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Relationships, Socialization and Combat Veterans: The Impact of Receiving and Training a Service Dog

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Abstract

The impact of posttraumatic stress disorder (PTSD) on our combat veterans and their families is extensive. Without support, negative outlook, lack of trust in others, negative perception of self, and lack of trust in one's judgment persist. The support of loved ones is essential to treatment adherence and rehabilitation (Meis, Barry, Kehle, Erbes, & Polusny, 2010). The Veterans Administration (VA) has been using canines to assist combat veterans in reintegrating into civilian life, and most currently as a part of psychological therapy (Rubenstein, 2012). This research examined the impact of receiving and training a service dog on combat veterans with PTSD using Stake's collective case study model. Interviews were conducted with fifteen combat veterans diagnosed with PTSD participating in a 14-week program for receiving and training their own service dog. Anger symptom severity decreases were reported, which had the residual effects of improved relationships and socialization.

Keywords

Posttraumatic Stress Disorder, Anger, Relationships, Socialization, Service Dogs, Qualitative Study, Multiple Case Study

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Relationships, Socialization and Combat Veterans: The Impact of Receiving and Training a Service Dog

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The impact of posttraumatic stress disorder (PTSD) on our combat veterans and their families is extensive. Without support, negative outlook, lack of trust in others, negative perception of self, and lack of trust in one's judgment persist. The support of loved ones is essential to treatment adherence and rehabilitation (Meis, Barry, Kehle, Erbes, & Polusny, 2010). The Veterans Administration (VA) has been using canines to assist combat veterans in reintegrating into civilian life, and most currently as a part of psychological therapy (Rubenstein, 2012). This research examined the impact of receiving and training a service dog on combat veterans with PTSD using Stake's collective case study model. Interviews were conducted with fifteen combat veterans diagnosed with PTSD participating in a 14-week program for receiving and training their own service dog. Anger symptom severity decreases were reported, which had the residual effects of improved relationships and socialization. Keywords: Posttraumatic Stress Disorder, Anger, Relationships, Socialization, Service Dogs, Qualitative Study, Multiple Case Study

Introduction

Symptoms of PTSD have a formidable impact on the lives of veterans, these include re-experiencing, traumatic events, physical arousal which can include sleep disturbance, irritability, anger, and rage; difficulty concentrating, hypervigilance, anxiety and dysfunctional cognitions (American Psychiatric Association [APA], 2013; Whealin, 2015). Avoidance symptoms limit where they can go, what they can do, which isolates them from others. Emotional numbing makes it difficult for the veteran to experience love. All of these symptoms negatively affect interpersonal relationships. Friends and family struggle to understand these behaviors and respond in ways that add to the problem rather than help in the healing process. In failing to provide needed support, the veteran becomes even more isolated (Whealin, 2015). Without support, negative outlook, lack of trust in others, negative perception of self, and lack of trust in one's judgment persist (APA, 2013). Negative mood is persistent, as well as experiencing feelings of fear, anger, guilt, and shame (APA, 2013). Individuals may no longer participate in activities they had previously found enjoyable. Experiencing a detachment from others, inability to feel joy, satisfaction, emotional intimacy, empathy, or sexual attraction is commonplace. Rage, aggression, or uncontrolled explosive episodes may happen with little to no provocation. Impaired executive functioning processes such as emotional regulation may lead to problematic interpersonal relationships (APA, 2013). Veterans and their families experience higher rates of divorce, child abuse and neglect, and homicide (Watson Institute for International and Public Affairs, 2015), and domestic violence (National Council of Child Abuse and Family Violence, 2015).

Living with PTSD has many challenges. The impact of multiple deployments on the veteran is seen in war borne physical and psychological disabilities. Family and friends must deal with their absence, grieve their deaths, or navigate living with the person who comes

home forever changed (Coll, Weiss, & Yarvis, 2011; Watson Institute for International and Public Affairs, 2015).

The stigmatization associated with mental health issues for those in the military keeps many from seeking treatment. The military culture endorses invincibility and regards mental illness as a weakness (Hoge, Auchterlonie, & Milliken, 2006). The trust veterans have built with military comrades does not carry over to civilians. Understanding military culture becomes central to working with veterans (Coll et al., 2011).

The military has many animal-assisted therapy (AAT) programs; however, there have been no published empirical investigations of the effectiveness of these programs (Knisely et al., 2012; Rothbaum, 2013). Given the prevalence of PTSD symptoms and diagnoses in veterans, the small percentage of those with this disorder seeking treatment, and the high dropout rates for PTSD treatments, research for alternative treatments is needed (Coll et al., 2011; Fisher, 2015; Goetter et al., 2015). Identifying a treatment modality for PTSD which would be more acceptable to the veteran population, encouraging participation and completion of a program, and improving symptoms of PTSD is the purpose of this study. Given that service dogs have long been used to assist those with physical handicaps such as blindness, deafness and those with ambulatory limitations (Rubenstein, 2012) and as emotional support (Taylor, Edwards, & Pooley, 2013) a curiosity of the impact on veterans drove this study. Should the training and receipt of a service dog demonstrate effective results for diminishing PTSD symptoms it may be an alternative solution for those who may not be comfortable seeking help in a more traditional manner and may mitigate the stigma associated with mental health treatment in the military.

Literature Review

The impact of PTSD on relationships and socialization must be understood through the symptoms which negatively influence a veteran's ability to have healthy relationships. Anger, social anxiety, emotional numbing, and an inability to trust may all provide the perfect storm for relationship destruction. Given the importance of social support to lessen symptom severity of PTSD, treatments should include addressing these symptoms in an effort to improve relationships, provide social support, and increase independence for these veterans.

Anger

Dysfunctional anger may be described as anger experienced too quickly, frequently and intensely. Considered a natural survival instinct, anger is a common symptom for combat veterans with PTSD. The heightened arousal associated with PTSD promotes a quick response, usually with little appraisal of the situation (DiGiuseppe & Tafrate, 2003; U.S. Department of Veteran Affairs, 2015). Anger can mask feelings of shame and guilt, that so many deal with as a result of what they have done and seen when deployed (Morland, Love, Mackintosh, Greene, & Rosen, 2012). Problematic behaviors derived from anger include domestic violence, child abuse, property destruction, and risk-taking behavior, the impact of which can be seen in failed relationships (Coll et al., 2011; DiGiuseppe & Tafrate, 2003).

The fear experienced from angry outbursts causes others to pull away (Dekel & Monson, 2010). Family members struggle with interacting with their loved one, constantly adjusting their behaviors to avoid triggering a negative response (Mansfield, Schaper, Yanagida, & Rosen, 2014). The support of loved ones is essential to treatment adherence and rehabilitation (Meis et al., 2010), and in overcoming the effect of the military's stigma of receiving mental health services (Dekel & Monson, 2010). Sadly, many spouses will choose

to leave; others stay out of fear their loved will commit suicide or out of a sense of duty (Mansfield et al., 2014). Those who stay experience devastating loneliness and feelings of disconnect and neglect (Beks, 2016).

