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Therapeutic Benefits of Certified Canines for Support of
Veterans with War-Related Trauma Disorders

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Abstract

This paper explored the therapeutic benefits of certified service canines for veterans with war-related trauma disorders such as post-traumatic stress disorder (PTSD), anxiety, and depression. A review of the literature was conducted, followed by a pilot study using interviews and thematic analysis of the transcriptions from the interviews to determine the therapeutic benefits that canines may provide to combat veterans with a war-related trauma disorder.

Keywords: veterans, certified canines, trauma, PTSD, war, service dog, service canine

Therapeutic Benefits of Certified Canines for Veterans
with War-Related Trauma Disorders

The American Psychological Association (APA) indicates that suicide rates are on the rise for veterans returning home from combat. Hundreds of thousands of veterans are discharged from active duty with significant mental health issues including PTSD, anxiety, and depression. Further, the majority of these individuals do not seek help from health professionals (2013). Military affiliation is common today's world, and it is imperative that health professionals are aware of the barriers that military men and women, along with their family and friends, face in society in order to receive effective support.

Increasingly, health professionals utilize certified canines to offer support to veterans and their families. Although this is increasingly common, there is a lack of evidence-based research to support the benefits of this service for veterans with mental health conditions.

Literature Review

Military Involvement & Repercussions

According to the U.S. Census Bureau (2016), there were 21.8 million veterans of the U.S. Armed Forces as of 2014. The U.S. Census Bureau (2016) explains who is considered a veteran:

Veterans are men and women who have served (even for a short time), but are not currently serving, on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or the Coast Guard, or who served in the U.S. Merchant Marine during World War II. People who served in the National Guard or Reserves are classified as veterans only if they were ever called or ordered to active duty, not counting the 4-6 months for initial training or yearly summer camps. (para. 1)

There are five branches of military, and each of them stand for their own beliefs and have their

own set of responsibilities when it comes to national defense. These branches include: Army, Navy, Marine Corps, Air Force, and Coast Guard.

The Army is the largest and oldest branch of the military, and is responsible for land-based military operations. When one is a member of the Army, he or she can be active duty or reserve status. The Army revolves its mission around seven core values: loyalty, duty, respect, selfless service, honor, integrity, and personal courage. The Navy is the sea branch of the armed forces. This branch's responsibility includes preparing naval forces for war, maintaining naval aviation, and developing equipment and strategies to service naval combat. Honor, courage, and commitment are the Navy's core values. The Marine Corps works in direct relationship with the Navy, operating administratively underneath of it and supporting many of the same duties that the Navy performs. For these reasons, the two branches recognize the same core beliefs. It is important to note, however, that a member of the Marine Corps is titled as a "marine" and not a "soldier," as individuals belonging to other branches are typically denoted. The Air Force specializes in global interests related to flight, space, and cyberspace. Its core values are integrity, service before self, and excellence is all that is done. The mission of the Coast Guard is, "To protect the public, the environment, and the United States economic and security interests in any maritime region in which those interests may be at risk, including international waters and America's coasts, ports, and inland waterways" (slide 19). The Coast Guard values honor, respect, and devotion to duty. Although the branches are essentially responsible for very different operations, they all revolve their service around virtue and patriotism for the United States of America (Hsu, 2010).

Military involvement is highly honored in America, but service does not come without a price. Upon returning home, many veterans experience unemployment, homelessness, receive

poor health care, experience various trauma-related disorders, and perform lower than their peers in education (Risen, 2014). Being that the minimum age to enlist in the military is 18, many service men and women complete their high school education and leave immediately after receiving their diploma. Ninety two percent (92%) of veterans age 25 and older have only a high school education, which makes returning home into the fast-paced economy challenging. In 2013, there were 722,000 unemployed veterans in the United States. Due to the staggering number of unemployed veterans, there are approximately 50,000 homeless veterans, comprising about 12% of the nation's homeless population. However, veteran unemployment and homelessness rates have been on a steady decline since the country's bounce back from the recession in 2008. The U.S. Department of Veterans Affairs (USDVA) offers medical and allied health assistance to veterans, through 1,700 medical sites across the nation, but it has fallen short in meeting the psychological needs of the individuals that it serves. In 2009, the Obama Administration raised the VA budget by almost 60% to help aid professionals in better meeting the needs of veterans across the country. It is extremely common for veterans to experience war-related disorders such as anxiety, social isolation, depression, and PTSD. Roughly 20% of troops who served in Iraq and Afghanistan since 2001 have experienced symptoms of PTSD (Risen, 2014). This statistic is expected to continually rise as the stigma of mental health is decreasing and more veterans are coming forward to health care providers about their debilitating symptoms. Despite these various repercussions of military service, 89% of veterans who served in the Iraq and Afghanistan war since 2001 have reported that they made the right decision to serve their country (Risen, 2014).

