are going through the event a second time. The person
may have the same psychological and/or physiological reaction they did when the event
occurred. Re-living an event can take shape in many different ways. These ways include:
having nightmares of the traumatic event or dreams that include certain details of the
traumatic event. A person may have a flashback; or feel like they are re-living the
traumatic event. One other way can be if a person is triggered by something they see,
smell, or hear something that reminds them of the traumatic event (i.e. a loud noise could
remind a veteran of gunshots or an explosion they experienced while deployed). The second symptom is avoiding any people or situations that make the person feel unsafe or that reminds them of a trauma they experienced. Some may even avoid thinking of or mentioning their trauma (i.e. a veteran may avoid crowds because they do not feel safe and cannot maintain situational awareness). The third symptom that may present itself is the way a person may feel about themselves or others because of the trauma they experienced. This negative way of thinking may affect the person in the area of personal relationships because the person may have negative thoughts about themselves or others’ which may include trust issues. This symptom may cause the person to have amnesia associated with the trauma they experienced. The fourth symptom is hyperarousal which includes extreme anxiety and unusual responses to every day experiences. This may look like a person that is constantly on guard and looking for any perceived threats. This can effect a person’s ability to sleep or concentrate (Wassing et. al., 2016). It may cause an exaggerated startle reaction to loud noises or anything that reminds a person of their trauma. Due to being constantly on-guard, a person with PTSD may always try to situate themselves where they have the best point-of-view of their surroundings while in public. These symptoms often inhibit one’s ability to have normal interactions with anyone. The symptoms associated with PTSD often impact one’s ability to function and usually require some attention. The treatments usually associated with PTSD include an array of medications and/or psychotherapy.

Even though many suffer from PTSD only some seek treatment. Forty-nine point nine percent of the general population seek treatment for their PTSD (Wang et al., 2005).
Only a small amount of veterans seek treatment for PTSD. One study estimated that only 9.5% of veterans with a diagnosis of PTSD attended nine or more psychotherapy sessions (Seal et al., 2010). It is evident that many veterans diagnosed with PTSD do not seek treatment. One thing that may be responsible for veterans not using services are because of the challenging nature of some of the psychotherapies (Reisman et. al., 2016). Most require the veteran to re-experience their trauma which may be difficult for many. Due to the need of exposure as a supplement to treatment many are ambivalent when it comes to dealing with their trauma and resulting thoughts. Another reason for only a percentage of veterans receiving treatment could be availability. According to Marylene Cloitre (2015), evidence based strategies for trauma are well dispersed but only given to around 10% of veteran patients seeking treatment for PTSD. This could be due to the V.A. system failing veterans diagnosed with PTSD or the feasibility and interest generated by the treatment.

Even though progress has been made in the development of effective treatment, especially with cognitive behavioral therapies that include exposure as part of the treatment, many veterans do not fully recover after one cycle of treatment (Iribarren et. al., 2005). Some research has shown that PTSD related to combat exposure is the most difficult to treat. This has resulted in PTSD related to combat to have the lowest remission rates when compared to other types of trauma (i.e., childhood sexual assault; Bradley et al., 2005; Foa, et al., 2009). While the definition for “successful” treatment can depend on the study being referenced, the percentage of veterans responding to an empirically supported psychotherapy has been as high as 90% to as low as 50% (Kar,2011). Due to these outcomes, other treatment options do need to be researched.
In 1986, the U.S. Army Surgeon General recognized animals as a useful tool in boosting psychological health (Chumley, 2012). As a result of this disclosure, a “human-animal bond advisor” was selected to help promote and implement animal-assisted therapy (AAT) in the Department of Defense (Institute of Medicine, 2012). Animal-assisted therapy (AAT) has been used to treat both physical and mental health issues and in both inpatient and outpatient settings (Levinson, 1969; Kruger & Serpill, 2006; Rosetti & King, 2010). AAT is a goal-directed intervention that utilizes an animal that has met specific criteria, as a necessary part of the treatment (The Delta Society, n.d., in Kruger & Serpell, 2006, p 23). Dogs are the most common animal utilized for AAT. Dogs, which can be trained for use with psychiatric care are known as “Psychiatric Service Dogs” (PSDs; Esnayra, 1998).

To assist individuals diagnosed with PTSD, psychiatric service dogs can be trained to help in different parts of life: for hypervigilance, the dog can alert the owner to the presence of others, for nightmares, the dog can turn on the light and/or lick the person’s face to wake them; for flashbacks, the dog can be trained to note physical signs of flashback and interrupts owner, which can in turn be a reminder for the owner to utilize therapeutic skills they have learned (Esnayra & Love, 2012). Another use for a psychiatric service dog is to help a veteran reintegrate into society. Since service dogs require care (i.e. feeding and walks) this may provide the veteran with a purpose and help them leave their home and also may provide an activity with a goal. These activities can be related to reengagement and also self-efficacy. There is a lack of research involving
veteran input on psychiatric service animals used in care. There needs to be more research as to why a veteran seeks out a service animal for mental health reasons.

In an attempt to explore alternative interventions to include in treatment of PTSD, this study will focus on perceived benefits of having a psychiatric service animal by participants. Capital City K-9, a non-profit organization, trained psychiatric service animals for veterans seeking them. The training focused on the dog’s behavior and how it can be utilized in assisted veterans with PTSD symptoms. The training provided was unique in part, because the veterans were included in the training of the service dogs which can help strengthen the bond between the veteran and the animal. Capital City K-9 can train an animal that is already owned, but it will need to pass certain tests that determine if the dog is suitable to be trained. If the veteran does not have an animal, Capital City K-9 can help match the veteran with one. This is done through a partnership with a local animal shelter. This study will examine expectations regarding the training and the service dog in general.

The veterans will complete a qualitative semi-structured in-depth interview. Veterans will answer the questionnaire after completing the training with Capital City K-9 and their service dog. It is the goal of this study to determine whether participants believe that psychiatric service dogs help with the symptoms of PTSD and improve the veteran’s quality of life. A second goal of this study was to contribute to the body of literature that pertains to treatment for veterans with PTSD.
Chapter 2

LITERATURE REVIEW

Introduction to PTSD

Prevalence and the Diagnostic Criteria for PTSD

The diagnostic criterion for PTSD has evolved since the disorder was originally introduced in the third edition of the *Diagnostic and Statistical Manual* (DSM-III; American Psychiatric Association (APA), 1980). The DSM-IV definition of “trauma” was more inclusive than the previous edition which led to more diagnosis of PTSD (Breslau, 2009). Based on the DSM-IV definition, Norris (1992) calculated that roughly 69% of people would experience a traumatic event some point in their life. To address the high prevalence rates created by criterion for PTSD in DSM-IV, The DSM-V (APA, 2013) defined “traumatic events” differently. The DSM-V tries to clarify criterion A by creating a better definition for “traumatic” and “non-traumatic” events. The change in criterion A implicates a direct impact on the occurrence of PTSD in the general population. A recent study conducted by Calhoun and others in 2012 suggests that the changes in Criterion A for PTSD from DSM-IV to DSM-V will effect nearly 6% percent of individuals diagnosed with PTSD. These 6% will no longer meet criteria for having experienced a traumatic event.

PTSD is a unique diagnosis within the DSM because it is linked to a specific trigger or event. Negative impacts on a person who experienced a traumatic event can range from emotions like anger and/or guilt, to physiological symptoms as headaches and stress. A person’s view of their surroundings can be altered by experiencing a traumatic
event. This can effect relationships, types of coping mechanisms, and belief or non-belief in a higher power. This can all contribute to the occurrence of depression and other co-occurring disorders. The following sections will explore the development of PTSD in military veterans. The associated features of PTSD will be explored and also the existing treatments for PTSD with a concentration on military veterans. Areas of improvement will also be discussed.