Socialization and Relationships

Kashdan, Julian, Merritt, and Uswatte (2006) stated that the social anxiety experienced by veterans with PTSD has effects on well-being based on the need for fulfilling social interactions for psychological health. Those with anxiety in social situations will avoid social activities, and if this is not possible, will be hypervigilant, ruminate about potential threats, and utilize self-protective behaviors such as restricting emotional expression, limited movement, minimal engagement in conversations, and careful consideration of responses to others to prevent rejection. While veterans may want to have better relationships, their symptoms are such that they feel less anxious and emotional when they isolate (Kashdan et al., 2006).

Given the benefits of peer support, if the family disconnects from the veteran, there is a potential for increased severity of PTSD symptoms (Allen et al., 2010). Anger, in part, impairs the ability to have healthy interpersonal relationships, family members walk on eggshells, and friends distanced themselves (Mansfield et al., 2014). Veterans calm their hyperarousal with emotional numbing. This numbing becomes their way of dealing with their environment as a whole (van der Kolk, 2001). The emotional numbing may leave them feeling disengaged from their spouse and children, causing their relationships to be strained.

Insecure attachment is positively correlated to PTSD severity, both in attachment avoidance and attachment anxiety. Most combat veterans with PTSD are found to have avoidant attachment styles (Renaud, 2008), they do not desire close relationships or to be dependent on anyone (Fraley, 2010). While attachment types tend to remain steady, traumatic events may change one's attachment style (Mikulincer, Ein-Dor, Solomon, & Shaver, 2011), suggesting that attachment styles are fluid and may change based on a current situation or environment. Healthy attachment figures are the foundation for developing healthy attachment styles. To be an attachment figure, Ainsworth (1991) identifies four crucial characteristics: (1) provide physical closeness and availability (secure base); (2) are missed when away; (3) provide consistent comfort and dependability; and (4) relieve distress (safe haven). The human need for nurturance, affiliation and attachment are innate and may be fulfilled by companions of other species. Pets are both a secure base and safe haven, in the same way as in a human-human relationship. This suggests that a service dog or companion animal could serve as an attachment figure for veterans with PTSD, providing the consistent, supportive and nurturing aspects of attachment (Odendaal & Meinjes, 2003) which may assist the veteran in developing a more secure attachment style. Beyond an attachment figure, the companion animal may serve as a transitional object, acting as a gateway to a higher level of social functioning (Kruger & Serpell, 2011), suggesting that a service dog would not necessarily be needed long-term and that the veteran could transition their attachment to a significant human other.

Oxytocin

Research looking at human cognition and behavior from a hormonal perspective has identified the hormone oxytocin as a moderator of social attachments, trust, emotion recognition, and cooperation (Baumgartner et al., 2008; Kosfield et al., 2005; MacDonald, & MacDonald, 2010; Nave et al. 2015; Odendaal, & Meintjes, 2003; Van Ijzendorp & Bakermans-Kranenburg, 2012; Zak, Stanton, & Ahmadi, 2007), social memory (Guastella,

Mitchell, & Mathews, 2008) and promoting positive communication during couples conflict (Ditzen et al., 2009).

Oxytocin has an significant part in regulating complex social behavior (Lee, Macbeth, Pagani, & Young, 2009). To initiate and maintain interpersonal relationships, one must be able to distinguish that the person is trustworthy, that they will be safe in their interactions with this person. De Dreu (2012) found that healthy males who presented with attachment avoidance trusted unknown individuals less, tended to predict betrayal, and were less apt to approach and interact with unknown others with an attitude of cooperation. After receiving a single dose of intranasal oxytocin, these negative expressions of avoidant attachment disappeared. Oxytocin has been shown to promote affiliation and reduce experiences of distress and fear for those with avoidant attachment (Baumgartner et al., 2008; Buchheim et al., 2009). The cognitive-emotional schemas driving the interpretation of social cues and inform initial reactions to novel situations may be altered to allow previous views of others being untrustworthy and unreliable as more congenial or safe (Bowlby, 1973; Mikulincer & Shaver, 2007).

The mediating effect of oxytocin generates a shift from focusing on the negative to more positive social stimuli, encouraging approach behavior. DiSimplicio, Massey-Chase, Cowen, and Harmer (2008) reported a slower reaction time when a single dose of oxytocin was provided intranasally, which enhanced appropriate identification of facial expression, and decreased misinterpretation of ambiguous or positive emotions as negative. This enhancement may increase trust in others and promote attachment and improved social relationships. These findings support the use of oxytocin in the treatment of the social dysfunction found in those with PTSD.

Short-term interaction between a dog and its owner has been linked to a significant increase in oxytocin levels. These levels were found to almost double in both the companion animal and their owner following positive time spent together (Handlin et al., 2011). These findings suggest that a service dog would increase oxytocin levels in the veteran, which may enhance social interactions and assist in developing a secure attachment style.

Training a Service Dog

Yount, Olmert, and Lee (2012) utilized Warriors to train service dogs for military members with PTSD. Yount et al. (2012) reported the anecdotal findings from a program in which Veterans train service dogs to give to others in need. These findings were reported for those providing the training: (1) increase in patience, impulse control, emotional regulation, (2) improved ability to display affect, decrease in emotional numbness, (3) increased sense of belongingness/acceptance, and (4) improved parenting skills and family dynamics. These anecdotal results indicate the need for research to explore the training aspect of receiving a service dog.

PTSD and Social Support

Research has shown that veterans diagnosed with PTSD and their partners report experiencing “more numerous and severe relationship problems and generally poorer family adjustment” than those without a PTSD diagnosis (Monson, Taft, & Fredman, 2009). Laffaye, Cavella, Drescher, and Rosen (2008) found that veterans who received support from both relatives and veteran peers, the veteran peers provided the most emotional support. Relationships with veteran peers appeared to be “supportive and relatively stress-free,” while spousal relationships appeared to provide similar levels of support and stress (Laffaye et al., 2008).

Social support is directly correlated with PTSD symptoms. Those with social support demonstrate less PTSD symptomology (Monson et al., 2009) and less severity of PTSD symptoms (Guay, Billette, & Marchand, 2006). Social supports are negatively impacted by anger, emotional numbing, and avoidant attachment. All of these may be addressed through training their own service dog, which may also be seen as an acceptable form of treatment with minimal stigma normally associated with mental health treatment. Dogs provide unconditional positive regard; veterans report their dog loves them even when they are not pleasant to be around. These dogs are seen as providing nonevaluative social support (Stern et al., 2012) which may not be provided through family or friends. Holcomb and Meacham (1989) found that animal-assisted therapies promoted an increase in social interaction, increased verbalization, and enhanced ability to form human relationships. They further noted an improved capacity for unconditional acceptance, the capability to express feelings to nonthreatening others, and a feeling of normalcy and/or belonging.

