Posttraumatic Stress Disorder (PTSD) Overview: Research & Findings

Overview

Posttraumatic Stress Disorder (PTSD) is an anxiety disorder that afflicts some people who live through or see a traumatic event. In PTSD, the natural “fight-or-flight” response is damaged or changed causing the sufferer to manifest three broad classes of symptoms: re-experiencing, avoidance, and hyperarousal symptoms. Re-experiencing symptoms include flashbacks, bad dreams, and frightening thoughts. Avoidance symptoms include staying away from places, events, or objects that are reminders of the event, feeling emotionally numb, strong guilt, depression, and worry. Some symptoms of hyperarousal include being easily startled, feeling tense, or having difficulty sleeping (National Center for PTSD 2011).

Though commonly associated with war veterans, anyone can get PTSD. People who have lived through physical or sexual assault, disasters (such as Hurricane Katrina), domestic violence, accidents, can potentially develop the disorder, though it is important to note that not everybody who lives through such events will get PTSD. Suffers of PTSD often find it difficult to be in crowded places, to sleep, and to interact with friends and family members. Traditional treatment approaches for PTSD have included types of cognitive therapy and medication. However, new treatments for PTSD are being explored by utilizing the human-animal bond. Initial research has suggested that animal-assisted therapy can help alleviate the symptoms of PTSD.

Researchers and therapists have found that animals can be used effectively in a therapy setting to help the patient feel more relaxed and comfortable. Dogs can be trained to calmly go up to the patient and wait to be petted, touched, or push toys toward the patient (Lefkowitz 2005). Having the animal nearby appears to “help shift the focus off the patient’s symptoms of illness by distracting them from their current situation and helping them relax in order to improve their overall well-being” (Matuszek 2010, 192). For patients unwilling to trust after a traumatic event, the subtle cues of a therapy dog can encourage the patient to open up and talk to the therapist. Patients are also more likely to follow through with therapy when an animal co-therapist is involved (Lefkowitz 2005).

Contact with an animal can have immediate physical benefits, like the release of oxytocin (Yount et al 2012) and endorphins in the brain (Matuszek 2010, 189). The human-animal bond is also believed to help “reduce blood pressure, heart rate, loneliness, and cholesterol” (191). Anecdotal evidence from service members with PTSD report improved sleep, decrease use of pain medications, and lowered stress levels among other benefits after engaging in service dog training programs (Yount et al 2012, 65).

Though the benefits of human and animal interactions are well documented, AAT still remains a controversial topic in patient care because a relative scarcity of scientifically controlled trials, meaning randomized and controlled studies (Shubert 2012, 24). Much of the research has been “descriptive, hypothesis generating studies” (Beck et al 1984). However, several researchers, such as Sarah Matuszek and Eric Altschuler, have laid out proposals for scientific studies of the
benefits of the human-animal bond in therapy to test hypotheses proposed in earlier work.

**State of Current Research**

Because of ongoing conflict, much of the current research surrounding AAT and PTSD comes from the military. In order to care for veterans returning from conflict zones new methods to treat PTSD utilizing the human-animal bond are being explored because of related benefits of AAT with related psychiatric cases. Much of the following will be a summary of research undertaken by the military, as well as other researchers.

Dr. Eric Altschuler describes in his 1999 article, “Pet-Facilitated Therapy for Posttraumatic Stress Disorder“, the history of pet facilitated therapy (PFT). One of the first documented uses of PFT originated from the York Retreat in York, England in 1792 (Altschuler 1999, 29). Pets were used as positive reinforcement to encourage patients to care for themselves. Dr. Altschuler theorized that PFT could be used to treat PTSD, which has proved to be resistant to medication. He further describes a possible set up for a randomized, but unblended, trial to test the effectiveness of PFT in a modern setting.

The April-June 2012 issue of The United States Army Medical Department Journal includes more articles concerning the use of canines in therapy roles as well as history and details of deployment. A few key points have been highlighted here, but those looking for more in-depth information should feel free to access the journal, which is available for free online.