**PTSD in Veterans**

PTSD can be a result of exposure to a traumatic event. Initially, PTSD was associated with mostly war and combat experience. The initial diagnosis of PTSD in DSM-III focused on war, torture and other events that were not part of “usual human experience” (APA, 1980). Wartime experience beginning with the United States Civil War and World War I, were the base for research on negative symptoms that could occur due to combat exposure. Mott introduced the term “shell shock” in 1919 to describe the experience soldiers had after experiencing combat (Trimble, 1985). Other terms like “wartime neurosis” and “combat fatigue” were introduced later on to describe the same experiences. There are several risk factors for PTSD that are more prevalent in the veteran population. These risk factors include: Combat experience, being wounded in combat, becoming a prisoner of war (which could include being tortured), witnessing someone die violently, handling of human remains, and always being prepared for combat are factors that are commonly associated with military related PTSD (Institute of Medicine, 2012).
PTSD diagnosis in combat veterans are very high and are constantly higher than the general population. PTSD rates for combat veterans range from 10.1% to 30.9% (Kessler, Chiu, Demler, Merikangas, & Walters, 2005). These numbers could possibly be higher but not everyone that warrants a diagnosis for PTSD seeks help. According to the Congressional Budget Office 2012, over 442,000 veterans were getting treatment for PTSD. A study done by Maguen and colleagues from 2010, sampled veterans from OIF (Operation Iraqi Freedom) and OEF (Operation Enduring Freedom) to study differences in the amount of PTSD diagnosis between the two binary genders. Male veterans were more likely to be diagnosed with PTSD with a rate of 22% versus female veterans at 17%. Female veterans were more likely to receive a diagnosis of depression than their male counterparts. In the general population females have a higher prevalence rate of PTSD than males. One of the reasons this can be accounted for in the military is that males are able to hold jobs that have to direct combat while females are not. Females can also be underdiagnosed due to lack of combat experience. These numbers can change in the near future with combat occupations being opened up to females.

The actual amount of PTSD diagnosis in the military is probably higher than stated in previous literature. There are multiple things that can account for this. One reason is that veterans can be discouraged to report their symptoms and seek help due to things such as stigma (Hoge et al., 2004). Stigma is more of a problem in the military than in the general population. In the military it can be seen as weak to report any adverse mental health symptoms. Another reason for the difference in amount of diagnosis is that
the Veterans Affairs have started to consider self-reported symptoms of the disorder (VA/government compensation; Institute of Medicine, 2012).

**Associated Ideas and PTSD**

**Social Support**

Social support has multiple definitions. The one that fits within the realm of PTSD is feelings of being cared for, comforted and assisted by others (Flannery, 1990). The amount of social support has serious implications when it comes to PTSD. Having sufficient social support can determine if a person eventually develops PTSD and how severe their symptoms are. Some studies done on social support and PTSD have concluded that negative reactions by the support system toward the person diagnosed with PTSD can lead to a more severe stress reaction following a traumatic event, and may result in the person experiencing the trauma to develop PTSD (Andrews, Brewin, & Rose, 2003). On the other hand, research on social support within the same context has determined that certain types of positive support result in less negative reactions to trauma (Lepore & Revenson, 2006).

Social support has been shown to result in feelings of safety and well-being in the face of a stressful situation (Cohen & Wills, 1985). Cogen and Wills (1985) used the term “buffering model” to name the beneficial effects of social support in the face of stress. They used this term because social support systems can act as a “buffer,” and block the negative effects of stress. Social support has been related to emotion regulation. Positive support can promote recovery while negative support can hinder recovery after the stressful event. While some support systems provide care, some may provide negative
interactions with the person who experienced the trauma. Some people in a person’s social support system may withdraw, attempt to manipulate, or even blame the person for their experience.

**Trauma Outcomes and the Perception of Social Support.** The perception of being able to talk to someone about a traumatic experience is associated with a decrease in anxiety and other PTSD symptoms after experiencing a trauma (Joseph, 1999). If a person has a social environment where they feel they can discuss their experience and be met with compassion has been known to lead to a person developing more resilience. If the person experiences the opposite and is met with hostility and blamed for their experience they can experience negative health outcomes and feel like they have no social support. Immune system function has been related to a person’s social support system. It has been shown that positive social experiences may lead to less stress and maybe even relief of stress at times. This reduction of stress can also reduce susceptibility to disease and other physical ailments. In contrast, if one perceives little or no support, especially after experiencing a traumatic event, this can lead to higher levels of stress and can consequently damage their immune system (Jemmott & Locke, 1984).

How a person’s support system reacts to their trauma can affect their development of PTSD. A study done by Andrews, Brewin, and Rose (2003) looked at social support after a person has experienced a violent crime. Their findings showed that negative reactions from the social support system, such as victim blaming, were correlated with higher PTSD rates. This finding is based on how the victim of the event perceived their support system. Negative responses to the trauma have been associated with the
development of PTSD symptoms after the trauma. On the other hand, positive responses from social support systems are related to not developing symptoms of PTSD. Before and after a trauma, the way the victim perceives their support, can contribute to how susceptible they are to develop PTSD as well as how long it will take to recover from the symptoms (Charuvastra and Cloitre (2008). In general, the lack of social support after experiencing a trauma, has been the strongest correlation to developing PTSD in both civilians and veterans, regardless of gender (Brewin et al, 2000). While the presence of positive support after a traumatic experience has been associated with a lower risk of developing PTSD, lack of support has been shown to be associated with a higher risk for PTSD.

**Social Support and Veterans.** Social support plays a vital role in the development and recovery of PTSD. Social support is especially important, and often complicated, when it is associated with military experience. In an article by Barber, Rosenheck, Armstrong, and Resnick (2008) they discuss the need for peer support when it comes to military experience. Peer support would help with veterans because it would be support from people with common experiences from the military, which in turn would help the veterans seeking help because they could get the sense of comradery that they had when they were in the military. Since peer support is so important with this population many Veteran Service Organizations provide this support along with recreational events. Wounded Warrior Project is a big one that helps wounded veterans reintegrate into society by providing them with the needed services upon return. Another organization is Vets4Vets. They are a national nonprofit that provides support to veterans
from the current conflicts in Iraq and Afghanistan. MacEachron and Gustavsson conducted a study in 2012 on the social support provided by the Vets4Vets program. Veterans completed different study measures the day they arrived for a retreat, and before they left. Veterans reported less PTSD symptoms when leaving compared to when they arrived.

**PTSD and Comorbid Disorders**

A lot of research has been done on the relationship between PTSD and other mental health disorders including depression, anxiety, alcohol and other substance use/abuse, anger and guilt (Forbes, Creamer, Hawthorne, Allen & McHugh, 2003). Having a comorbid diagnosis has been associated with poor treatment outcomes and have also been thought to complicate approaches to treatment (Forbes et al., 2003). It has also been suggested in previous literature that alcohol misuse, trait anger, generalized anxiety disorder (GAD), and depression are largely relevant when research is conducted on veterans and PTSD because of the implications of treatment and complications related to outcomes (Forbes et al., 2003). One recent study indicated many instances of co-occurrence with PTSD, anger and hostility in adults who experienced a traumatic event. The highest effect sizes were in the population with combat exposure (Orth & Weiland, 2006). Kang and Bullman (2008) summarized that suicidal ideation and aggression are the two highest concerns when dealing with veterans and PTSD. The Department of Defense has begun to make changes to treatment. They have added guidelines for treatment specific to anger, irritability, and agitation because this issues are constantly present in veterans with PTSD (TAFT, Creech, & Kachadourian, 2012).
Depression and PTSD. Many studies have noted the overlap of symptoms between PTSD and major depressive disorder. Hyperousal symptoms, such as “difficulty falling and staying asleep” and difficulties with concentration are symptoms shared by both disorders (Bleich, Koslowsky, Dolev, & Lerer, 1997). Some research has shown that depression affects between 30% and 50% of those diagnosed with PTSD. Other research has shown that depression and PTSD are comorbid and that treatments that address both disorders should be considered because both disorders can complicate the recovery process (Campbell et al., 2006).

Depression may be related to a person with PTSD presenting with anger and aggression. In a study, it was hypothesized that depression would moderate forms of aggression in veterans of the OEF/OIF conflicts (Angkaw et. al., 2013). The results of the study showed that depression mediated the relationship of PTSD and self-harm and verbal aggression. While there is not much research indicating a relationship between the development of PTSD and the development of depression, it has been established that both disorders frequently co-occur and introduce problems for treatment.

Interventions and Outcomes for PTSD

Established Treatments for PTSD

PTSD symptoms can be debilitating. Therefore it is very important to research and implement the best possible treatments for those with PTSD. Since the earliest studies on PTSD there have been many advances when it comes to treating PTSD. Certain criteria has to be met in order to consider certain treatments as “well-established” or “evidence based.” Treatments that are labeled as “well-established” or “evidence
based” have to have been studied with at least two between-group design experiments showing that the treatment is effective. To be shown as effective, the treatment must be shown to be superior to medicine or other placebo or to another treatment. In an article written by Chambless and other (1998), the studies must be developed with careful standards. This would include utilization of manuals, specific client samples, and at least two different investigators/teams demonstrating the positive effect. For PTSD, there are already established treatments that are considered “evidence-based.” Interventions for PTSD that have been referred to as “evidence-based” are prolonged exposure (PE), present-centered therapy (PCT), cognitive processing therapy (CPT), seeking safety (this is for PTSD with a co-morbid substance use disorder), and eye movement desensitization and reprocessing (EMDR) (APA, 2006).