Author Information

Diane Scotland-Coogan is an assistant professor in the Master of Social Work program and Saint Leo University. She received her Ph.D. from Capella University in 2017. She is also a Licensed Clinical Social Worker and Clinical Supervisor for the State of Florida. Dr. Scotland-Coogan's research on treatment for PTSD has been driven by her work with veterans and first responders with PTSD and identifying treatments which support lessening symptoms, are strength-based, and promote a decrease in dropout rates. This current research study was conducted on a service dog program which showed anecdotal evidence of PTSD improvement in this researcher's local area. Portions of this article originally appeared in the author's doctoral dissertation, *Receiving and Training A Service Dog: The Impact on Combat Veterans with Posttraumatic Stress Disorder (PTSD)* (2017) while she was a student in the Department of Psychology at Capella University.

Research Design

This research will be a qualitative collective case study using Stake's model. Collective case studies are used to study the differences and commonalities between cases (Stake, 1995). Purposeful sampling was used for this study in an effort to gain awareness of the phenomenon (Stake, 1995), the experience of training and receiving a service dog for combat veterans with PTSD. Multiple case studies are used to identify patterns in case findings, so it is important to choose cases which are considered similar (Yin, 2012). The number of participants should remain small as the purpose is to gain rich detail from each participant rather than generalize to the population (Stake, 2006). This study uses data from interviews with 15 combat veterans diagnosed with PTSD participating in a 14-week program, receiving and training their own service dog. These semi-structured interviews consist of open-ended questions, which were audio recorded and transcribed verbatim. The transcripts of the interviews were reviewed for meaning units to identify themes and patterns.

Approval was granted from Capella University's IRB for the recruiting of participants, research subject matter, and the data collection and analysis process. Each participant was provided with informed consent about the interview process, the purpose of the study and permission to audio record their interview. The identified 15 participants range in age from 30-51, they were of Caucasian, Hispanic, and African American race/ethnicity, served in the Army, Marines, and Navy and engaged in OEF/OIF and Vietnam wars.

A within case analysis of the individual cases will be performed for direct interpretation, to develop an understanding of the individual parts of the case, to assist in the

across case analysis for both uniqueness and identify how they may “relate to each other” (Stake, 1995, p. 72). Meaning units will be identified through the review of data suggesting potential themes. Coding will then be completed to allow for the identification of themes. Theme-based assertions of the individual cases findings will be identified along with their subsequent patterns. A cross case analysis will then be performed, to give an understanding of the phenomenon through aggregation of theme-based assertions and subsequent patterns from the merged case findings.

Themes and patterns will be examined to determine those which were pertinent to the research question and those which may be discarded. Triangulation of the data will be conducted to not only confirm relevant information but to also identify potential ways in which observations may be perceived differently by others. Review of interviews, patterns and themes will be performed by three researchers not involved with either the study or the program from which the participants were chosen. Their feedback will be used to support the reported themes and patterns. Naturalistic generalizations will be identified as to what others may glean from these cases to inform potential future research, consideration for work with this population, or to learn about themselves. All information will be scrutinized as to its relevance for inclusion in the multiple case report (Stake, 2006).

Results

Themes and Patterns

Theme 1: Anger. Participants reported experiencing persistent feelings of anger, which were often incongruent with their current situation. Participants reported being easily frustrated with tasks and people. At times anger resulted in verbal abuse of others and thoughts or acts of physical violence. Their anger, in part, impaired their ability to have interpersonal relationships. Before the receipt of their service, dog participants felt more comfortable keeping others at a distance. While they may not have been comfortable with their angry outbursts, they were more at ease when separated and disconnected from others. Two patterns of anger emerged during the review of the transcribed participant interviews. The first pattern was feelings of anger and frustration. The second pattern was physical or verbal abuse.

Pattern 1.1: Feelings of anger and frustration. This pattern was pervasive in participant responses. The veterans could not predict any triggers to their anger, even in the most benign situations they would find themselves feeling enraged. This anger was always just under the surface, like a ticking time bomb, easily triggered. Participant 5 stated, “Yeah. And you know sometime...I just all the sudden, you know everything is calm in the house and- and I just, I get that anger. I’m just like, why am I angry? For what? There’s no need but, I don’t know. I don’t know.” Participant 7 also stated similar responses, “I used- I actually, you know, I’d get so mad that it just, it would, it would just be red. I would see that and I didn’t see anything else.”

Participants shared their struggle to manage their feelings of anger. They became good at masking the persistent frustration they felt. This cover-up may be why it appeared the anger came out of nowhere, when actually it was there, under the surface all the time. Many participants found their service dog assisted them in managing their anger. Participant 2 shared, “Oh, I was angry but I just, I was so angry at myself and the world that it didn’t matter anymore. Um, I didn’t think I was worth living again. Um, I was useless...Uh, I can’t say that anymore. I really can’t.” With the quelling of their anger, the veterans were able to start working on their relationships with others. They did not feel the need to distance themselves as the constant feeling of frustration was no longer with them.

Pattern 1.2: Physical or verbal abuse. Given their feelings of anger were persistent; overreaction to a perceived slight was not uncommon. When asked to whom their anger was directed, Participant 3 responded, “Um, it depends. If I was at home it was my family. If we were out and about- it was pretty much anywhere. You know, I get- either get so anxious I’d pass out in the store or I’d get so angry I wanted to hit the first person that came next to me.” Participant 4 shared the responsibility of caring for the dog and how this helped with his anger. “I was a very violent person. I get in a lot of trouble because I’d go from idle to combat assault in about seven and a half seconds. And I end up spending, you know, three weeks in ... the VA medical in (location). They, you know, find out why I was so nasty. Like, I didn’t care if you wanted to kick my ass. You get at me I’ll get [sic] lunch, I don’t care. And that’s what happened...then you get some responsibility.” Many participants found their anger decreased after receiving their dog. Participant 3 stated, “I’m a lot calmer now. I don’t have outbursts of anger anywhere near as much as I did. And even if I do, she starts- she’ll pull me out of the situation. Um, with my outbursts of anger, I was never physically violent. I was real quick to yell. Uh, pretty vulgar so I was real quick to cuss people out.”

Participant 11 shared, “I’m always going to have an anger issue. I mean, it’s just something majorly wrong with my head. But with the dog, he’s managed to, you know, control it and he managed to pull me out of that situation...so, I mean that’s- that’s a good thing, I mean cause without the dog, I fear I could easily just snap on someone. But with the dog, he can pull me out of it.” Beyond relationship issues, anger caused some legal issues. The stress on spouses was also impacted by the service dog. As anger decreased in the veteran, the spouse was able to relax a little, as the behaviors influenced by anger were no longer as problematic. Participant 11 shared the benefit of having a service dog has brought to his wife, “Yeah, she’s (participant’s wife) worried because she’s seen what I can do. I mean, I’ve been arrested for so many times for fighting and she’s seen the after action reports from the police and she’s seen the photos, um, the court records showed photos, crime scene photos and she doesn’t like what I can do and...it’s helping me with anger. I still got a lot of anger issues but she knows that with the dog, the dog will take me out of the situation usually. Um, but again just, she’s more happy now that the dog can take me out and she doesn’t have to worry about it and I don’t have to worry about prevention programs and stuff no more. It gets expensive and cause I got a kid now and so, my kid doesn’t have to see the hate and anger.” Participant 13 also noted a decrease in anger, “Yeah, I found that she’s helped me with me anger. She soothes me. It’s like she knows when- when- when I need to be comforted. You know, she knows when my tempers flaring.” The service dogs demonstrate the ability to sense the emotions of the veterans. Throughout the interviews, the service dogs would sleep until the veteran started discussing something which was emotionally taxing. Participant 7 shared, “He knows, he knows when I’m upset, you know. And he knows when he needs to sit with me cause right now he’s sitting underneath there and he’s looking sad like what’s going on here?” When this happened the dogs would first look up to assess what was happening, if they sensed emotional upset they would get up and relentlessly seek the veterans’ full attention. Despite many commands to “sitzen” (sit) or “platz” (place/lay down) they would not be satisfied until the veteran stopped what they were doing and focused on the dog. While this caused initial frustration in the veteran, when they finally gave into the dog’s demands, a smile would come across their face; the affection for their service dog was obvious.