Veterans with Trauma-Related Disorders

The degree of exposure to trauma while serving in the military makes veterans

susceptible to many different mental health disorders. Common diagnoses that veterans receive post-service include: attention deficit hyperactive disorder, bipolar disorder, major depressive disorder, and PTSD (Veterans' Families United Foundation, 2016). Nearly 1 in 4 active military personnel exhibit symptoms of a mental health condition. The three most common combat-related diagnoses are PTSD, depression, and traumatic brain injury (TBI) (National Alliance on Mental Illness [NAMI], 2016).

Symptoms of PTSD include intrusive memories, avoidance, dissociation, and hypervigilance. Signs of the disorder are usually displayed three months after the traumatic event, but they can occur at any time in a person's lifetime. In order to be given a diagnosis of PTSD, the individual must experience symptoms for at least one month. Depression, substance abuse, and anxiety are often associated with PTSD. Because PTSD is a very complex and individualistic illness, it proves challenging to effectively treat (NAMI, 2016).

A diagnosis of depression can only be made when an individual is experiencing an episode of the following symptoms for at least two weeks. Anhedonia, defined as a lack of interest in doing anything, sleep disturbances, agitation, fatigue, low self-esteem, trouble concentrating or making decisions, and suicidal thoughts or intentions are all red flags for depression. Depression does not discriminate—it can affect all people, regardless of race, ethnicity, gender, or age. Individuals exposed to chronic trauma, such as veterans, have an increased chance of being depressed. Uncontrollable biologic factors (i.e. brain structure, genetics) have also been shown to be correlated with increased risk of depression (NAMI, 2016).

Veterans are at increased risk for a traumatic brain injury (TBI) due to the nature of their service. For veterans, acquiring a TBI usually occurs from one of three ways in a combat experience: being struck in the head by a flying object, hitting one's head on another object, or

from a nearby explosion affecting the person's head. Traumatic brain injuries are categorized as mild TBI or severe TBI depending on the severity of the impact and the subsequent symptoms. Symptoms associated with mild TBIs are disorientation, confusion, memory loss, and unconsciousness. Severe TBIs involve the previous symptoms with an addition of chronic migraines, repeated vomiting, convulsions or seizures, inability to awaken from sleep, slurred speech, paralysis of extremities of the body, and agitation. Injuries that result in 30 minutes of unconsciousness are typically diagnosed as severe and are likely to represent the most serious signs and symptoms. A diagnosis of TBI can only be made by medical professionals after they have completed various evaluations. Traumatic brain injuries have the ability to drastically change the individual's personality and cognition, which can further impede the person's mental health status (Military Advantage, 2016).

Treatments for Trauma Disorders

There are multiple treatment venues that veterans can utilize to help alleviate their symptoms. Veterans are guaranteed health care coverage through the Veterans Health Administration (VHA), which is the largest integrated health care system in America. According to the USDVA (2016):

VA Health Benefits includes all the necessary inpatient hospital care and outpatient services to promote, preserve, or restore your health. VHA medical facilities provide a wide range of services including traditional hospital-based services such as surgery, critical care, mental health, orthopedics, pharmacy, radiology and physical therapy... In addition, most of our medical facilities offer additional medical and surgical specialty services including audiology & speech pathology, dermatology, dental, geriatrics, neurology, oncology, podiatry, prosthetics, urology, and vision care. Some medical

centers also offer advanced services such as organ transplants and plastic surgery. (para. 1 & 2)

However, certain benefits, such as dental care, may vary from person to person depending on the individual's military eligibility status (USDVA, 2016).