Of all the therapies, those with an exposure component have been regarded as the most effective (Foa, Keane, & Friedman, 2009). The Institute of Medicine (IOM) has endorsed exposure therapy as the only approach with adequate evidence backing it for the treatment of PTSD related to combat exposure (IOM, 2008). Interventions with an exposure element are shown to be effective because they target the anxiety and avoidance that is associated with encountering things that are related to the trauma experienced (Solomon, Gerrity & Muff, 1992).

There are three different ways that exposure can be conducted. There is imaginal exposure which the client imagines they are experiencing the trauma at that moment, in vivo exposure which a client actually goes out and exposes themselves to stimuli related to the traumatic event and virtual reality. Virtual reality uses technology to allow the
client to feel as if they are experiencing things related to the trauma. Treatments that use multiple ways to exposure, like prolonged exposure, have seemed to be the most effective (Bryant et al., 2008). The next sections will discuss literature that has to do with other therapy modalities given the “evidence-based” label. These are commonly used in Veterans Affairs settings. They include exposure, CPT, and EMDR.

**Exposure Therapy.** Prolonged exposure therapy is the most heavily researched of all exposure therapies (IOM, 2012). A number of articles were reviewed to examine their evidence in support of using exposure therapy to treat PTSD. The results of this research showed that exposure therapies were more effective than other “supportive therapies” (McLean and Foa, 2011). They were shown to be equally effective as medications used to treat PTSD. There is not a lot of data on long-term results of medicine vs. exposure therapy to treat PTSD. Data from a dissemination initiative showed a 30% overall reduction in symptoms for veterans who complete Prolonged Exposure (Karlin et al., 2010). A randomized controlled trial was conducted in and examined treatment success with female veterans and active-duty service members, which compared Prolonged Exposure with a group that utilized present-centered therapy. Participants that completed Prolonged Exposure showed a greater reduction in PTSD symptoms compared to the ones that completed present-centered therapy. The ones that completed prolonged exposure were also 1.8 times likely to recover from PTSD and not meet diagnostic criteria for it (Jason T. Goodson et al., 2013). When PTSD is combined with a Traumatic Brain Injury (T.B.I.), the “signature injury” of the current conflicts, T.B.I. severity must be determined. T.B.I. severity is mostly determined by time of loss
of consciousness (L.O.C.), duration of posttraumatic amnesia (P.T.A.), and utilization of the Glasgow Coma scale (G.C.S.) (Management of Concussion mTBI Workgroup, 2009). When one is diagnosed with a mild T.B.I. (m.T.B.I.) it is because they scored low on the L.O.C. and P.T.A. If symptoms persist past three months then the symptoms are generally due to other underlying mental health issues i.e. P.T.S.D. While there is not much literature on how P.E. is effective for veterans with a diagnosis of PTSD while having a T.B.I., there have been short-term results that have shown P.E. is effective for dealing with PTSD accompanied by a T.B.I. On the other hand, the study size was small and most veterans that participated in the study had a mild T.B.I.

**Cognitive Processing Therapy.** Cognitive Processing Therapy (CPT; Resick et al., 2002) is an intervention that includes components of Cognitive Therapy (CT; Beck, 1976) and Prolonged Exposure. CPT includes four components: Psychoeducation about PTSD symptoms and treatment, enhancing awareness of the connection shared by thoughts and emotions, skill development that allows consumer to question flawed cognitions and increase awareness of the effects that traumatic experiences can impact ones beliefs and views. Treatment is usually two sessions a week for six weeks. CPT’s exposure component consists of the consumer sharing their traumatic experience by writing it down and reading it to the therapist (IOM, 2012). This process is completed multiple times throughout the treatment process to help identify especially tough moments that the client has a hard time dealing with. By doing this process multiple times the therapist is able to help the client identify thoughts that are associated with specific details of their narrative.
CPT utilizes exposure components and parts of CT. In (2008) Resick and colleagues studied CPT to identify which components were best at dealing with the symptoms of PTSD. Their study consisted of clients broken into three groups: CPT in its entirety, CT (no exposure component), and written exposure by itself. The results of the study showed all groups had significant decreases in symptoms with no significant difference in results between the three groups.

Many randomized controlled trials (RCT’s) have been conducted to assess how efficient CPT is in military samples when compared to “treatment as usual” (TAU). Forbes and colleagues (2012) conducted a RCT with veterans from Australia to assess the effectiveness of CPT. Their findings suggested that CPT, when compared to TAU, resulted in a larger decreased in PTSD symptoms, anxiety, depression and interpersonal relationship improvement. When it came to TAU the interventions depended on the theoretical orientation of the therapist (Forbes et al., 2012, p.446). The types of therapy used as TAU were psychoeducation and “supportive counseling,” CBT with exposure components and symptom management interventions that were not focused on trauma (p. 446). A big limitation of this study was that those with suicidal ideation (SI) were not included. Literature has shown a significant link between PTSD, depression and SI (Sher, Braquehais, & Casas, 2012). It has been clearly shown that a history of PTSD increases one’s risk for depression, SI and behavior (Pompili et al., 2013). Due to this link, by excluding those with active SI, the generalizability of the study’s findings are significantly limited.
Some RCT’s have compared CPT to group therapy, a form of treatment that is commonly used at Veteran’s Affairs (VA). In 2011, Alvarez and colleagues conducted a RCT investigating CPT and its effects when compared to trauma-focused groups with veterans living in a residential PTSD program. The group treatment lasted 15 sessions with six to nine group members and two facilitators. Group curriculum included psychoeducation about PTSD, coping strategies used pre-military as well as during enlistment and exploring each veteran’s autobiography as it relates in a developmental context. Results of the study suggested the CPT participants had much fewer PTSD symptoms than those that participated in the trauma-focused groups. Both treatments reported similar levels of PTSD at intake by using the Posttraumatic Stress Disorder Checklist (PCL). CPT participants reported greater levels of “recovery” than those in the group setting. Although this was a study comparing CPT to another empirically supported treatment it can prove to be problematic since one is an individual treatment and another is a group treatment. It may be difficult to prove that the CPT had more impact because it could have been the attention each client received compared to a group setting. Therefore, this study cannot determine if it was the CPT curriculum helped or if it was the individual attention each client received. Another problem that this study presents is that the CPT was conducted in an outpatient setting and the group was inpatient. It would be okay to assume that the inpatient group participants had resources readily available outside of the group. One last thing is that the authors did not define “recovered” or “improved” for their study which makes it difficult to compare the findings to other studies.
Eye Movement Desensitization and Reprocessing Therapy. Even though EMDR is considered to have strong research support and is utilized in a number of settings to treat PTSD it has been considered controversial in the literature (Davidson & Parker, 2001; APA, 2006). EMDR (Shapiro, 1989) is a manualized treatment that contains parts of Cognitive Therapy used with eye movements to help with “reprocessing of the traumatic memories” (APA, 2006). EMDR is supposed to help clients recognize the connection between the traumatic memory and cognitive, physiological and affective responses. The basic premise of EMDR is that the traumatic theory has not been processed sufficiently which leads to PTSD symptoms (i.e. flashbacks). EMDR incorporates relaxation techniques along with having the client track the therapist’s fingers while speaking about the trauma. According to advocates of EMDR, information processing and integration of the memory is aided by the eye movements (Shapiro & Maxfield, 2002).

Multiple studies have shown that EMDR is effective when dealing with the symptoms of PTSD. In 2002, Shapiro and Maxfield discussed 20 different studies that support EMDR treatment in civilian and veteran samples. All of the studies revealed significant change that are maintained until follow-up. One study showed a 78% decrease in PTSD symptoms with a veteran population that was maintained at a check-in that occurred in the ninth month (Carlson, Chemtob, Rusnak, Hedlund, & Muraoka, 1988). As previously mentioned, EMDR has been considered a controversial treatment. The part that is mainly controversial is the part that has to do with the lateral eye movements used in the treatment. Multiple studies have shown that the eye movements do not contribute
anything to the treatment and treatments without the eye movement part have yielded similar results (Davidson & Parker, 2001; Spates, Koch, Cusak, Pagoto, & Waller, 2009). Other research has summarized that exposure is the primary reason that PTSD symptoms are reduced when using EMDR (Herbert et al., 2000). Even though EMDR is listed as an evidence based practice by the APA Presidential Task Force which indicates that it is considered a significant treatment for PTSD symptoms, the Institute of Medicine concluded that the evidence supporting EMDR was insufficient to determine the effectiveness of the treatment.