All participants reported a decrease in anger after training and receiving their service dog. With this decrease, the veterans were able to start working on their relationships with others. The constant feeling of frustration was no longer with them, they no longer had unwarranted angry outbursts, and they were able to enjoy time spent with people they loved.

This effect appeared to be felt within weeks after starting the program and continued to improve over time.

Theme 2: Socialization. Prior to receiving their service dog, participants struggled with anxiety in public, keeping them from going anywhere without a trusted escort. Pervasive lack of trust of others kept them from such things as shopping for themselves and attending social events. Participants reported all of these improved with the receipt and training of their service dog. Two patterns emerged during the review of the transcribed participant interviews. The first pattern was problems with the general public, and the second was problems going out in public.

Pattern 2.1: Problems with the general public. The pervasive mistrust of others is demonstrated in the veterans' dislike and avoidance of interacting with the general public. Crowds could send them into a panic attack. With their service dog these veterans became more socially active, reporting that they could go places with their dog, unescorted by another human being, for the first time without incident. At times the service dog serves as a buffer, standing between the veteran and others; they also alert the veteran if someone is coming up behind them. At other times the service dog may attract attention, which can be anxiety-producing. When discussing his struggle with going out in public, participant 9's dog alerted to his anxiety. This veteran stated, "Um, like I was saying, you know, I have some- some [dog whining] [Speaking to his dog: Yeah, I know]. I have some phobias or-or-or-or quirks. And one of them is being around people. I really don't like people. I don't like being around people at all. He- he has helped that some. You know, like in the grocery stores and- and- and other environments and stuff like that. That he's helped me with quite a bit." When asked if his service dog assists him with going out in public participant 1 responded, "Um, yes he does. He makes it so I can go out and so I can associate with people. In fact, it sometimes helps me a little more socially than I want to. You walk around with a service dog and people want to ask questions. It gets overwhelming at times. But it's good. I don't mind it. I'm getting used to it." When discussing his experience of going out in public with his service dog, participant 5 shared how his service dog becomes his focus, and this helps him remain calm, "But sometimes I got to answer questions and stuff and I- I'm just kind of short. I don't want to be rude but I'm just short and some people are just "Oh, he's so nice. Can I pet him?" and I'm just like "No, you can't" but he- he helps me deal with that moreover and I- I've kind of gotten more used to it cause when I go in those areas, I just walk around and, um, I've just kind of blocked it out. My main focus is on him and him on me... he's kind of like, I guess, a security blanket." Having a service dog as a buffer, one that alerts if others are approaching, or as the focus of conversation in public, veterans have found it easier to be more social. When asked how their dog has impacted their life, participant 2 stated, "Oh, lord, um, [laughter] I'm not in my house anymore... I get out and socialize... living a life I didn't think I'd have again. Um it- it's- I can socialize. I can go to church again. You know it- I was so mad at God but, you know, I know I'll get over that and I go to church, I socialize, I do my own shopping. It's like I have my own life back."

Participant 6 refers to his service dog as "a good blocker," as she steps between the veteran and other people when they approach. The veteran further shared his dog watches his back, "Yeah when I'm like, in a check-out line or walking across the parking lot, because I do have issues with my hearing, she does- I- I don't know if it's just instinctual or what but she does let me know if somebody or something is coming up behind." Knowing when someone is approaching from behind assists the veterans with their hypervigilance, it quells the startle reflex. Having their dogs with them, the veterans find it easier to engage in a non-threatening social interaction.

Some veterans preferred to not engage with others when out in public, and their dogs assisted them with this. Avoiding interactions helps them keep their anxiety at bay while still

being able to accomplish whatever their task may be. While this may appear simply to allow them to maintain a social disconnect, it also allowed for more independence as they felt more comfortable going out in public with their dog without the stress of dealing with the general public. The importance of being independent was reiterated by all of the veterans. Participant 11 stated his dog keeps others from getting too close to him, "And with having a large dog, people don't come up to me. They tend to kind of tend to want to back away. People are afraid of big dogs...I get a barrier so I don't have to talk to people... I started noticing when I started taking him out, people were actually starting to walk away from me. I was like a flowing river around a rock. I was actually like, this is kind of nice. People are not messing with me. They look at me funny but they don't mess with me. It is kind of nice."

Having a social anxiety can cause the veteran to not be able to initiate conversations with others. For those who wished to engage, the service dog seems to supply the opportunity to interact with strangers in a nonthreatening way. Participant 14 stated her service dog assists her with not only interacting with others but also the anxiety associated with dealing with strangers, "When I have him with me, people come up and ask me about him because he's full grown and he looks like a puppy. And it's- that a good conversation started and when I start getting nervous, he recognizes it and he calms me down and I'm able to get myself back together and talk again.... At first, it was anxiety-producing but (participant's dog) puts himself in front of me so they don't get too close in my personal space." Participant 14 further shared how her dog has helped her get out of the house more, and to be more social, "From before with (participant's dog) I was very withdrawn and I would leave, I wouldn't leave my home. I was isolating myself where now I go out and I talk with my neighbors. I'm out- I'm a more outgoing person like I was in school, before I was in the military."

Service dogs provide the veteran with support when going out in public. While some veterans find comfort with their dogs keeping others at bay, others enjoy the dogs receiving attention from others, allowing them to interact with others in a nonthreatening manner, and reducing their social anxiety. Beyond the anxiety of interacting with others in public, many veterans find it very difficult to simply leave their home and be in public.

