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Cognitive-Behavioral Therapy: A Case Report -- Animal-Assisted Therapy

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Abstract

There are few quantitative studies on the benefits of animal-assisted therapy (AAT). Information about this modality consists mainly of anecdotal statements, testimonials, and case reports. However, recent research has demonstrated that the use of therapy dogs, integrated with more traditional forms of therapy, can improve therapeutic results.

This case report describes the treatment of a 10-year-old girl with posttraumatic stress disorder and a history of physical and sexual abuse. AAT was used as part of a broader cognitive-behavioral therapy intervention. The patient's behavior during therapy sessions was observed before and after the introduction of the therapy dog. There was a dramatic change in behavior and a subsequent report from her foster mother that behavior in the home improved.

Introduction

There is a perception in the healthcare community that the use of trained therapy dogs as an intervention results in benefits to both patients and staff. Research and documentation is sparse and consists mainly of testimonials and case reports. However, with the interest in using therapy dogs, research will be expanding. Case reports have stated that the use of animal-assisted therapy (AAT) employing therapy dogs can reduce anxiety; improve mood; and in children, improve behavior.^[1] This was observed with the therapy dog that is described in this case report, Kotter, a 3-year-old standard poodle.

The article first discusses a brief history of AAT, followed by a definition of AAT and animal-assisted activities (AAA). This is followed by a review of current research, and finally illustrated by a case study in which behavior during therapy sessions changed with the presence of Kotter within the context of cognitive-behavioral therapy (CBT) techniques.

History of AAT

York Retreat in England, an establishment that was founded by the Quakers for the treatment of mental illness, was the first to document the use of animals as an adjunct to therapy.^[1] However, there are others who shared these beliefs. The first and most surprising is Sigmund Freud. He believed that dogs had a "special sense" that allowed them to judge a person's character accurately. His favorite chow chow, Jo-Fi, attended all of his therapy sessions.

It is rumored that Freud depended on Jo-Fi for an assessment of a patient's mental state. Freud believed that Jo-Fi could signal a patient's level of tension by where he would lay in the room. If he stayed close to the patient, the patient was free of tension; if he lay across the room, the patient was tense. Freud thought that the presence of a dog had a calming influence on all patients, particularly children. It was also rumored that Jo-Fi would signal the end of Freud's sessions by pawing at the door.^[2] Having a dog in the session (along with his cigars, an office in his home, and his treasured pre-Columbian artifacts) is contradictory to Freud's position of seriousness of neutrality in psychoanalysis.

A second proponent of AAT was Boris Levinson. He discovered that he could reach a disturbed child during therapy sessions when his dog, Jingles, was present. He wrote about an unplanned intervention with a 9-year-old boy. The child's mother asked Levinson to see her son for treatment because the boy was extremely withdrawn, and past therapeutic experiences had not been successful. Levinson agreed to see the boy. As it happened, Levinson's dog, Jingles, was present when the boy was brought in. Jingles greeted the boy enthusiastically and the boy reacted positively.

Levinson believed that subsequent sessions with Jingles as his "co-therapist" established an atmosphere of trust and developed a solid relationship with the child. He presented his findings to the American Psychological Association (APA) convention in 1961. There were mixed reactions, but a later survey indicated that 16% of 319 psychologists actually used companion animals in their work with clients.^[3]

The Blacky test for children, which was developed by Blum in 1950,^[4] consists of 12 cartoon drawings of a black puppy of indeterminate sex (Blacky) engaged in ambiguous activities. The puppy lives with a sibling and both parents. Each of the drawings shows Blacky in a situation that is designed to evoke a psychoanalytically expected conflict, eg, anal sadism, sibling rivalry, Oedipal feelings, and anger. The child is asked to tell a story about what is going on in the picture and to then respond to a set of inquiry questions.^[4]

The Children's Apperception Test (CAT), which was developed in 1950 by Leopold and Sonia Bellak,^[5] is a projective technique that presents situations of special concern to children. It consists of 10 animal pictures in which the animals are in a number of social and family contexts involving the child in situations of conflict, identity confusion, role problems, family structure issues, and interpersonal interactions. A supplement (CAT-S) presents children with common family situations (ie, prolonged illness, physical disability, mother's pregnancy, or the separation of parents). The operative notion behind the CAT was that children would more easily respond to pictures of animals in family situations than to human figures in those same situations.^[5]

Finally, *Aesop's Fables*, the stories of H.C. Anderson, and *The Brothers Grimm* all used animals as metaphoric figures, so that animals are often anthropomorphized in human situations and would have human qualities of insight, empathy, and caring.