Conclusions and Other Treatments. Exposure therapies aim to help confront memories, thoughts and situations that have to do with a traumatic event. By treating the avoidance of certain things due to PTSD symptoms this treatment can lead to an improvement in symptoms. There is a great amount of literature that supports using exposure therapies with PTSD. The Institute of Medicine (2012) endorses the research done on exposure based therapies; prolonged exposure in particular. Goodson and Colleagues (2011) conducted a meta-analysis that concluded VA exposure based interventions showed the highest within-group effects sizes (Cohen, 1988, 2009).

Even though specific exposure therapies (i.e. PE, CPT, and EMDR) have been researched and supported more than others, there are other treatments that are currently undergoing research for the treatment of PTSD. Group therapy focused on trauma and other treatments such as Behavioral Action (BA) and Acceptance and Commitment Therapy (ACT), also have an exposure component and are gaining support from literature (IOM, 2012). Some research has indicated that BA and ACT may be helpful given that
both treatments address avoidance behavior which is a big characteristic in PTSD (Thompson & Waltz, 2010; IOM, 2012; Jakupcak et al., 2010). While different types of treatment have been noted to treat PTSD, all of them have limitations and exceptions to successful cases.

**Limitations of Treatments for PTSD in Veterans**

Although much progress has been made in the development of treatment for PTSD, many veterans do not fully recover after one round of treatment within the various psychotherapies. Due to this, many require more than one round of treatment (Wang, et al., 2005). Some studies have indicated that up to 50% of veterans treated for PTSD do not recover after treatment (IOM, 2008; Xenakis, 2014). It should be noted that those who drop out of treatment early are often included in the 50%, which can cause the percentage of those who do not recover to be over the actual amount. Those who do not recover after a round of treatment are said to be “treatment resistant” and often live with chronic PTSD (Xenakis, 2014). Those that are deemed to have been a “success” in treatment of their PTSD can differ in each study. Many studies consider a reduction of at least 50% of PTSD symptoms, but there can be variation between studies (IOM, 2012).

A meta-analysis was done by Bradley, Greene, Russ, Dutra and Western in 2006 that researched the difference in trauma types related to the different types of treatment. The traumatic events were separated into three categories: combat, sexual or physical assault, and mixed/other. This study indicated the type of trauma was linked with treatment response and post-treatment evaluation. The combat group showed the least improvement of all the categories.
Animal Assisted Therapy

The number of veterans being treated for PTSD was estimated at over 442,000 in 2008 (US Government Accountability Office, 2011). Many veterans have difficulty maintaining gainful employment and experience difficulties in social relationships (Steinbach, 2011). Veterans with a diagnosis of PTSD are at higher risk to die by suicide than those without (Pompili et al., 2013). While many interventions have been proved to be an effective treatment of PTSD, some may need more than one intervention and there are also those that do not seek treatment (Wang, et al., 2005). Some studies show that around 60% of those still meet criteria for PTSD after receiving treatment (Monson, Schnurr, Resick, Friedman, Young-Xu, & Stevents, 2006; Smith, Ryan, Wingard, Slyment, Sallis, & Kritzsilverstein, 2008). Due to these statistics it is important to consider supportive therapies and other strategies when treating a veteran diagnosed with PTSD.

Animal Assisted Therapy (AAT) has been used for those with physical and mental health issues in various inpatient and outpatient sites (Levinson, 1969; Kruger & Serpil, 2006; Rosetti & King, 2010). AAT is an intervention that utilizes animals that meet specific criteria that are an essential part of the treatment (the Delta Society, n.d., in Krueger & Serpell, 2006, p 23). Dogs are the most common animal used in AAT and can be trained to be used in partnership with mental health treatment. These dogs are called “Psychiatric Service Dogs” (PSDs; Esnayra, 1998). PSDs have been utilized in treatment for individuals diagnosed with PTSD, bipolar disorder, major depressive disorder, social anxiety, panic disorder, schizophrenia, and obsessive compulsive disorder (Hendrickson,
The dogs can be trained to initiate tasks that help the handler deal with their mental illness.

For veterans diagnosed with PTSD, PSDs can be trained to manage accompanying symptoms such as hypervigilance, flashbacks, nights, and physiological symptoms of anxiety (Esnayra & Love, 2012). To address hypervigilance, the PSD may alert the handler to others and their surroundings. To go along with this, if the PSD can remain calm, the owner can use this as a benchmark to show that they are safe in their current surroundings. PSDs can be trained to wake up an owner by licking their face and turning on the light if they are having a nightmare. PSDs can be trained to recognize physical signs of a flashback and can then bring the handler back to reality by having the veteran focus on their dog. PSDs can help veterans reintegrate into society. The PSDs need to be cared for and that is done by the handler i.e. feeding and walking. These needs may give the veteran a reason to leave home and achieve certain goals. These activities are not just used to reintegrate the veteran but also self-efficacy and map on to behavioral activation which is an effective treatment for depression (Kruger & Serpell, 2006; Jakupcak, Wagner, Paulson, Varra & McFall, 2010). In an early study, Esnayra and Love (2009) reported that 82% of their sample with a diagnosis of PTSD reported reduced symptoms following treatment with a PSD by their side.

**Hypothesized Rationale Underlying the Effects of PSDs.**

There have been attempts to utilize animals in treating those living with a mental illness since the 18\textsuperscript{th} century (Shubert, 2012). Corson, Corson, and Gwynne and Arnold (1975) studied dogs being introduced into a psychiatric facility that was associated with
Ohio State University. They concluded that the dogs helped to engage patients that were previously unresponsive, while improving the relationship between staff and patients. There has been some research into the benefits of AAT, specifically dogs, but little research on why it works.

**Essential Attributes of PSDs.** AAT literature suggests the primary theory explaining how it works in therapy is related to unique qualities of the animals (Kruger & Serpell, 2006). One hypothesis, the Biophilia hypothesis, was formulated by Wilson (1984). This theory concludes that people are attracted to living organisms due to genetics (Kahn, 1997). One of the main assumptions of the theory is that human safety is enhanced by the animals due to greater attention to cues in the environment (Kruger & Serpell, 2006). Animals can have keener senses, i.e. sight and smell, than humans and can alert the handlers to danger in the environment. This theory also suggests that humans discovered that animals have this capability, which in turn facilitated a bond between the two because it would increase the handler’s chance of survival. Serpell (1996) also suggested that humans tend to be calm and relaxed around animals because of the attention paid to animals in their environment.

**Psychiatric Service Dogs and Social Functioning.** One noted function of AAT and service animals is a sense of increased social connection (Kruger & Serpell, 2006). A study investigating risk factors for the development of mental illness in the veteran population was conducted by Seal, Metzler, Gima, Bertenthal, Maguen, and Marmar in 2009. The study surmised that an absence of social support can pose a significant risk for post-deployment mental health issues. There has been a significantly documented
connection between social support and PTSD. Lack of social support may lead to higher rates of PTSD and a longer course of the disorder, while having social support has been linked to improved outcomes (Swickert & Hittner, 2009; Tsai, et al., 2012). Utilizing PSDs may lead to an improvement in social functioning while providing a sense of social support; which can ultimately lead to enhanced responsiveness to treatment.

PSDs may provide a veteran with companionship that they can trust easier than others. Those with PTSD related to combat exposure may view the PSD as less threatening or triggering than other people (Yount et al., 2012). Service dogs have also been noted to help the rapport building process between a client and their therapist; which may contribute to longer time spent in treatment by the handler (Velde, Cipriani, & Fisher, 2005; Kruger & Serpill, 2006). Since many veterans with PTSD experience difficulty trusting mental health workers (Hodge et al., 2004), the PSD may provide a cushion (Kruger & Serpill, 2006). PSDs also help increase socialization with others outside of the therapeutic process (Rossetti & King, 2010). Those with service animals tend to be gravitated towards more in public than those without a service animal (Fairman & Huebner, 2000), which may lead to an increase in socialization for the handler.