Pattern 2.2: Problems going out in public. Hypervigilance was heightened in public settings, and at times the veterans would experience panic attacks when the anxiety became overwhelming. These heightened states of hypervigilance appear to drive the avoidance of going out in public. Many spoke of their need to be accompanied by a trusted companion if they needed to go anywhere. Most preferred to stay at home, isolating themselves from the rest of the world. There is a sense of safety and security for the veteran when they are accompanied by their service dog. There is a bond, a trust that the dog will let them know if "something" may be happening. When asked about taking his dog when he goes out, participant 4 stated, "And I like to take him when I go to the VA and stuff like that because people get out of his way when he goes walking down the road...He's protective of you, how can you say it? If it's a woman walking down the road he could care less. But if you get, if you get, you know, the adrenaline flowing, you give off a scent, you give off something, he knows something's wrong, he gets more alert and he'll stand between me and you." Participant 6 shared he is able to go to some local stores now with his service dog, and he "actually talks to people in public now," which is something he would have never done before receiving his dog. Participant 10 shared her struggle with going out of her house, "There are still the huge fears of going into certain places but knowing that she's there and able to warn me prior or able to comfort and calm me down before it escalates, is defiantly a relief." When asked if her service dog assists her participant 10 responded, "...psychologically, you know, just able to sense when I'm having something off. Psychologically, making me feel safe in public places." Participant 1 states his dog has

assisted him with being in a crowded area, "... it's gotten better. I mean, I've started, I've started going to... church. So, that's- it's good. It's something I didn't do before...And the church I go to is like, ginormous. There's like, 3 to 400 people in the congregation so it's pretty big...And it's- it's cool. I mean, I- I sit up front so like, there's tons of people behind me. I mean, it's more or less me trying to get over it...But I mean, it's not bad. I mean, nobody tries to mess with him or pet him. Well, the kids but that's normal...But, I mean, besides that, it's pretty good. He's helped me feel comfortable going out more."

Not all of the veterans were able to quell their anxiety enough to be comfortable in public with their service dog, participant 11, who was a rather new graduate of the program, shared he was more active than before receiving his service dog with being out in public; however, he stated, "Um, I'm still having problems going out in public." Participant 14 shared problems she had at work with her symptoms at PTSD, "The very last job that I worked at a (store) in (participant's state), a customer came up behind me, about scared me to death, and I pulled back about two inches from his face, from decking him, and I always had that fear that that being out in public, somebody's going to come up behind me, scare me and I'm going to hit them. And with (participant's dog), he lets me know if somebody's coming up behind me so that fear is gone." Participant 12 stated her service dog makes her feel more comfortable socially, "When I get nervous when I'm in crowds. She comes and comforts me when she knows when I'm upset. Um, she just comforts me. She's like a companion that I've never had before. She soothes me. Um, she lets me go places that I would have never gone before." Participant 15 shared how his service dog assists him with anxiety in public through distracting him and demanding attention, "He's good for- for- for anxiety in public...he'll alert, yes ma'am...because he's got to rub all on me. Yes, ma'am." The ability to go out in public is a sign of regaining independence for the veterans. Participant 14 shared some of the changes this independence has afforded her, "Since I've had (participant's dog) and started training, I've stopped shopping in the middle of the night. I do it during the day. I've started eating at restaurants...yep. I go in public a lot more than I ever have. I haven't- I've- I haven't gone out in public in years." Participant 2 shared how much her service dog has changed her life, "Oh, lord, um, [laughter] I'm not in my house anymore...I get out and socialize. I wouldn't go out at night. I wouldn't go to the store by myself so, I never was really able to shop for myself and this last year, I've shopped a lot for myself instead of other people and it's made a- made a difference in my life." Further stating, "It's, um, I-I-I'm not gonna say that every day's that easy. There are days where I kinda not want to go out...compared to the way I used to be, to having one day or two days here or there where I just don't wanna face the public- so what?" In reference to how their service dog has assisted them with going out in public, participant 6 stated, "I think it's gotten me out of my house a lot more...I mean, at first, if it wasn't a doctor's appointment that I had to go to, I didn't leave my house." When discussing the ways their service dog assists them, participant 2 shared "watching my back when I'm standing in line. I mean, without him, I wouldn't go anywhere. As is, if I don't take him, someone's gotta be with me still."

Part of the program requires the veteran to attend training sessions, which can be problematic for those who cannot leave their house unescorted. Participant 6 shared a few weeks after starting the training he was able to come by himself most days. This was seen as a major accomplishment by not only the veteran but his wife as well. The ability to be independent, not rely on others to take them where they need to go, is very empowering to these veterans. Beyond their progress in the area of socialization with the general public, interpersonal relationships also improved with the receipt of their service dog.

Theme 3: Interpersonal relationships. Participants reported a history of problematic relationships with their spouses and disconnected relationships with children. These veterans shared they did not participate in any family activities or attend any of their

children's school or sports functions. Participants reported their relationships improved with the training and receipt of their service dog. Two patterns emerged during the review of the transcribed participant interviews. The first pattern was problematic relationships with their family; the second pattern was about their struggle with friendships.

Pattern 3.1: Problematic relationships with family. Given the emotional numbing experienced, feelings of anger, isolating, disconnecting from others, and inability to go out in public, family relationships were very strained for these veterans. For some, psychoeducating their spouses through counseling helped the spouse understand, but it did not seem to change the veterans' behaviors. Participant 7 stated, "You know, I was just always angry, you know, and I just, pretty much took it out on her (participant's spouse). Not so much on my, my daughter and everything and my wife didn't really understand what was going on...we went to some (counseling) [sic] sessions and she realized, you know, it wasn't really me that was acting out, it was (PTSD)." After participating in the training program, the veterans found their ability to engage with their families improved. When asked about the change in relationships, participant 2 shared, "I've got people that need me. I've got people that want my- that want me around. I didn't have that before because I was such a negative person. People didn't want me around even if I tried. You know, um, at one point my mom was fearful of me because of my anger. You know and, example is was my brother-in-law was bragging about me after Christmas because I was such a joy to be around. I didn't have the chip on my shoulder or the anger. I sat and I talked and I found God and I- I- I mean, that in itself made me feel so proud of myself. You know, I've come a long way in a year."

The veterans spoke of how hard it was on their children, the fact that they couldn't really engage with them, go places as a family, attend their activities at school or when they played sports. When discussing his family life before receiving his service dog, participant 6 stated, "Miserable. I mean, I was a hermit. I stayed at home. I didn't go nowhere. I didn't do nothing with my kids." When asked how this has changed, this veteran shared "I can go sit in the- the cafeteria under certain conditions and eat lunch with them. With a cafeteria full of kids." When asked if they have seen any changes in their relationship with their family since receiving their service dog participant 13 responded, "Um, I think my relationship with my kids, um, 'cause the kids play with the dog and I play with the dog with the kids, so that gives me something to do with the kids. 'Cause I would never play with the kids before so that gives me something to do with the kids..." Participant 13 shared, "I wasn't able to go to, uh, the park with my kids or anything like that. I actually went to go to the park with my kids, um, one day, uh, a couple of weeks ago with (participant's dog). Um, so that was good... She let me go to the park with my kids so that was a fun experience that I haven't done in a long time." Participant 6 also noted they have developed a "little more patience." This veteran also shared he had gone camping with his family recently. He would typically isolate from others, staying close to the tent, not joining in with what the rest of his family was doing. On this trip, the veteran "was able to go to the river and jump off the docks and stuff" with his children, which he had never done before. While asked if he enjoyed this time the veteran responded, "Yes, and no. It's- it's [long pause] it's very tiring. It's very stressful because even with her, I know I 'm still, I'm still, I can't turn the switch off."