The most common mental health conditions that veterans experience are PTSD and depression, which are treated with similar approaches because they have overlapping symptoms. Medication and psychotherapy are among the most common treatments for the symptoms of these disorders. Medications, such as antidepressants and alpha- and beta-blockers, are generally prescribed in addition, ideally, to another form of treatment. Antidepressants, such as certain selective serotonin reuptake inhibitors (SSRI), have been approved by the FDA to reduce the effects of depression on an individual's everyday life. Alpha- and beta-blockers, which are most commonly used to treat high blood pressure, have been proven effective in interrupting the way that veterans store their memories. These medications can alleviate the fear that some veterans experience on a daily basis, because they prevent long-term storage of traumatic memories. Psychotherapy approaches such as cognitive behavioral therapy (CBT) and exposure therapy are also common approaches. Cognitive behavioral therapy is constructed around the theory that positive thoughts will lead to positive behaviors. Therefore, CBT focuses on replacing negative beliefs about oneself with beliefs that will promote self-esteem and worthiness (NAMI, 2016). "Exposure therapy, previously known as imaginal flooding therapy, involves carefully exposing the patient to prolonged and repeated imagined images of the trauma until the images no longer cause severe anxiety," which is an aggressive form of desensitization for veterans (para. 3). Some individuals respond better than others to this treatment, depending on personality and degree of exposure to trauma. In addition to these approaches, group therapy and stress/anxiety

reduction seminars are recommended (APA, 2016).

It is important to note, however, that everyone processes symptoms differently and intervention should be considered on a very client-centered approach to best meet the individual's needs. In general, there is no one "cure all" treatment for mental health conditions. It is usually recommended that pharmaceuticals should not be used to treat symptoms as a stand-alone approach. Rather, medications should be prescribed to assist with recovery while the individual is receiving other forms of treatment (Veterans' Families United Foundation, 2016). An increasingly popular approach to treating various physical and mental health disorders is the use of certified canines, which will be discussed further in the following paragraphs.

Human-Animal Connection

It is common knowledge that animals and humans have long shared a strong connection dating back to Paleolithic ages where animals were depicted in cave paintings and sculptures. Canines, specifically, have been referred to as a "man's best friend," appreciated for their unwavering loyalty and companionship. Considerable research has confirmed that animals have the ability to provide physical, emotional, and psychological effects on humans. The American Veterinary Medical Association (AVMA) states, "The human-animal bond is a mutually beneficial and dynamic relationship between people and animals that is influenced by behaviors that are essential to the health and well-being of both" (2016, para. 1). With regard to physical health, pet therapy can lower blood pressure, improve cardiovascular health, release endorphins, and reduce pain. Interaction with animals can also have a positive effect on an individual's mental health status. It can lift depression, decrease feelings of isolation, encourage communication, provide comfort, increase sense of community, reduce boredom, lower anxiety, motivate to heal, and alleviate feelings of loneliness (Paws for People, 2016). For these reasons,

animal assistance, typically canine assistance, is increasing in popularity among vulnerable populations of people.

Defining a “Certified Canine”

The Americans with Disabilities Act (ADA) defines a service animal as, “...dogs that are individually trained to do work or perform tasks for people with disabilities” (2011, para. 3). Under this act, service animals must be allowed entrance in any facility where general public is typically allowed to go. These animals must be harnessed, leashed, or tethered to denote their significance—the only exception to this rule is if those devices interfere with the animal’s ability to perform his or her duty. The term “service animal” can be interchanged with “certified animal/canine and “assistance animal” (ADA, 2011).

There are hundreds of organizations that are recognized nationally that offer training for service animals that adhere to the ADA policies. Most organizations become part of a coalition, such as Assistance Dogs International (ADI), which helps dogs become accredited and meet standards. Training a service dog typically takes 180 to 360 hours over a 6-month period, depending on the dog’s learning style and capability (ADI, 2016). There are numerous standards that the ADI deems appropriate for a service animal to practice. Examples of these requirements, according to Patriot Paws (2016), include:

- 1.) The service dog must respond to commands (basic obedience and skilled tasks) from the client 90% of the time on the first ask in all public and home environments.
- 2.) The service dog should demonstrate basic obedience skills by responding to voice and/or hand signals for sitting, staying in place, lying down, walking in a controlled position near the client and coming to the client when called. (para. 2)

Certified canines are used with a variety of populations with a wide range of disabilities, but

careful training is essential in order to provide an effective and safe mode of communication between the dog and his or her human partner.

Tasks Performed by Certified Canines

Certified canines are used for multiple activities depending on the individual's needs. Some populations that service dogs are trained for include: veterans, autism spectrum disorder (ASD), legal blindness, depression, anxiety, hearing loss, seizure response, and physical disability. These canines can be trained to offer assistance to people with these disabilities, to allow them to become more independent and functional in their everyday life. According to the USDVA, a service canine is trained to, "Do things that are different from natural dog behavior, do things that the handler (dog owner) cannot do because of a disability, and learn to work with the new handler in ways that help manage the owner's disability" (2016, para. 7).