One suggestion made by Triebenbacher (1998) suggested the bond between the animal and human is related to attachment theory. He suggested this because the most basic level of attachment theory relates to a human attachment and the need to identify a primary caregiver. Other theorists have used attachment theory further on in life to relate to adult social needs. Triebenbacher suggested that the need for socialization is not only with a primary caregiver (i.e. spouse) but with also supplemental figures (i.e.
animals/pets). The switch from a primary caregiver to a supplemental figure was noted by Winnicott (1951) as a “transitional object.” This transitional object helps relieve stress produced by separation from a primary caregiver (Cwik, 1991). Within this study, the transitional object could be a pet or PSD. Related to social needs, it is optimal within AAT for the PSD to take over the role as a transitional object and help the handler seek out other social relationships.

Robert Weiss (1974) introduced the theory of “social provisions.” This theory was produced to address the effects of social relationships on a person’s well-being. He concluded that people need social integration, reassurance of worth, guidance, reliable alliance, and opportunities to be nurtured in order to achieve optimal well-being. AAT literature has cited his theory to discuss the use of animals to improve health and functioning in regards to socialization (Kruger & Serpell, 2006).

**Physiological Effects of Psychiatric Service Dogs.** To go along with dogs to treat psychological illness Cole, Gawlinski, Steers, and Kotlerman (2007) conducted research to look at the physiological effects of AAT. Their study sample was made of people living with advanced heart failure. The group was admitted to a cardiac care unit and randomly separated into three groups: a visit from a hospital volunteer, a visit from a service animal, or treatment as usual which meant no visit. Each of the visits lasted 12 minutes and adhered to guidelines (i.e. the participant and the dog had to stay in the participant’s room instead of going outside for a walk). The researchers tested heart rate (using a monitor by the participants bed), blood pressure, neurohormone levels (epinephrine and norepinephrine were measured using blood), and a self-reported anxiety
measure. The results of the study indicated that a visit from a dog produced lower blood pressure, neurohormone levels, and anxiety levels compared to visits from a volunteer or treatment as usual. Multiple researchers have indicated that heart rate and blood pressure usually decrease when people interact with animals (DeMello, 1999; Friedmann et al., 1980, 1983).

There have been multiple theories that have utilized the foundations to explore the physiological basis of the human-animal bond. Olmert researched (2009) the bond between animals for a significant amount of time. He explained that the basis of the bond consisted of a biological component. In her book *Made for Each Other*, she refers to several studies in which oxytocin appears to contribute to the bond that forms between humans and animals. Previous research on oxytocin and how it contributes to a stronger attachment between animals and humans was based largely on studies with rats (i.e., Pederson, Ascher, Monroe, & Prange, 1982). This research contributed to the investigation of the role of oxytocin within other attachments among other mammals.

**Cognitive Behavioral Theories related to PSDs.** In 1985 Brickel proposed that learning theory may contribute to explaining how animals may help reduce anxiety in humans within a therapeutic relationship. Related to learning theory, enjoyable activities (i.e. playing with or helping with animals) are likely to be repeated. On the other hand, unpleasant activities (i.e. exposure therapy or difficult trip to the doctor’s office) are likely to be avoided. Brickel proposed that by introducing a pleasurable buffer may lead to increased engagement in activities that are avoided by the handler (i.e. going to
therapy). Brickel’s theory seems to be a likely hypothesis to explain optimal engagement in recovery when AAT is used along with the traditional intervention.

Other researchers have hypothesized that the benefits associated with PSDs can be related to cognitive and social cognitive theories (Kruger & Serpell, 2006). The reason behind this suggestion is that animals can help promote goals agreed to in cognitive based therapeutic interventions. In particular, caring for an animal has been linked to increased self-efficacy.

The trauma that combat veterans often experience involve other people (i.e. combat, military sexual trauma (MST)). Yount and colleagues (2012) suggested that one reason a PSD is useful relates to the incompatibility between dogs and the trauma. This means that dogs may be seen as less threatening and less likely to generate PTSD symptoms. They also surmised that dogs may provide a sense of security for the veterans because of their ability to warn the veteran of impending danger. Fine (2000) noted that animals provided “honest” and immediate responses wen experiencing pleasureable and unpleasureable stimuli. They could then be used to help individuals that face difficulties when interacting socially (e.g. responding nicely to kind people and avoiding people exhibiting aggressive behavior).

**Training for Psychiatric Service Animals.** The Warrior Canine Connection (WCC), opened in 2008, was one of the first dog training programs for veterans with PTSD and Traumatic Brain Injury. WCC was first established at a residential treatment facility for PTSD that was operated by the Veterans Affairs. Later on, this program was established at Department of Defense (DOD) medical center. WCC is one of the few
programs providing evidence of the advantages of using PSDs to help treat PTSD in veterans (Yount, Olmert & Lee, 2012). WCC utilizes the veterans to help train their PSDs and are personally responsible for them. The authors of the study suggest that veterans that learn the skills (i.e. patience) to help train the PSDs, will also gain tools to help manage their PTSD symptoms (i.e. improving social interactions, manage anxiety). After the veterans help train the PSDs, the animals are then given to a veteran in the residential program. From 2008 to 2012, 200 veterans have participated in the program. Five PSDs were placed with veterans and two veterans became certified dog trainers. There are other programs that focus more on training dogs just to help manage PTSD symptoms. One program, that I will be specifically studying, is Capital City K9.

Capital City K9 is a non-profit that trains service dogs to help veterans manage their PTSD symptoms. They have expanded to give dogs to others with PTSD that are not veterans, but they do have a program that is specific for veterans and their needs. They are a family based program that works to help everyone in need of a service animal (Capital City K9, 2018). The program is also partnered with the Front Street Animal Shelter. They have a motto on their website which states “saving two lives at a time,” which is in regards to the partnership. In some cases they utilize animals rescued from the shelter to train as service animals. Capital City K9 is unique because of how they conduct their service dog training. The dogs they rescue go through rigorous training and live on their grounds. All of their dogs have passed their basic and advanced obedience course. AKC Canine and Urban canine good citizens courses, public access, and are tasked trained to the specific needs of the recipient (Capital City, K9, 2018). The unique part of
their training is when veterans seek to train an animal they already own to be their PSD. This training is conducted in six phases: basic and advanced obedience, AKC canine and urban canine good citizen courses, public access, and training specific to the needs of the owner. The animals also live with the owners instead of staying with the trainers. The training is done with the animal and the owner. The staff give the owners the tools to train their animals. Training is conducted with staff but it is the owners who are responsible to interact with the animals. The reasoning behind this is that it helps strengthen the bond between the animal and owner and it also gives the owners the tools to continue training at home. When one trains their animal through them, there are given complimentary training for as long as they have the animal.

**Conclusion**

There have been many studies on psychiatric service animals but not many that are specifically for veterans. Most of the previous studies observed symptom management. My study was also able to get different veteran’s perspectives on having a psychiatric service animal. Within this study I was able to unpack the reasons and motivation behind each veteran’s want/need for a psychiatric service animal. I was able to get information through a qualitative process that could not have been done sufficiently using a quantitative process. The veterans I interviewed shared why they got their service animal, what they expected from their service animal, and how the service animal changed their life. The veterans also disclosed some of their experiences with the training. The veterans I interviewed shared what their experience was like participating in the training and the parts they liked/disliked about the training. This information can be
used to help improve psychiatric service animal training for veterans in particular. The program I studied was unique in that it was one of a few training programs that involves the handlers in the training. I believe this information will help in developing more training programs like the one offered by Capital City K9, where the PSD is trained with the handler. This information can be used to further the study of programs like Capital City K9 and the effects on the veterans that participate in their training.
Chapter 3

METHODS

The purpose of this research is to see if psychiatric service animals would offer an additional form of treatment for veterans with PTSD. The study was conducted in a one-time qualitative semi-structured interview. Specifically, the research will determine if the psychiatric service animals are perceived by the veterans as beneficial to their recovery from PTSD and related symptoms. Participants were recruited through the Capital City K-9 program that trains service animals for veterans. Those participating received a summary of what the study wanted to achieve, provided consent, and completed a qualitative questionnaire that had to do with the training of the animal and its benefits. Participants provided information needed for the study, which included items about their time in service. Participants were asked for basic information that had to mostly do with their time in service.