After receiving their service dog the veterans were able to reconnect with their family members. Participant 3 spoke of how his marriage has changed since getting his service dog, "Um, I'm not as angry as I was. Um, I'm still kind of bitter but nowhere near as angry. Um, my wife and I get along great. I don't want to say that we were on the verge of divorce, but it probably wasn't out of the realm of possibilities. Um, things got pretty bad for a while." Participant 9 shared the struggle with family relationships, stating he did not have a supportive family. This veteran felt they did not understand his symptoms and what he was going through, especially his children. Understanding that he needed "space" and that he

would be okay. While sharing his wife has been more supportive over the years, the veteran shared “my wife had a hard time getting it.”

Some veterans reported their service dogs were more accepting of their moods, and their spouses were grateful for the positive impact the dogs had on their household. Participant 7 shared that even though their spouse is not an “animal person” they let the dog sleep in their bed “As long as he stays on your side of the bed,” adding Oh, yeah. She knows- she knows that, uh, he (service dog) keeps me out of (spouse) hair.” Participant 11 stated, “Uh, usually (the) [sic] dog picks up on my PTSD and, you know, I have a wife so, you know, wife usually naps at me and tells me what’s wrong with me and keeps aggravating the heck out of me and the dog can’t talk so, usually the dog comes and snuggles with me and tells me, you know, doesn’t tell me but nuzzles with me and plays with me.” Many veterans shared the positive influence their service dogs had on their household. When asked how receiving their service dog has impacted relationships with his family, participant 5 shared “Compared to what it’s been at some of the bad bad times, I’d say it’s pretty good right now.” Participant 14 stated, “We’re closer. We talk more. Especially if we have, we don’t fight but if we have a petty argument, like we never have screaming and yelling matches. We both just agree they have no purpose. We just have, we argue. We don’t yell at each other. And if we get too frustrated we just walk away and when we calm down we come back...But we don’t argue as much. We sit there and talk things out.”

The service dog becomes a part of the family. When working, the dogs would wear their service dog vest, when at home with the family, the vest came off and they became the family pet. When asked if his service dog interacts with the whole family participant 6 shared that when in public, and her vest was on, her focus was on him. If they were at home, and her vest was off, her focus was on his wife and children, unless he needed her. When asked if their family was involved in training their service dog, participant 6 shared, “They were at home. Here, while at the training center, I did everything. My wife did work with me at home because she’s secondary handler...the kids work with her. The kids can tell her all the platz...Yeah. The kids know all the German commands.” The service dog appeared to become a welcome member of the family. Beyond the normal frustrations a dog can bring, the spouses and children seem to understand the change in the veteran was due to the dogs’ presence, and they were happy with the results. Another area which improved for these veterans was the desire for, and engagement in friendships.

Pattern 3.2: Friendships. Friendships before receiving their service dog were minimal at best for all of the veterans. One of the veterans shared that in the military, “even if you hated the person standing next to you, you would give your life for them.” Reintegrating back into civilian life was hard on many levels, but the inability to connect with others as they had with their battle buddies left them with little social support. Pervasive mistrust of others kept them from making and/or maintaining friendships. The understanding they had of their military friends was based on their training of no man left behind. This is not the case in civilian life, and fear of betrayal was conveyed.

Most of the veterans found it easier to make friends within the program, they spoke of a shared understanding of their experiences. When asked if he had experienced any change in his ability to have relationships with friends, participant 19 stated “Um, yes, ma’am. I’ve made many friends here. So, yes, ma’am.” Participant 1 responded to one of their struggles, “Um, making friends. You know, after you lose a lot of people in combat, and when I got out, you know...I had a problem with alcohol and drugs so I’ve lost friends in recovery too. It just makes it hard to want to get to know people and, um, allow them to get close. I mean, even with the program I consider this place to be my family and I tend to distance myself just for my own safety, even after a year.” Participant 2 discussed improved friendships after receiving her service dogs, “I’m almost normal again. I- I mean, that’s the only way I could

put it. I'm not quite normal. I'm never gonna be normal. But I feel like I have a normal life now to where I didn't have anything. I didn't have friends. You know, everybody says "All your friends are gonna come out of the woodwork if you win the lotto. No their not. I don't have any friends. The only friends I've got is people- this is my second family. It's the people here. This is all I have." This participant further stated, "And I still have that trust issue which, I think I'm always gonna have that trust issue. So, you know, I can live with that. You know, I let people get close but I- I guard myself..." Some veterans found their dog to fill the gap left by limited friendships. When discussing his relationship with his service dog, participant 5 shared, "Uh, he- he definitely, I feel like- like referring back to when I was in- in the war. You know how you always have that constant buddy, that constant partner. I mean, you always take care of everybody as a whole but you have that one partner who's like "yo, you all right? You know, did you make it through this one situation" you know, you're always checking on that partner. That's what I feel that I have with him and I seem to have lost that being out of the military and that comradery, that close, uh uh- him, well me looking out for him and him looking out for me." When asked why he decided to participate in the program, participant 4 stated, "Because I didn't like people and I like my dog. I like dogs and I can talk to the dog. I can tell him everything. And he never- he's just be happy to be there. (inaudible) All right, let's go for a walk. You don't have to worry about him telling you gee (you) [sid] screwed up." Participant 7 states, "Him- he takes care of my void as far as, I don't need social, you know, contact. We stay in the yard and we just stay together. We go out. I take him with me and he can come and everything..."

Most of the veterans found it easier to make friends within the program, they spoke of a shared understanding of their experiences. When asked if he had experienced any change in his ability to have relationships with friends, one participant stated "Um, yes, ma'am. I've made many of friends here. So, yes, ma'am." Some veterans found their dog to fill the gap left by limited friendships. Some referred to feeling "normal" again. Friendships formed within the program were continued after the program ended. Peer support is an important aspect of improving PTSD symptomology (Allen et al., 2010), and this appeared to be obtained through the training process.

Discussion

The results of this study support anecdotal information shared in the literature review (Yount et al., 2012). The implications for clinical practice with veterans with combat-related PTSD must be considered and should be the subject of future quantitative research studies. Improvement in symptoms of PTSD, including improved socialization, relationships, and anger management was reported by all of the 15 participants in this study.

Symptom improvements in anger, socialization, and interpersonal relationships were noticed in as little as a few weeks of starting the training process with their dogs. Given the unsuccessful treatment history of these veterans, this information on improvements is significant for those who work with the veteran population. Another benefit identified during this study was the limited stigma associated with this form of treatment for PTSD symptoms, which may increase participation and completion of the program. Symptom severity decrease had the residual effects of improved relationships, increased independence, improved anger, and enhanced self-efficacy. The participants were able to feel more comfortable in relationships, including peer support, which is a significant factor in the lessening of PTSD symptoms (Allen et al., 2010).

For those who were still struggling with some of their PTSD symptoms, consideration must be given to the possibility of continued improvement over time. Another consideration would be the improvement in symptoms enhancing the ability to participate in more

traditional forms of therapy. This symptom improvement may include a decrease in anger, the ability to leave their home, improved relationships, and increased independence, all which appeared to provide improved hope for the future.