Due to the fact that veterans may have both a physical and emotional disability, service canines are trained to perform a wide range of activities for their owners. Examples of these services include bringing medication and a beverage to the owner to swallow the medication, fetching a telephone during an emergency, answering the doorbell, calling 911 or a suicide hotline on a K-9 rescue phone, providing balance assistance on stairs, responding to a smoke alarm or other security detectors, carrying necessary emergency and medical equipment, item retrieval, reminding the owner to take medication, providing tactile stimulation to alleviate sudden emotional overload, combating an owner's sedative medication side effects, waking the owner for work or class at certain time, finding exits quickly in public buildings, turning on/off lights in home, and checking for intruders in the home are all tasks that certified canines can be trained to do for veterans. The list is long, depending on the handler's needs, but those are the most commonly trained activities. In addition to these specific tasks, service canines are

expected to master obedience from its owner, display no aggressive behavior (unless safety of owner is threatened), and not intrude on another individual's personal space within a public sanction (Froling, 2009).

Benefits of Certified Canines for Veterans

Human connection with any animal has suggested through extensive research that this leads to release of endorphins, which are natural "happy neurotransmitters", into the body. Canines can provide benefits that extend beyond assistance in activities of daily living. Studies have shown that service canines provide biomedical, psychological, and social benefits to their handlers (Barker & Wolen, 2008; Handin et. al, 2011). Direct and indirect effects of human-animal companionship are exhibited throughout the relationship. Direct effects are considered those that address immediate health correlations, while indirect effects are results of experiences that connecting with an animal leads to (Gillett & Weldrick, 2014).

Physiological, psychological, and social changes have been noted in veterans who receive assistance from a certified canine. Physiological changes include lowered blood pressure, release of oxytocin (neurotransmitter that fights many symptoms of PTSD), and improved immunity to fight off illness. Psychological effects, which are likely the most pertinent for veterans with trauma-related disorders, are the most widely researched for this area of study (Gillett & Weldrick, 2014). Urichuk and Anderson (2003) stated,

The numerous reports about the benefits animals provide to people have indicated that animals may not only contribute to numerous psychological benefits, but may also provide outlets for spirituality, education, recreation, and socialization, which will further positively influence the psychological well-being of the handler. (p. 25)

Service canines have been shown to increase motivation to participate in social engagements,

mitigate loneliness and isolation, and improve relationships within the family sphere (Gillett & Weldrick, 2014). These physiological, psychological, and social effects are correlated with an overall improvement in quality of life for the owner of the certified canine.

Methods

Research Design

This qualitative study explored the benefits of certified canines for veterans with war-related trauma disorders. Although three participants is a small sample size, this pilot study was conducted to be published as an undergraduate honors college thesis for Western Michigan University. The Western Michigan University Human Subject Institutional Review Board approved this study, and informed consent was obtained before interviews were conducted.

Participants

Subjects were recruited by way of a convenience sample via email through several different organizations or by flyering (see attached recruitment email script and flyer in Appendix A). The inclusion criteria for participating in the study were: 1.) Currently utilizing a service canine, 2.) Military veteran, and 3.) English speaking. The subject pool of participants was 3 individuals, one female and two males. The average age of the participants was 38 years old. Wars or locations served included: Desert Storm, Iraqi Freedom, and Afghanistan. These participants were diagnosed with war-related conditions such as PTSD, depression, and anxiety. One participant has been receiving assistance from her certified canine for 9 years, another participant has been receiving assistance for one year, and the third participant actually adopted his combat canine upon retirement from the military and has had him for 4 years. Participants met with investigators at a convenient and confidential location to complete a 15 to 30 minute interview on a scheduled day and time or scheduled a phone interview due to time constraints.

More information about the study, including the informed consent documentation (see Appendix C), was provided upon arrival at interview time or at beginning of phone conversation. At that point, participants had the opportunity to continue with the study or decline participation. Once the participants read the informed consent document, had the opportunity to ask further questions, and signed the informed consent document, the interview process began.

Procedures

This study involved the collection of qualitative data, except for several background variables, including age, marital status, and occupational history. Participants were also asked how long they have had a certified canine and how they went about obtaining one (see Appendix B for interview questions). Interviews were audio recorded using a digital recorder. After the dialogue was recorded, the media files were downloaded to an encrypted device. Dialogues were transcribed from an encrypted device to a written form which was also encrypted. The audiotaped interviews were erased once the transcriptions were completed. The data was retained on an external disk drive and securely stored in a locked cabinet in the office of the principal investigator (PI). These transcripts were retained until the data was analyzed and then were deleted.