Participants

Participants in the study were veterans seeking a service animal through the program at Capital City K-9. Capital City K-9 helped recruit veterans for this study. Participants were informed that they were not required to participate in the study and that it would not affect their training and/or receiving a dog with Capital City K-9. Participants received a five dollar Starbucks gift card for participating. In order to participate in the study, veterans had to have participated in the dog training at Capital City K-9. Flyers were posted in the training area of Capital City K-9 and the trainers
mentioned the study to their different training classes. Twelve veterans came forward to participate in the study.

Protection of Human Subjects

Participants completed a qualitative semi-structured interview given by the researcher. Information is password protected on the researcher’s computer and the audio recordings of the interviews are kept locked in the researcher’s safe. All of the questions were personal and some were sensitive in nature which could create difficulty when answering. With that being said, participants were asked to answer each question truthfully. This study included steps to protect participant’s privacy, minimize their risk, and protect them from any adverse effects due to participating in the study. Before participating in the study, the participants read and acknowledged the letter of implied consent. The implied consent statement detailed the nature of the questions and any risk involved and how the risks would be mitigated. It also included that participation was not mandatory in order to participate in the Capital City K-9 training program. My human subjects protocol number is 17--18—033 and was approved on 01/22/2018.

Design

This study was an exploratory study that utilized a qualitative semi-structured interview guide. This study was supposed to measure the perceived benefits of having a psychiatric service dog for veterans with PTSD. Data collection occurred at the Capital City K-9 site in a private room in order to protect the participant’s information. The only data collected was answers to a qualitative semi-structured interview with questions
surrounding the veteran’s service and their perception of the benefits of having a psychiatric service dog.

**Measures**

**Qualitative Semi-structured Interview.** The qualitative semi-structured interview guide first included questions that have to do with the participant’s military service. It included status (Active duty, retired), branch, motivation to join, branch and deployment history. Deployment history can be to combat and non-combat zones. The semi-structured interview guide had questions related to the Capital City K-9 program and their participation in the program. Questions included motivation to get a service dog and what the participant’s expectations were when getting a service dog. There were specific questions on the participant’s experience during the training of their service dog. Participants discussed their experience and what were the best parts of the training as well as the most challenging parts of the training. There was questions specific to the service dog and how they have impacted the veteran’s life. Finally, they were asked how they got their specific animal (whether they brought it or were supplied with one by the agency) and how the animal has helped.

**Procedure**

**Overview of Capital City K-9 Training**

There was only one requirement to participate in the study and that was that the participant was in the process of or had received a service dog through Capital City K-9. Participants in the program can supply their own dog to be trained or can be matched with one through Capital City K-9’s partnership with the local animal shelter. Capital
City K-9 is a family organization with a mission of supplying anyone in need with a service animal. Capital City K-9 initially trained service dogs for veterans but now trains them for anyone in need. Capital City K-9 has AKC evaluators on staff that can certify the dogs who are trained. Capital City K-9 is known to rescue dogs from local shelters in the Sacramento area. The dogs they have live in their facility and go through a rigorous training regimen and socialization. All of the service dogs provided by Capital City K-9 have passed their basic and advanced courses in obedience, AKC Good Citizen courses, and are trained to the specific needs of the handler they are matched with. The other training Capital City K-9 provides is an owner trained service dog course. The difference between this one and the previous one is that the dog stays with the owner instead of living at the training site. This course is given in six different phases. The six phases are: Basic and advanced obedience training, AKC Canine and Urban Canine Good Citizen training, training on public access, and training on the specific needs of the handler.

**Data Collection Procedure**

Participants were sought out at the training site of Capital City K-9. Participants were scheduled, at their convenience, to answer the questions to the survey. Data collection was completed at Capital City K-9’s training site.

**Data Analytic Plan**

The respondent’s answers to the qualitative questionnaire have been evaluated in order to be able to make sense to the researcher and also to people who read the research. The data was examined and put into different categories and/or themes. Common themes were discovered in the answers and were combined with other like answers. The answers
were organized in a manner that common interpretations/themes are grouped together. After they were organized together the researcher made sense of the common themes and their meanings. The researcher then discovered how common themes fit into the context of the study.

**Hypotheses**

**Hypothesis 1: Participants of the program will report an Increase in their quality of life due to having a Psychiatric Service Dog.** To test this hypothesis the researcher will evaluate answers given by participants to the qualitative semi-structured interview. The researcher will search for common themes as to if the Psychiatric Service Dog had a positive and/or negative impact on the participant’s life and PTSD symptoms.

**Hypothesis 2: Participants of the program will show disclose a decrease in isolative behaviors.** This will be tested by the researcher by evaluating answers given by participants to the questionnaire. Participants will be asked how the service dog has helped.

**Hypothesis 3: Participants of the program will participate in the training and increase their socialization skills:** Researcher will look for themes in the participant’s answers to the questions that have to do with their experience of training. If socialization is discussed, common themes will be looked for that that have to do with improvement, or lack thereof, in the quality of the participant’s interpersonal interactions.
Chapter 4

PRESENTATION OF DATA

Demographic Information

Basic demographic information was collected at the beginning of each semi-structured interview. There were four questions for demographic information related to each participant’s service in the military. Out of the eleven veterans interviewed, five served in the Army (42%), two served in the Marines (16.6%), three served in the Navy (25%) and two served in the Air Force (16.6%). Eight of the veterans received an honorable discharge and four were medically discharged. The participants were asked why they joined the military and all of them gave varying answers and some gave multiple answers. One participant said they wanted to join since they were a little kid, three mentioned educational benefits, four answered that they wanted to serve their country, one said that they were not living a fulfilling life, one said they joined due to a family tradition, one disclosed that they wanted to travel the world, and four said it was to get training from the military. Out of the twelve veterans interviewed they had a total of twenty-three deployments. There were ten deployments to Iraq, ten deployments to Afghanistan, one to Kuwait, and one in the first Gulf War with Iraq.

Hypotheses

There were three hypotheses for this study. The first was that participants of the program would report an increase in their quality of life due to having a psychiatric service dog. The second was that participants of the program would disclose a decrease in isolative behaviors. My third hypothesis was that participants of the program would increase their socialization skills while participating in the program.
Qualitative Interviews

Semi-structured face-to-face qualitative interviews were conducted with twelve veterans participating in the PTSD service dog training at Capital City K9. This study was focused on the perceived benefits of having a psychiatric service animal by the veterans that participated in the study. Veterans were asked a series of six main research questions over a 30-minute face-to-face interview conducted to answer the questions. Several themes arose throughout the interviews such as what were the best/challenging parts of the training and how the service animal changed their life. There were varying answers to other questions such as expectations concerning the service dog, overall experience with the training and how the participants were matched with their animal. Every veteran mentioned the camaraderie they felt in the training due to every person there being a veteran. Many mentioned they were seeking that same sense of belonging since they were discharged. One described it as “Even though we are not in the military anymore, and I did not serve with any of the people in my training, I felt an instant connection, like they had my back.”

Service Dog Expectations

Each veteran discussed in their own words what they expected from their service dog. A common theme throughout each veteran’s answer was they wanted to get their dog training to assist them with their mental health while being able to take them places with them to feel safer in their settings. Ten of the twelve veterans interviewed mentioned specific symptoms they wanted help dealing with. One veteran mention their depression always felt like a huge weight on their shoulders. “It was hard for me to get out of bed
before I got my dog. I always felt down.” The other two veterans said they approached
the program with an open mind, while one of the two veterans also said he did it for his
daughter. He told me “My daughter is my world and I did not spend enough time with her
because of my drinking. Now that I have positive ways to cope with my feelings I do not
resort to drinking anymore.” While speaking with all twelve veterans it was clear that
they wanted an animal to assist with some aspect of their mental health. Some mentioned
specific emotions they wanted to deal with while others spoke of places they wanted to
go. One veteran disclosed that they had a lot of anger issues. “I used to get mad at
everything. I was mad at life. Now if I start to get angry or anxious my dog knows what
to do to comfort me.” Many veterans mentioned they wanted to be able to take their
service animal to places where they usually could not go, while two specifically
mentioned the animal to help deal with emotions they have while in the public. One
veteran mentioned that they have to deal with stigma because they are young and have a
service animal. “People look at me funny when they see me with a service animal. If only
they knew how much this animal has helped me.”