Given the prevalence of PTSD symptoms and diagnoses in veterans, the small percentage of those with this disorder seeking treatment, and the high dropout rates for PTSD treatments, this type of alternative treatment is greatly needed (Coll et al., 2011; Fisher, 2015; Goetter et al., 2015). From 2000 through 2015, 138,197 cases of PTSD have been diagnosed among veterans of the Gulf wars. Given that this data does not include warriors from previous wars, we can conclude that these numbers may be much higher (Fisher, 2015). This suggests an increased need for trauma-informed mental health practitioners utilizing evidence-based treatments for PTSD, which are successful and are not subject to the military's stigma of mental health treatment.

Limitations for this qualitative research may include small sample size, methods of sampling, generalizability, reliability, and validity. As the purpose of the study is to gain rich, detailed information about the veteran's experience and not to generalized findings to this population, it was appropriate to keep the number of participants somewhat small. The smaller number allows for the phenomenon to be exhaustively explored to provide the substantive detail needed for a better understanding of the research topic.

The potential for researcher bias was anticipated as this researcher has worked with children and veterans with PTSD. To mitigate this bias, the researcher to identify potential assumptions and to ensure to not ask leading questions. These steps, along with the triangulation of meaningful units of each case supporting the final report, and having transcripts, themes, and patterns reviewed by three separate researchers, one a retired psychotherapist with the Air Force, and two professors who teach research in a graduate program, potential of researcher bias influencing results was minimized.

Future research using quantitative methodology would be the next step to gain further information about the receipt and training of a service dog. Statistical data using a control group would add relevant detail and support to the use of this phenomenon for combat-veterans with PTSD. Consideration should be given to future research comparing a training program to simply the receipt of a trained service dog. This subsequent study would add to the field of psychology through an understanding of the phenomenon: is it the service dog, or is it the dog and the training program combined? The data analysis in this study demonstrates a benefit to not only receiving a service dog, but also in training the dog.

References

- Ainsworth, M. S. (1991). Attachments and other affectional bonds across the life cycle. In C. M. Parkes, J. Stevenson-Hinde, & P. Marris (Eds.), *Attachment across the lifecycle* (pp. 33–51). New York, NY: Routledge.
- Allen, E. S., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2010). Hitting home: Relationships between recent deployment, posttraumatic stress symptoms, and marital functioning for Army couples. *Journal of Family Psychology, 24*(3), 280-288.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Baumgartner, T., Heinrichs, M., Vonlanthen, A., Fischbacher, U., & Fehr, E. (2008). Oxytocin shapes the neural circuitry of trust and trust adaptation in humans. *Neuron, 58*(4), 639-650.
- Beks, T. (2016). Walking on eggshells: The lived experience of partners of veterans with PTSD. *The Qualitative Report, 21*(4), 645-660. Retrieved from <https://nsuworks.nova.edu/tqr/vol21/iss4/4>

- Bowlby, J. (1973). *Attachment and loss, Vol. II: Separation*. New York, NY: Basic Books.
- Buchheim, A., Heinrichs, M., George, C., Pokorny, D., Koops, E., Henningsen, P., . . . Gundel, H. (2009). Oxytocin enhances the experience of attachment security. *Psychoneuroendocrinology*, *34*(9), 1417–1422.
- Coll, J. E., Weiss, E. I., & Yarvis, J. S. (2011). No one leaves unchanged: Insights for civilian mental health care professionals into the military experience and culture. *Social Work in Health Care*, *50*(7), 487-500.
- De Dreu, C. K. (2012). Oxytocin modulates the link between adult attachment and cooperation through reduced betrayal aversion. *Psychoneuroendocrinology*, *37*(7), 871-880.
- Dekel, R., & Monson, C. M. (2010). Military-related post-traumatic stress disorder and family relations: Current knowledge and future directions. *Aggression and Violent Behaviour*, *15*(4), 303-309. doi:10.1016/j.avb.2010.03.001
- DiGiuseppe, R., & Tafrate, R. C. (2003). Anger treatment for adults: A meta-analytic review. *Clinical Psychology: Science and Practice*, *10*(1), 70-84.
- DiSimplicio, M., Massey-Chase, R., Cowen, P. J., & Harmer, C. J. (2008). Oxytocin enhances processing of positive versus negative emotional information in healthy male volunteers. *Journal of Psychopharmacology*, *23*(3), 241-248.
- Ditzen, B., Schaer, M., Gabriel, B., Bodenmann, G., Ehlert, U., & Heinrichs, M. (2009). Intranasal oxytocin increases positive communication and reduces cortisol levels during couple conflict. *Biological Psychiatry*, *65*(9), 728-731.
- Fisher, H. (2015). *A guide to U.S. military casualty statistics: Operation Freedom's Sentinel, Operation Inherent Resolve, Operation New Dawn, Operation Iraqi Freedom, and Operation Enduring Freedom*. Retrieved from <http://www.fas.org/sgp/crs/natsec/RS22452.pdf>
- Fraley, R. C. (2010). *A brief overview of adult attachment theory and research*. Retrieved from <http://labs.psychology.illinois.edu/~rcfraley/attachment.htm>
- Goetter, E. M., Bui, E., Ojserkis, R. A., Zakarian, R. J., Brendel, R. W., & Simon, N. M. (2015). A systematic review of dropout from psychotherapy for posttraumatic stress disorder among Iraq and Afghanistan combat veterans. *Journal of Traumatic Stress*, *28*(5), 1-9. doi: 10.1002/jts.22038
- Guastella, A. J., Mitchell, P. B., & Mathews, F. (2008). Oxytocin enhances the encoding of positive social memories in humans. *Biological Psychiatry*, *64*(3), 256-258.
- Guay, S., Billette, V., & Marchand, A. (2006). Exploring the links between posttraumatic stress disorder and social support: Processes and potential research avenues. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, *19*(3), 327-338.
- Handlin, L., Hydbring-Sandberg, E., Nilsson, A., Ejdebäck, M., Jansson, A., & Uvnäs-Moberg, K. (2011). Short-term interaction between dogs and their owners: Effects on oxytocin, cortisol, insulin and heart rate—An exploratory study. *Anthrozoös*, *24*(3), 301-315.
- Hoge, C. W., Auchterlonie, J. L., & Milliken, C. S. (2006). Mental health problems, use of mental health services, and attrition from military service after returning from deployment to Iraq or Afghanistan. *Journal of the American Medical Association*, *295*(9), 1023–1032. doi:10.1007/s11606-009-1117-3
- Holcomb, R., & Meacham, M. (1989). Effectiveness of an animal assisted therapy program in an inpatient psychiatric unit. *Anthrozoös*, *11*, 259-264.
- Kashdan, T. B., Julian, T., Merritt, K., & Uswatte, G. (2006). Social anxiety and posttraumatic stress in combat veterans: Relations to well-being and character strengths. *Behaviour Research and Therapy*, *44*(4), 561-583.