There are a variety of classifications for animals in therapy and non-therapy roles. The human-animal bond is at the core of many therapeutic approaches using various species, particularly canines (Mills 2012, 12). There are different classifications for animals in helping roles. Service dogs include guide dogs, hearing dogs, and general service dogs (dogs are the focus because of their trainability and 12,000 year history as human companion animals). LTC James T. Mills and MAJ Arthur F. Yeager’s article “Definitions of Animals Used in Healthcare Settings” provides an overview of the use and definitions of animals in various service and domestic roles (for more specifics, see the table on page 14 of their article).

According to LCDR Kathleen Watkins, canines have been used for therapy in the military as early as 1940 (Watkins 2012, 8). However, there has been little investigation into how useful canines are as therapy animals. Humans have a long history of involvement and interaction with canines, “the longest recognized domesticated animal“ (8). MG David Rubenstein notes that canines have provided people with “assistance in hunting and security, as well as companionship throughout history, and continues to serve in those other capacities today“ (Rubenstein 2012, 1). Service dogs are now finding new roles in animal assisted therapy (AAT) programs for the service members (SMs) returning from combat. The Veterans Administration uses canines in conjunction with programs like Wounded Warriors to help reintegrate SMs into civilian life.

Very few in-depth studies have been done concerning the benefits of canines in animal-assisted therapy (AAT) roles for service members. The article "The Effects of Animal-Assisted Therapy
on Wounded Warriors in an Occupational Therapy Life Skills Program” by CPT Christine E. Beck et al. was “the first study to formally assess the benefits of AAT with wounded service members in garrison” (Beck et al, 2012 38). The study included 24 SMs interacting with AAT canines to investigate if there was a correlation between a non-AAT group and an AAT group (41). The study tested for 6 dimensions of mood: tension-anxiety, depression-dejection, anger-hostility, fatigue-inertia, and confusion-bewilderment. The study was not conclusive. It found no difference between the two groups involving use of AAT. The study notes that this was a small subject pool and possible areas for improvement could involve expanding the study to include more subjects.

The units of the military devoted to a soldier’s mental health are combat and operational stress control (COSC) teams. Ret Col Elspeth Ritchie says these units have been active in the US Army since 1992 (Ritchie 2012, 5). Animal assisted therapy was implemented in 2007 (5). America’s VetDogs donated two black Labrador retrievers for use and training as therapy dogs. The dogs are taken care of by their handlers and army veterinarians. Unexpectedly, besides the stresses of being in combat zones, major stresses to the canines came from being overfed by service members (6). Service members want to feed the dogs when the dogs are brought to the forward operating bases. For the SMs, this is a common show of affection from home, a reminder of the family pet at the table. However, it is difficult to keep the canines in top physical condition if they are being overfed.

A certified service dog-trainer named Rick Yount created the first Warrior dog-training program. Evidence for benefits relies on anecdotal accounts of how the dogs have impacted the lives of SMs. Service members involved with the Warrior Canine Connection (WCC) program train therapy dogs, providing Wounded Warriors with PTSD “the opportunity to engage in highly focused, safe, positive social contact with dogs” (Yount et al, 2012, 64). Studies have shown that therapy dogs are effective at “reducing stress responses in healthy adults” and also at treating patients with psychiatric disorders (64). Soldiers reported that:

“It’s been great working with the dogs. They are helping me with my depression, anxiety, and sleep. With a WCC dog at my side, my stress measurements returned to normal for the first time.

The dogs have a drive to work and take care of people. They do so because they care, not because they have to. It’s great knowing that I am helping to train a service dog for a service member who has physical disabilities.” (65)

The dogs bring the SMs a sense of comfort and trust the SMs may have lost through their experiences.

Outside of the military, Carin Lefkowitz, Maurice Prout, and other researchers propose a new treatment model named Animal-Assisted Prolonged Exposure (AAPE). AAPE aims to mitigate the high dropout rate of the most successful treatment programs for PTSD, prolonged exposure (PE) programs. PE programs are multistep therapy programs that include relaxation techniques, talk therapy, and confronting the traumatic memories in a safe setting. In therapy, animals help make some individuals feel more relaxed and build a rapport with their therapist more quickly. A
calm dog can remind the person that there is nothing to be afraid of in a therapist’s office. Lefkowitz notes that the health benefits of long term exposure to companion animals can be applied to the person suffering from PTSD; lower anxiety, comfort, and greater feelings of security.