Training Experience

Nine out of twelve veterans liked the training, while one of those nine did not like
the training in the beginning. Three out of the twelve veterans expressed some
ambivalence towards the service animal training. Some did not know they would
participate in the training. “I thought I was going to be given a dog already trained. Once
I started doing the training I understood why we had to participate.” One of the three
mentioned it was okay and did not expand on that answer. Another one said the training
was okay because they did not know that they were going to have to work much but later became more invested. Respondent #1 said “I didn’t want to do the training but after my dog learned commands I became more invested.” One veteran thought about becoming a trainer for a similar program. “This program has helped my brothers, sisters and me. I would love to give back.” The third did not like it at first but became more invested due to the bond with his dog becoming stronger and felt success in the program reflected their ability as a veteran. “I thought my bond with my dog could not get better. During the training my dog loved the positive reinforcement and liked to make me happy.” Respondent #2 noted “I take pride in the things my dog can do. I feel it is a direct reflection on me because I trained them. My dog has changed my life for good!”

**Best Parts of the Training.** There were a couple of common themes when inquiring about the best parts of the training for the participants. Some of the veterans gave one answer, while others gave multiple. The most common themes were connecting with other vets (eight total), and seeing their animal learn new things in the training (seven total). Respondent #5 referred to the camaraderie he experienced “All the people in the training were brothers and sisters to me; not strangers. Even though we did not serve together we all made sacrifices for the greater good.” Two others mentioned bonding with their animal as the best part of the training and two others mentioned participating in the training as one of the best parts of the training. One veteran spoke of the bond they had with their dog, “I did not think my bond could get any stronger with my dog because it had already helped me in so many ways. After going through the sessions we got even closer.” I expected a couple responses that had to do with
camaraderie but not this many. Most veterans I have talked to have said they would do their time in service over even though it included rough times. I have asked some veterans why they would do it over and most have answered because of the camaraderie. Many say they miss that bond they had with their brothers and sisters in the military. Some sought out other veterans in the program to socialize with, “I have been trying to connect with other veterans where I live but I have not seen many. This training helped me connect with vets that are living with limitations like mine. It helped me feel like I was not alone.” This program helps maintain camaraderie while learning a new skill. Respondent #9 stated “Even though I just met some of these other vets I felt an instant connection because we all understand the sacrifices we have made.” This training is liked by most veterans because it gives them a sense of purpose they were lacking since being discharged from the military. Respondent #9 stated “I get to do something that is beneficial to me while having fun.

Challenging Parts of the Training. There were many different answers when participants were asked about challenging parts of the training. The dominant answer that was given by five participants, was dealing with frustration. One respondent noted “Even though it was nice to see other dogs excel, it became frustrating if I felt my dog was falling behind.” The different reasons mentioned for the frustration were seeing other dogs progress faster than their own and feeling like their dog was not paying attention to them. They all attributed it to their time in the military and needing to be perfect or else it could get someone killed. One veteran confided “If I did not do my job someone could die.” It was hard for some to accept praise if they felt like they did not complete the task.
Two stated that the time needed to dedicate to training was a problem due to having work and other commitments. Two stated getting to training was difficult because of their PTSD symptoms. One mentioned that the schedule reminded them of the mundane tasks in the military and they did not want to be reminded of their time in the military.

Respondent #7 concluded, “The set schedule made me think of the military. They told us when to eat, sleep and shit. Although, if I missed a training session, I could make it up.”

One mentioned that they were nervous because they had no experience in training dogs and thought they would fall behind. One mentioned that it was difficult to keep up the training at home even though they needed to maintain the training in order for their dog to make progress. Respondent # 5 said “I had to schedule my day so I did not forget to do anything. I always fit in time to train with my animal.”

**How the Service Animal Changed Their Lives.** Each veteran was asked how the service animal has positively/negatively affected their lives. Some mentioned one thing that has changed positively and some mentioned multiple. There were only a couple of responses to the negative questions. The answers to the negative impact included time commitment and cost. They added that even though they said it was negative that it is all worth it due to the positive changes the dog has helped with. One veteran spoke of his money issues with me, “I am on a fixed income which makes it hard to take care of my dog but I have found multiple agencies willing to help with the dog’s care.” The answer that was given by eight of the veterans was that they were able to participate in activities that could not before due to their PTSD. One veteran mentioned, “I can now take my daughter to the park without looking over my shoulder.” Five veterans disclosed that the
service dog has helped them manage their symptoms. One veteran confided in me “I know I will always live with some sort of PTSD, but my dog has helped me deal with the symptoms so I do not avoid them.” Three veterans said that it helped regulate their emotions. A veteran said, “Sometimes I just snap for no apparent reason. Now I have fewer outburst than before.” The veterans said they do not have as many outbursts as before and they attributed it to their dog. Two veterans mentioned that they are going to attend school because they have their animal to accompany them. They both said that they believed they would not be able to go back to school. One veteran said “I felt like I had no meaning to my life because I just stayed at home. Now I am going to go back to school and make something of myself.” One veteran mentioned that the dog will help be a positive coping mechanism for themselves which will allow them to not consume alcohol anymore. Lastly, two disclosed that the dog has helped them confront their suicidal ideation and deal with it in therapy. One mentioned that they had never brought it up because of the thought that there might be repercussions. One respondent noted “I used to think about ending it all until I got my dog. Their unconditional love is healing.” After they got their dog they said it gave them the courage to speak up and seek help. At the end of the interview one vet exclaimed, “I am a changed man because of this dog!” I thought these answers were very impactful because each veteran has mentioned different ways they were helped by the dog. Each part of these veterans’ lives that the animal has helped with could have led to suicide. Two directly mentioned suicidal ideation but I believe more have lived with some degree of suicidal ideation.
Chapter 5
DISCUSSION

Summary and Implications

Face-to-face qualitative semi-structured interviews were conducted with twelve veterans that participated in the PTSD service dog program at Capital City, K9. The objective of the study was to inquire if there were perceived benefits for veterans that participated in the PTSD service dog program at Capital City, K9. The three main topics I concentrated on were: if the participants of the program reported an increase in their quality of life due to having the psychiatric service animal, if participants reported a decrease in isolative behaviors, and if the participants in the program improved their socialization skills.

The information that was gathered from the twelve interviews supports my hypotheses. Participants all disclosed ways that their service dog has helped them. Each veteran disclosed unique ways that they have been supported by their service dog. The common theme within all of their answers is that their quality of life significantly improved. Most of the participants had a new outlook on life and were participating in activities that they never thought they would do again because of their service animal. Every veteran’s quality of life was affected positively in different ways. Participants disclosed a decrease in symptoms and new abilities to regulate their emotions. A couple of veterans even disclosed that they did not have any more suicidal ideation due to having their animal. One mentioned their life was improved because of not needing to resort to
substance use. After that veteran reduced their alcohol intake their overall health improved which helped improve their mental health.

Every veteran was affected positively in some way by having their service animal. One of the ways that every veteran was positively affected was that they all reported a decrease in their isolative behaviors and were leaving their residence more. Participants reported an increase in participation in activities in various ways. Some of the veterans said they were just leaving their house more and that was a big step for them. Other participants said they were going to be more productive and sign up for college. All participants said that they wanted to explore more and not isolate themselves from the world.

By participating in the training a lot of the veterans worked on their socialization skills without even knowing. Many veterans disclosed that one of the main reasons they chose the program was to be around other veterans. Many spoke of missing the comradery that they had in the military. When the training became difficult veterans spoke of supporting each other during the training. This was a great development and training tool to help with socialization skills. Each veteran had their own story but they could all identify with each other due to having served in the military. One veteran said “This is the first time I feel like someone understood me.” He associated it with the good and bad times in the military. A lot spoke of losing brothers and sisters overseas. The way they spoke of it was honoring to those that passed. The participants told stories from their service without hesitation, because they felt understood and could identify with the others.
After the data was analyzed, the author compared their findings to existing literature in order to understand what future research is needed. There were few similarities between the interviews and the literature. Prior research has been done on Animal Assisted Therapy (AAT) but most studies were quantitative. A study done by a doctoral candidate (Marshall, 2012) was to evaluate current literature and introduce scaling questions to see the positive effects of psychiatric service dogs for veterans with PTSD. The questions in the quantitative studies had those working with animals answer different self-report inventories i.e. Beck Depression Inventory, but did not seek participants input on how the psychiatric service animal helped them. Another study researched the regular care of veterans and then compared it to regular care plus a service dog. Researchers utilized the PTSD checklist as their main research tool (O’haire, 2018.). There needs to be more qualitative data taken from studies that utilize AAT to address the reasons that psychiatric service dogs help. My study added qualitative data for the subject which can be utilized for future research.