Analysis

From these transcribed interviews, a thematic analysis was conducted specifically related to the therapeutic benefits and the effects on well-being that a certified canine provides to the participants. Relevant statements were identified and formed into themes. Five themes emerged from the analysis and direct dialogue from the interviews was included to give verbatim experiences and expressions of what it means to have assistance from a canine for a veteran.

Results of Thematic Analysis

Reduce Isolation, Increase Social Participation

A common theme that emerged during the interviews with the participants is that their canines directly helped reduce isolation and increase social participation. Before receiving assistance from their canines, the participants rarely left their homes to attend social gatherings. According to Stein and Tuval-Mashiach (2014), veterans experience what is called “experiential loneliness,” which is remarkably different than loneliness demonstrated by individuals that have not been through ongoing trauma (para. 42). Experiential loneliness is an emotion felt by individuals who have experienced chronic, experiential trauma; a yearning to want to be understood, even when realizing that a person’s closest loved ones cannot truly fathom the experiences that he or she endured. Therefore, the burning desire to want to be understood rather than pitied or empathized with results in these individuals socially withdrawing themselves. The participants’ canines have given them the confidence and needed comfortability to get them out of the house. One participant stated, “...walking is part of our therapy, so we walk every day together” (personal communication, March 24, 2017). Before receiving support from a canine, this participant did not even walk around her neighborhood. Another participant noted with excitement, “He loves to be around anyone, anywhere... We went down the river for 8.5 hours together, he goes to hockey games with me, we went to Boyne. We do a lot together... [A] whole year I didn’t leave the house probably a dozen times. Since I’ve had [the dog], I have been on more trips than I ever have” (personal communication, March 27, 2017). Further, this participant said, “...[he helps with] stress and anxiety management. He allows me to function mostly incident free in public” (personal communication, April 4, 2017). This participant’s canine enables him to feel ease in public sanctions. These dialogues reinforce what the literature

states is true about the benefits of receiving a certified canine—their services improve an individual's overall quality of life.

Man's Best Friend

As discussed in an earlier section, the human-animal connection has been evident throughout history. The participants in this study felt an immediate and compelling connection with their canines upon receiving services from them. It is confirmed in this participant's quote: "...that's one of the reasons why I work 8 hours instead of 10, because I can't handle being away from [the dog] that long... [The dog] has been unbelievable in my life. The way that she has attuned to me has been just... [The dog] is saying, 'Pet me, I am here with you, I will cuddle you—anything you need'" (personal communication, March 24, 2017). Another participant stated, "We are best friends, we do everything together" (personal communication, March 27, 2017). When asked if being away from dog causes additional anxiety, the participant responded, "Yes, absolutely" (personal communication, March 27, 2017). This participant responded with, "No... The best therapy I've ever received is my dog," when asked if he seeks other mental health services (personal communication, April 4, 2017). Being able to rely on their canines as confidants has played a significant role in the participants' integration back into society from war.

My Four-Legged Doc

For these veterans with mental health disorders, emotional support is the primary role of their certified canines. These canines are trained to notice stress responses from their humans and offer assistance as the dog sees fit. When asked what things her dog performs for her, the participant responded, "...she is there to comfort. She knows when I am stressed, she knows when I have anxiety, so she is there to calm my mood... she knows that I need to pay attention to

her or pet her to de-stress” (personal communication, March 24, 2017). Before receiving her dog, this participant attended counseling multiple times a week to manage the symptoms of her mental health disorder. Now, “It is usually about every three years that I check in. I could go all the time if I wanted to, but with [the dog] I don’t have to go as often,” she stated (personal communication, March 24, 2017). Another participant’s canine offers emotional and physical assistance. “I’m training him to wake me up in the middle of the night if I am having a nightmare,” which is a debilitating symptom from the participant’s PTSD (personal communication, March 27, 2017). The same participant spoke of the emotional assistance that his canine offers him. He said, “When I get anxious or nervous in public, he is a nice relief to look down and be able to see and deflect that negative energy” (personal communication, March 27, 2017). When the participant’s dog notices a stress response from his handler, “He puts his face on my leg and he starts whining, and that usually gets me up and out of the area because he knows that I don’t like him making noises in public” (personal communication, March 27, 2017). The dog purposely whines when he knows that his handler is feeling nervous, not because he needs to go outside or exit the area, but because he knows that his handler needs to. Similar to the previous quote, another participant stated, “[The dog] nudges my hand, forces me to focus on him... If in public, he pulls me away from crowds and stressful areas” (personal communication, April 4, 2017). Alleviating symptoms, whether that be by physical or emotional assistance, is the certified canine’s major role in their handler’s life.