**Areas for Future Investigation**

There are many avenues of investigation into the human-animal bond and the treatment of PTSD. Some of these concerns have been highlighted in this section. These questions are meant to provoke some discussion and illuminate areas for potential research. The military has raised explicit questions regarding the feasibility and ethics of using animal-assisted therapy as part of their treatment programs. Many of the questions in this section were inspired by military studies and research.

How can the effectiveness of canines in relief of PTSD be measured given the difficulty of measuring PTSD symptoms, prevented suicides, or saved marriages? (Ritchie 6).

Given the costs of using animals in a therapy setting, how can therapists who are unfamiliar with AAT feasibly be trained to use AAT?

Are the classifications of service animals (LTC James Mills outlines on page 14 of his article) in need of an update? Do the classifications adequately reflect the role and contribution of canines in the military and in the treatment of PTSD? Is training a dog for a therapy role for PTSD different from other kinds of therapy training? If so, does that training require a different legal status for the canine?

While there have been numerous studies on how dogs can be used to help people, Jan Shubert notes that very little has been done to study the effect that continuous therapy sessions have on dogs (Shubert 2012, 25). Shubert outlines seven potential areas for inquiry into animal welfare:

1. Failure to provide for animals behavioral needs
2. Breeding or selection of animal-assistance animals
3. Failure to consider development events and processes
4. Use of inappropriate or inhumane training methods
5. Having unrealistic expectations of the animals
6. Using inappropriate equipment and facilities for the animals
7. Inadequately trained user

Shubert suggests looking at where the animals come from, the dog’s breeding stock and the donating organization’s breeding practices, as places to start inquiries. Butler points out “the act of hugging, on so accepted in many parts of human society, is one that is not only foreign to a dog’s nature, but is also an act that dogs can perceive as one of dominance and experience as stressful” (26). How can we care for the AAT dogs to mitigate the effects of experiences contrary to their natures?
May all service animals trained for therapy be used in the treatment of PTSD, or should that treatment be left to military trained canines? What areas of exploration might be open for cats and horses, or other kinds of trained animals?

**Key Resources**


Dr. Eric Altschuler makes a general call for research into pet facilitated therapy (PFT). He cites the history of PFT dating back to the 1790s as well as modern findings about the benefits of animal assisted therapy. He outlines a randomized unblended research model to test the benefits of PFT.


Tracy Geist’s article describes a lack of a unified conceptual framework for animal-assisted therapy approaches. Geist notes that without a scientific and quantifiable way to evaluate success it can be difficult for professionals to legitimize investing in therapy dogs. In the article, different fields of psychology and neurophysiology are discussed in relation to how AAT can help children get more out of therapy sessions. Studies that show measurable gains in attendance in certain kinds of AAT sessions are also cited.


Lefkowitz describes the how a new animal centered approach to prolonged therapy (PE) could help victims of sexual abuse from dropping out of PE programs. A sample animal assisted prolonged exposure program is described by the session. Possible and expected benefits are described as well based on previous research in the field. Considerations are also raised for the health and safety of therapy animals in this environment.


Sarah Matuszek provides a literature review aimed at summarizing, organizing, and sorting the literature on AAT within nursing specifically, looking at integration of AAT into nursing homes, hospice, rehabilitation, psychiatric, and pediatric care. The review aimed at being up-to-date (all articles chosen were published between 1999 and 2009), the literature had to be relevant to nursing and AAT, all articles were peer reviewed, and effects of AAT on their respective populations were mentioned. As with other sources, Matuszek notes the benefits of AAT, but also discusses some of the perceived risks, such as attitude toward animals, allergies, and cultural beliefs.
The United States Army Medical Department devoted an entire journal to the ways in which therapy animals, specifically canines, have been used to help both actively serving members and veterans deal with PTSD. Articles cover the history of therapy dog use in the military; therapy dogs at home and on the front lines; AAT and the Wounded Warriors; among many more articles all relating AAT and PTSD. The articles mention demonstrable benefits of AAT. They also raise concerns about the well being of therapy dogs and possible ways to mitigate harm and stress to the canines.

Further


Shubert, Jan (2012). Dogs and human health/mental health: from the pleasure of their company to the benefits of their assistance. The United States Army Medical Department Journal. 21-29.