**Implications for Social Work**

Through the qualitative semi-structured interviews of this study found that there are perceived benefits to using a psychiatric service animal. I believe that this is an under-utilized intervention. A psychiatric service animal could be of great assistance to those that are in the process of therapy and/or other interventions i.e. an AAT could join its handler while they complete an in-vivo exercise while going through prolonged exposure. In my semi-structured interviews there were not many complaints and they were very miniscule. The participants were thankful for their psychiatric service animal because it
has changed their lives for the better. I believe it could also be utilized at a mezzo level. This could be done through a partnership with an animal shelter. An agency can have an unlimited supply of animals through the partnership while also helping prevent animals from being euthanized. At a macro level, I believe there should be more funding for programs like Capital City, K9. These programs provide veterans with tools to succeed on their own. Once you have your animal trained through Capital City, K9, the company provides refresher training at no cost to the participant. These programs would also be able to charge veterans less money if they had a funding stream.

Psychiatric service animals can be used in a multitude of ways. This study could help future research of the use of psychiatric service animals. This study could contribute to information to other settings as well. Many of the psychiatric diagnoses that veterans live with are the same as the civilian world. This study could further research to use psychiatric service animals in psychiatric and medical settings. This study may impact the type of research that is done due to it being of a qualitative nature. Quantitative research gives one numbers to compare but qualitative research gives the researcher a chance to study a topic in a personal way due to the participant answering questions not just choosing numbers on a scale. Gilgun (1994) proposed that there are remarkable similarities between qualitative research and social work practice. When qualitative data is used the answers are not always black and white. A person may score high on a depression scale but that does not necessarily mean they are in a bad place. With qualitative, one can study data and understand why people are answering the way they do and how it may influence their answers.
**Recommendations for Future Research**

There needs to be more research on psychiatric service animals for veterans. I believe there should be a study that includes quantitative and qualitative questions, to be able to go more in depth and allow participants to expand on their answers. There needs to be a study on programs that let the handler train their animal i.e. Capital City, K9, and programs that train animals and then give them to the handler. This research could show whether or not it is beneficial to have the veterans train their own animals. There are many veterans that utilize psychiatric service animals that may have benefitted more from being included in the training. The twelve veterans I interviewed disclosed how participating in the training helped them. Lastly, I believe there needs to be more studies on psychiatric service animals for veterans. I believe the last study should consist of veterans going through therapy w/o an animal and those going through therapy with the animal. I believe this would help show the benefits of having a psychiatric service animal, such as attending more therapy sessions.

**Study Limitations**

The qualitative semi-structured interviews were conducted with twelve veterans with a diagnosis of PTSD. I believe this is a limitation because it does not account for those that do not have a service animal. Those that may not have one and seclude themselves from the public could be different in many ways. The veterans I did interview could have already been dealing with their symptoms with other ways i.e. therapy, but is attributed to their service dog. The study was conducted with a limited amount of time. I believe if I had more time I would be able to see the progress over years. I did not do an
interview before the PSD training so I did not have a baseline of the veteran’s symptoms to compare to after the training was completed. It may have helped to utilize some quantitative data i.e. Beck Depression Inventory, before, during and after the study. The twelve veterans I interviewed all agreed to be interviewed for my study. I believe that this played a role in the answers I was given. The veterans that participated were more likely doing so because they have enjoyed the training and found it beneficial. The ones that did not want to participate may have seen the program in a different light. I did not expect there to be as much literature on PSD’s. I found literature on the utilization of PSD’s for some ailments that I did not attribute to the PSD. Garcia (2016) noted the ten most common service dog specializations are: Brace and mobility support dogs, Autism assistance dogs, service seizure response dogs, hearing dogs, medical alert dogs, allergy alert dogs, medical assistance dogs, visual assistance dogs, wheelchair assistance dogs, and psychiatric service dogs. According to this information dogs can be trained to do many things. Their assistance is invaluable when assisting someone that needs the dogs help. This shows that dogs can learn to do different things and are an effective aspect of treatment with the populations I previously noted. There was literature on PSD’s in the medical setting to help manage blood pressure. According to an article published by UCLA Health (2018), “The simple act of petting animals releases an automatic relaxation response.” This is one of the reasons why we need to study PSD’s for utilization in other practices such as cardiovascular health.
Summary

Psychiatric service animals have helped the veterans I interviewed improve their quality of life, decrease their isolative behaviors and increase their socialization skills. This program has shown to be effective due to the positives the veterans have disclosed but also helping this underserved population. This unique program also helped veterans in indirect ways. By having the veterans actually train the animals it gave them a sense of worth they had lost since serving in the military. All of the participants have a new outlook on life due to this program and their psychiatric service animal. According to the Veteran’s Affairs website (2017) 20 veterans die by suicide every day. By accomplishing what this program has for the participants it has decreased their risk for suicide. This program was a vital part in each veteran’s recovery and could benefit many more if they participated in the program.
j27 August 2017

To whom it may concern,

We (Capital City K9) are allowing Andrew Martinez to conduct his thesis with our company. We will be allowing him to interview our Master Trainer and ask him any questions he feels necessary. We will be also sending his info out for him as well as handing out his flyer. If you have any questions, point of contact is jvaldez@capitalcityk9.org

Master K9 Trainer
Capital City K9
Appendix B.

PARTICIPATION CONFIRMATION / LETTER OF INFORMED CONSENT

I. Benefits of a psychiatric service animal for Veterans with PTSD and other mental health diagnosis

My name is Andrew Martinez and I am a second year graduate student in the Division of Social Work program at California State University, Sacramento. I would like to invite you to participate in this research study because your opinion matters. The goal of this study is to identify the benefits of having a psychiatric service animal for veterans with PTSD and other mental health diagnosis.

If you choose to participate in this study, your participation will consist of being digitally recorded in an interview of approximately 30 minutes in length. A five dollar Starbucks gift card will be provided to participants. However, the knowledge gained from this study may benefit the veteran mental health community by improving access to services and therefore improve the quality of mental health service utilization for this population.

There minimal risk to participation in this study. Your identity will only be known to the researcher and will remain anonymous at all times. The information you disclose in the interview will be kept confidential. Information collected will be reported in aggregate form as well as the common themes emerging from the data. Among the measures taken to ensure confidentiality are password protected computer with anti-virus software. Password protected audio recording device will be used. Hard copied data (if any) will be maintained in a safe, locked location and will be destroyed by January 2021 after the study is finalized, together with all electronically collected data.

You are free to withdraw your consent and discontinue participation at any time. Your participation indicates that you have read and understood the information herein provided and imply your consent to participate in the study as well as consent to be digitally recorded.

I am highly appreciative of your time. Please feel free to contact Andrew Martinez at (209) 251-5819 or AndrewMartinez@csus.edu. You can also contact Dr. Jennifer Wolf, the advisor to this project, at (916) 278-7173, or Wolf@csus.edu. For questions about your rights as a participant in this research study, please call the Office of Research Affairs, California State University, Sacramento, (916) 278-5674, or email irb@csus.edu.

I have read the descriptive information on the Research Participation cover letter. I understand that my participation is completely voluntary. My participation implies consent. I have received a copy of the Research Participation cover letter and I agree to participate in the study.

If you have any further questions you may contact me. Or, if you need further information, you may contact my thesis advisor:

Jennifer Wolf, Ph.D., MSW, M.P.H
C/O California State University, Sacramento
916-278-7161
Seeking Participants for Research Study

My name is Andrew Martinez. I am a combat wounded veteran who is currently studying for my Master’s degree in social work. I am seeking volunteers for my thesis on Service animals for veterans with PTSD and other diagnosis.

If you decide to take part in the study, you would participate in a 30 minute one-on-one interview. Your study data would not be connected to your name; Everything is anonymous. Participants will receive a five dollar gift card for Starbucks for participating.

**Requirement:** Participants must have participated, or are currently participating, in the PTSD service dog program at Capital City K9.

If you have any questions and/or wish to participate please contact me at (209) 251-5819 or AndrewMartinez@csus.edu. If you need further information, you may contact my thesis advisor:

Jennifer Wolf, Ph.D., MSW, M.P.H
c/o California State University, Sacramento
wolf@csus.edu
Appendix D.

Interview Questions

Military Status:
Branch:
Why did you join?
Why did you choose your branch?
Deployment history:

Program Specific

Why did you decide to get a service dog?

Service dog expectations:

How was the experience participating in the training?

What were the best parts of the trainings?

What were the most challenging parts of the training?

How has the service animal changed your life? Positively? Negatively? How did you get matched with your animal?

How has the service animal helped you?
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