Lost Without You

These veterans openly admitted that they would be completely lost without their canine. Before receiving services from their canines, the participants in the study were unsure about their futures. When a participant was asked if his life would be different without his dog, he

responded, “Oh, absolutely. I’d probably be... I don’t know where I’d be, but I don’t think I’d be in a good place” (personal communication, March 27, 2017). Another participant answered the same question with, “Oh (chuckles)... I would probably be a wreck, yeah. A lot more anxiousness at work; a lot more depression... We talk it out, we pet it out, or we walk it out—those are the three biggest things” (personal communication, March 24, 2017). Lastly, this participant answered with, “I don’t think I’d have very much of a life without my dog; he is my best friend and my biggest supporter” (personal communication, April 4, 2017). For these participants, receiving a certified canine has had a colossal, positive impact on their lives.

Life Restored

The final common theme found through these interviews was restoration of life as the participants used to know it. A participant talked about how hard it was to return from duty and be integrated into normal society again. He said, “...[his family and friends] just expect me to be me, the old me, and there is no old me like there used to be” (personal communication, March 27, 2017). This misunderstanding resulted in a lot of grief and depression within the family scope. Now, he reported, “Having [the dog] I’m able to be myself again... Yes, it’s only gonna get better!” (personal communication, March 27, 2017). This participant now has a more positive outlook of his future and believes that he is able to accomplish what he wants to do with his life. The other participant had to stop working due to her mental health status, which led to a decreased sense of self-worth and appreciation. Since receiving her canine, she was able to return to her place of employment full-time. She said, “I pet her before I go to work so I can just get to work, so that I can get back home” (personal communication, March 24, 2017). Even though she admitted that her anxiety level still rises the longer she is away from her dog, she was able to return to doing an occupation that is meaningful to her. When asked if the participant could go

back in time and change anything about the process of acquiring a certified canine, his only response was, “I would inquire about adopting him a lot sooner” (personal communication, April 4, 2017). It is obvious from these statements that life with their canines drastically beats life without their canines for these participants; they can finally be themselves again.

Discussion

Conclusion

The thematic analysis of this qualitative study suggests that receiving assistance from a certified canine can be beneficial to veterans that with a war-related trauma disorder. The five major themes that were collected from this research are as follows: canines reduce isolation and improve social participation in veterans, canines provide an instant connection to veterans, canines can help alleviate symptoms of emotional distress in veterans, canines can make an enormous difference in the overall quality of lives of veterans, and canines have helped restore order to the lives of veterans.

Importance of Effective Treatment

The use of evidence-based practice (EBP) is becoming the acceptable mode of treatment for any form of disability or condition. Diehl, Cook, and Pickett (n.d.) define EBP as, “An intervention that has been shown to be effective by causing pre-determined outcomes in people’s lives when tested in a randomized control trial” (slide 9). Evidence-based practice integrates appraised research, clinical expertise, client preference, beliefs, and values into treatment (American Occupational Therapy Association, 2017). Evidence-based practice truly proves the importance and validity of any profession. Without research verifying treatment outcomes, how do consumers and their families know that what the professional is recommending is effective? Evidence-based practice proves that the specified treatment works, increases patient adherence to

treatment, promotes recovery, and advocates for the most efficient and effective ways to spend public dollar (i.e. Medicare coverage) (Diehl, Cook, & Pickett, n.d.).

Limitations and Future Directions

There are several limitations to this study. This pilot study was conducted using a participant pool of only three individuals. In order for this research to be credible, the study would have benefitted from a larger participant pool. A larger participant pool would have been further strengthened by recruitment of individuals from a wide range of ages, disabilities, time served in active combat, different wars and locations served, and current geographical location. War is a chronic phenomenon in the United States, and collecting data for a longer period of time across generations may result in more measurable, attainable data to determine varying benefits across different ages of veterans.