- Knisely, J. S., Barker, S. B., & Barker, R. T. (2012). *Research on benefits of canine-assisted therapy for adults in nonmilitary settings*. Retrieved from [https://habricentral.org/resources/684/download/knisely_barker_barker-canine assisted therapy in nonmil settings.pdf](https://habricentral.org/resources/684/download/knisely_barker_barker-canine_assisted_therapy_in_nonmil_settings.pdf)
- Kosfeld, M., Heinrichs, M., Zak, P. J., Fischbacher, U., & Fehr, E. (2005). Oxytocin increases trust in humans. *Nature*, *435*(7042), 673-676. doi:10.1038/nature03701
- Kruger, K. A., & Serpell, J. A. (2011). Animal-assisted interventions in mental health: Definitions and theoretical foundations. In A. H. Fine & E. D. Fine (Eds.), *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice* (2nd ed., pp. 21-38). Cambridge, MA: Academic Press.
- Laffaye, C., Cavella, S., Drescher, K., & Rosen, C. (2008). Relationships among PTSD symptoms, social support, and support source in veterans with chronic PTSD. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, *21*(4), 394-401.
- Lee, H. J., Macbeth, A. H., Pagani, J. H., & Young, W. S. (2009). Oxytocin: The great facilitator. *Progress in Neurobiology*, *88*(2), 127-151. doi:10.1016/j.pneurobio.2009.04.001.
- MacDonald, K., & MacDonald, T. M. (2010). The peptide that binds: A systematic review of oxytocin and its prosocial effects in humans. *Harvard Review of Psychiatry*, *18*(1), 1-21.
- Mansfield, A. J., Schaper, K. M., Yanagida, A. M., & Rosen, C. S. (2014). One day at a time: The experiences of partners of veterans with posttraumatic stress disorder. *Professional Psychology: Research and Practice*, *45*(6), 488-495. doi:10.1037/a0038422
- Meis, L. A., Barry, R. A., Kehle, S. M., Erbes, C. R., & Polusny, M. A. (2010). Relationship adjustment, PTSD symptoms, and treatment utilization among coupled National Guard soldiers deployed to Iraq. *Journal of Family Psychology*, *24*(5), 560-567. doi:10.1037/a0020925
- Mikulincer, M., Ein-Dor, T., Solomon, Z., & Shaver, P. R. (2011). Trajectories of attachment insecurities over a 17-year period: A latent growth curve analysis of the impact of war captivity and posttraumatic stress disorder. *Journal of Social & Clinical Psychology*, *30*(9), 960-984. doi:10.1521/jscp.2011.30.9.960
- Mikulincer, M., & Shaver, P. R. (2007). Boosting attachment security to promote mental health, prosocial values, and inter-group tolerance. *Psychological Inquiry*, *18*(3), 139-156.
- Monson, C. M., Taft, C. T., & Fredman, S. J. (2009). Military-related PTSD and intimate relationships: From description to theory-driven research and intervention development. *Clinical Psychology Review*, *29*(8), 707-714. doi:10.1016/j.cpr.2009.09.002
- Morland, L. A., Love, A. R., Mackintosh, M. A., Greene, C. J., & Rosen, C. S. (2012). Treating anger and aggression in military populations: Research updates and clinical implications. *Clinical Psychology: Science and Practice*, *19*(3), 305-322.
- National Council of Child Abuse and Family Violence. (2015). *Combat vets most prone to domestic abuse*. Retrieved from <https://consumer.healthday.com/public-health-information-30/domestic-violence-news-207/combat-vets-most-prone-to-domestic-abuse-505408.html>
- Nave, G., Camerer, C., & McCullough, M. (2015). Does oxytocin increase trust in humans? A critical review of research. *Perspectives on Psychological Science*, *10*(6), 772-789.

- Odendaal, J. S. J., & Meinjes, R. A. (2003). Neurophysiological correlates of affiliative behavior between humans and dogs. *The Veterinary Journal*, *165*, 296-301. doi:10.1016/S1090-0233(02)00237-X
- Renaud, E. F. (2008). The attachment characteristics of combat veterans with PTSD. *Traumatology*, *14*(3), 1-12. doi: 10.1177/1534765608319085
- Rothbaum, B. O. (2013). Service dogs in military medicine. *Psychiatric Annals*, *43*(6), 291-291. doi: 10.3928/00485713-20130605-10
- Rubenstein, D. A. (2012). Perspectives. *U.S. Army Medical Department Journal*, 1-4. Retrieved from <https://www.cs.amedd.army.mil/FileDownloadpublic.aspx?docid=73e8d2aa-1a2a-467d-b6e3-e73652da8622>
- Stake, R. E. (1995). *The art of case study research*. Thousand Oakes, CA: Sage.
- Stake, R. E. (2006). *Multiple case study analysis*. New York, NY: Guilford Press.
- Stern, S. L., Donahue, D. A., Allison, S., Hatch, J. P., Lancaster, C. L., Benson, T. A., & . . . Peterson, A. L. (2013). Potential benefits of canine companionship for military veterans with posttraumatic stress disorder (PTSD). *Society & Animals*, *21*(6), 568-581. doi:10.1163/15685306-12341286
- Taylor, M. F., Edwards, M. E., & Pooley, J. A. (2013). "Nudging them back to reality": Toward a growing public acceptance of the role dogs fulfill in ameliorating contemporary veterans' PTSD symptoms. *Anthrozoös*, *26*(4), 593-611.
- U.S. Department of Veteran Affairs. (2015). *Anger and trauma*. Retrieved from <https://www.ptsd.va.gov/understand/related/anger.asp>
- van der Kolk, B. A. (2001). The psychobiology and psychopharmacology of PTSD. *Human Psychopharmacology: Clinical and Experimental*, *16*(11), S49-S64. doi:10.1002/hup.270
- Van Ijzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2012). A sniff of trust: Meta-analysis of the effects of intranasal oxytocin administration on face recognition, trust to in-group, and trust to out-group. *Psychoneuroendocrinology*, *37*(3), 438-443. doi:10.1016/j.psyneuen.2011.07.008
- Watson Institute for International and Public Affairs. (2015). *U.S. veterans and military families*. Retrieved from <http://watson.brown.edu/costsofwar/costs/human/veterans>
- Whealin, J. M. (2015). *Warzone-related stress reactions: What veterans need to know*. Retrieved from <http://www.militaryspot.com/publications/warzonerelated.pdf>
- Yin, R. K. (2012). Case study methods. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, K. J. Sher, . . . K. J. Sher (Eds.), *APA handbook of research methods in psychology, Vol 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 141-155). Washington, DC, US: American Psychological Association. doi:10.1037/13620-009
- Yount, R. A., Olmert, M. D., & Lee, M. R. (2012). *Service dog training program for treatment of posttraumatic stress in service members*. Retrieved from https://habricentral.org/resources/698/download/yount_olmert_lee-service_dog_training_PTSD.pdf
- Zak, P. J., Stanton, A. A., & Ahmadi, S. (2007). Oxytocin increases generosity in humans. *PloS one*, *2*(11), e1128.

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