There is currently limited research has shown the effectiveness of having a certified canine specifically for veterans who struggle with war-related trauma disorders. More research is needed in order for it to be considered an appropriate and safe intervention for managing physical and mental disabilities from the professional medical community. “The concept of involving animals in therapy has only been investigated academically since the mid-1960s,” which makes it a relatively new practice area of research (Urichuk & Anderson, 2003, p. 29). Veterans would benefit from studies involving psychometric properties that measure outcomes of having a certified canine for veterans versus going through life without one; however, creating a means to measure that objectively has been proven challenging. Further, strict protocols for what is defined as a “certified canine” and how to go about training one needs to be formalized and accredited to one set guideline in order for the practice to be uniform. Regardless of the research’s limitations, the emotional benefits of having an animal companion cannot be denied.

Establishing funding, improving research design, and delineating precepts for this area of intervention needs to be sought out by health professionals from all backgrounds in order to provide veterans with the most effective treatments they so rightfully need and deserve.

Appendix A - Recruitment

Email Script

Hello,

Our names are Lauren Smith and Erin Caspers, and we are students at Western Michigan University studying occupational therapy. We are also members of the Lee Honors College, in which we are required to complete and defend an honors thesis of our chosen topic before graduation. We will be graduating in April of 2017 and have decided on completing and defending our thesis together. The title of our thesis is: “Therapeutic Benefits of Certified Service Canines for Support of Veterans with War-Related Trauma Disorders”.

We are looking for participants for our study that receive services from a certified canine and would be interested in being interviewed. The interview will last roughly 45-60 minutes, depending on how much information the interviewee would like to render. Full details of the study, commitment, costs, rewards, etc. can be found in the informed consent document attached to this email.

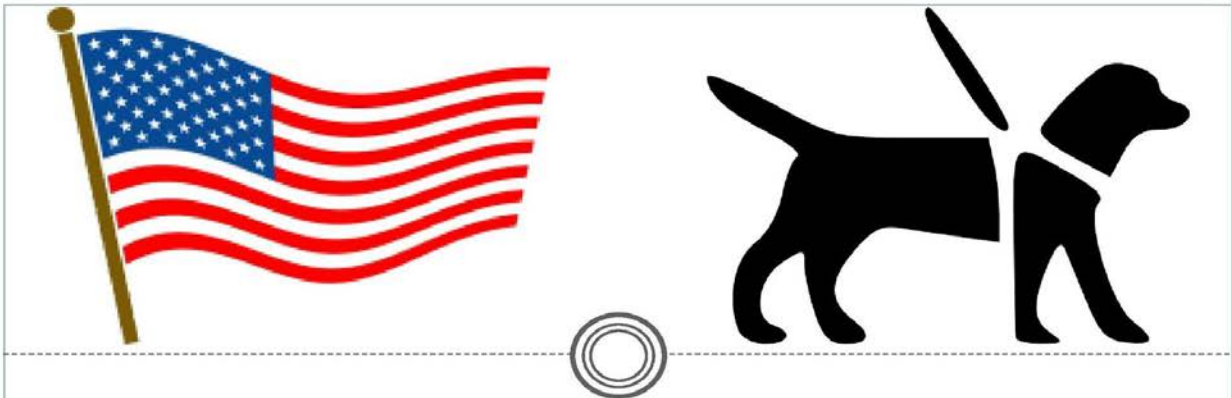
We are looking forward to hearing back from you! Do not hesitate to contact either of us via email (lauren.m28.smith@wmich.edu or erin.k.caspers@wmich.edu) if you have any further questions. You may also contact our thesis chair, Dr. Ben Atchison, at ben.atchison@wmich.edu. Please respond to this email either way (if you think individuals may be interested or not) so that we can move forward with our participant searching process.

Thank you in advance for your consideration and time.

Best,

*Lauren Smith and Erin Caspers
Western Michigan University*

Flyer



Are you a veteran receiving assistance from a certified canine? Help us out!

Join Western Michigan University students in conducting a study about how certified service canines assist veterans with their every day tasks!

Please take strip below and contact Dr. Ben Atchison for more info.

Anticipated risks, costs (none), and full details will be provided.

Students are fully screened by the WMU Human Subject Institutional Review Board.

Ben Atchison, Ph.D., OTR/L
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Appendix B - Interview

Interview Questions

Background Information:

Age _____

Marital Status _____

Occupational History _____

Duration of Military Service _____

War(s)/Location served: _____

When did you first start receiving services from canine _____

Interview Questions:

- Where did you complete active duty?
- Is your dog considered a service dog, a therapy dog, an emotional support dog, or companion dog?
- What service/organization provided you with your service dog?
- Describe your first month with your dog. (Adjustment period?)
- Have you ever faced any accessibility issues with your dog? Public businesses/buildings? Flights? Hotels? Restaurants?
- How does/did your dog fit in with your family?
- Has it ever felt difficult to care for your dog? Expenses? Responsibility? Time constraints?
- What, if any, duties does your dog perform for you?
- If you're separated from your dog, how do you cope?
- Do you attend counseling or receive other mental health services?
- If you could do the whole process over, would you change anything?
- If you are upset or sad, what actions does your dog take to comfort or distract you?
- Do you feel your life would be different without your dog? If so, how?
- Did you seek professional help yourself or was it recommended to you?
- Have you ever felt that you have been treated differently because of your service dog?

Appendix C – Informed Consent

Principal Investigator: Ben Atchison, PhD, OTRL, FAOTA

Co-Student Investigator: Erin Caspers

Co-Student Investigator: Lauren Smith

Title of Study: Therapeutic Benefits of Certified Canines for Support of Veterans with War-Related Trauma Disorders

You are invited to participate in a research project. The project is titled *Therapeutic Benefits of Certified Canines for Support of Veterans with War-Related Trauma Disorders*. This project is Erin Caspers and Lauren Smith's thesis for the Lee Honors College at Western Michigan University. This document will explain the purpose of this research project and will cover many things. Time commitments, the strategies used in the study, and the risks and benefits of being a part of this research project are included. Please read this consent form with care and ask any questions if you need help.

What are we trying to find out in this study?

The benefits service dogs could give veterans with war-related trauma disorders (PTSD, anxiety, depression, social isolation, etc.).

Who can participate in this study?

Must be a veteran receiving support from a service dog.

Where will this study take place?

This study will take place in a private area chosen by the interviewers and the interviewees.

What is the time commitment for involving yourself in this study?

You are being asked to participate in an interview lasting 45-60 minutes, based on the information you want to share. This will be a one-time commitment of your time.

What are you asked to do if you choose to participate in this study?

If you choose to be in this study, you are asked to answer questions related to how your service dog has helped you in your life.

What information is measured during this study?

The information being measured in the study will focus on quality of life, coping strategies, social involvement, mental health, and overall health.

What are the risks of engaging in this study and how can these risks be minimized?

The anticipated risks of participating in this study include discomfort related to the questions. However, the interviewers have been trained in talking with vulnerable populations and will end the interview if needed. If your emotional distress continues, counseling services are available at the following locations.

- Battle Creek VA Medical Center: (888) 214-1247
- Behavioral Health Services, Unified Clinics: (269) 387-7000
- Community Mental Health and Substance Abuse Services: (269) 553-8000

Data collected from the interviews will be recorded, but the analysis of the study will not reveal the names of any people.

What are the benefits of participating in this study?

The most important benefit is that you will be able to add to our understanding of how service dogs can assist veterans struggling with war-related trauma disorders. What we learn from this study may help us provide more research to this population. However, there are no direct benefits of participating in this study.

Are there any costs associated with participating in this study?

There are no costs associated with participating in this study, except for time.

Is there any pay for participating in this study?

There is no pay for participating in this study.

Who will have access to the data collected during this study?

All of the information from your session will be held in strict privacy. Only members of the research team will see any of the information from the interviews.

What if you want to stop participating in this study?

You can choose to stop participating in the study at any time for any reason. You will not suffer any penalty for your decision to stop your participation. You will experience NO consequences if you choose to withdraw from this study. Your service dog will not be affected in any way by your decision to participate and/or pull from this study. The investigator can also decide to stop your participation in the study without your consent.

If you have any questions before or during the study, you can contact the principal investigator, Ben Atchison at (269) 387-7270 or ben.atchison@wmich.edu, and/or the co-student investigators, Erin Caspers at (989) 450-0972 or erin.k.caspers@wmich.edu, and Lauren Smith at (269) 830-8071 or lauren.m28.smith@wmich.edu. You may also contact the Chair, Human Subjects Institutional Review Board, and Western Michigan University at (269) 387-8293 or the Vice President for Research at (269) 387-8298 if questions come up during the course of the study. The Human Subjects Institutional Review Board (HSIRB) has approved this consent document for use for one year by the stamped date and signature of the board chair in the upper right corner. Do not partake in this study if the stamped date is older than one year.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study.

Please Print Your Name:

Participant's Signature

Date

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