In a recent news release, the American Kennel Club presented Noodle, a registered therapy dog, the ACE award (Award for Canine Excellence). He is a silver standard poodle owned by Dr. Stacia Bjarnson, who trained him to be a therapy dog. Dr. Bjarnson, a psychologist, uses him in group and individual sessions at a special education school that is composed of 200 students with social, emotional, behavioral, and academic challenges. Dr. Bjarnson realized that the students who were challenged with social and emotional issues could benefit from "working" with Noodle. She found that children can talk about their feelings and thoughts in the presence of Noodle. She believed that it was much less threatening to talk about emotions when Noodle was present.^[6]

Certification for AAT

Delta Society is an international organization that certifies and registers pets that provide AAT. Their mission is to improve human health through service and therapy animals. They state: "Our vision is a world in which people are healthier and happier because companion, therapy, and service animals share our everyday lives."^[7] Delta Society is a nonprofit organization that unites people who have mental and physical disabilities and patients in healthcare facilities with professionally trained animals to help improve their health.

It is recommended by Delta Society that dogs used for AAT demonstrate obedience by completing a training and testing program. Certification with Delta Society or Therapy Dogs International requires the dog and handler to pass a basic obedience class, *Canine Good Citizen* test, and Therapy Dog test, all certified by the American Kennel Club. The handler must agree to follow the standards of Delta Society and maintain health and vaccination records yearly.

Delta Society's formal definition of AAT is as follows: "AAT is a goal-directed intervention in which an animal that meets specific criteria is an integral part of the treatment process. AAT is directed and/or delivered by a health/human service professional with specialized expertise and within the scope of practice of his/her profession.^[7]" The important aspect of this is that AAT aids in improvements in patients' physical, social, emotional, and cognitive functioning. They interpret cognitive functioning to mean thinking and intellectual skills. They report that this can be delivered in group or individual settings. They state that the requirements of AAT include specific goals and objectives and that the process and progress are measured and documented.^[7]

Delta Society further distinguishes between AAA and AAT. They believe that the word "activity" indicates greater participation. Their description of AAA is as follows: "AAA provides opportunities for motivational, educational, and/or recreational benefits to enhance quality of life. AAA are delivered in a variety of environments by a specially trained professional, paraprofessional, and/or volunteer in association with animals that meet specific criteria.^[7]"

In an article on AAT, Chandler offers some examples of AAA:

teaching the animal something new, engage in play with the animal and other types of appropriate interactions, learn about and practice care, grooming and feeding of the animal, and receive appropriate affection and acceptance with the animal, discuss how the animal may feel in certain situations, and learn gentle ways to handle animals.^[8]

Chandler added that AAT is not necessarily a style of therapy, but can be integrated with theories, such as CBT and rational emotive therapy. In regard to the dynamics of the positive impact, she also believes that animals can facilitate trust and relationship building in therapy. For some individuals, talking to an animal can be easier than revealing thoughts and intimate feelings directly to a therapist, especially if the problem or issue is difficult to talk about. While the human therapist "listens in," the communication with the animal is often perceived as "private." The animal can be seen as a friend who provides unconditional acceptance and caring.^[8]

Like Chandler, I have found that children find it easier to talk to Kotter and will tell him their "secrets" while I simply listen. Often I have observed an immediate change in mood when depressed patients encounter the dog. One patient said, as the dog approached, "He knows I'm sad today; that's why he came to me!" Kotter, like Freud's Jo-Fi, seems to "understand" when individuals are sad or closed in. Even if a patient is withdrawn and appears to not accept the presence of Kotter, he can be quite persistent just by remaining quiet and calm in the session, lying at the feet of the patient.

Research Findings

Quantitative research on AAT is sparse. Elisabeth Reichart, in a 1998 article about treatment of sexual abuse, stated that she could not find any research on the treatment of sexual abuse with AAT.^[9] She proposed the use of AAT as an adjunct to play therapy for treatment of sexually abused children and described treatment with her Dachshund, Buster.

A child, while petting and holding Buster, often became comfortable enough to disclose stories of sexual abuse. She reported that often children will whisper in his ear. If Buster's presence was not enough to help the child with disclosure, she used storytelling techniques.^[9] Therapeutic storytelling is a technique that uses metaphor and symbols to help children understand and express feelings that have been aroused or numbed by the abuse.^[10]

Reichart told the child a story about Buster going to the woods to play and returning with an invisible bandage over his mouth. Because of the bandage, Buster could not sleep and became irritable and withdrawn. Attempts by Buster's mother to help him just caused him to withdraw more. Eventually Buster was helped by an old dog who removed the invisible bandage, and Buster was able to tell his mother about a traumatic event in the woods. Reichart reported that the child did not disclose the abuse during the storytelling session, but at the next session, Buster gave her his paw as she disclosed the abuse.

Reichart stated that, from her experience with Buster and sexually abused children, the use of AAT as an adjunct to play therapy benefited the overall therapeutic process by reducing anxiety, helping the child disclose abuse and express feelings, and by promoting projection and identification of feelings.^[9]

A story that shows the use of AAA highlights a Labrador Retriever named Murphy. He helped a 4-year-old child with

cerebral palsy take her first steps. As the child took slow steps forward, Murphy would respond by taking steps backward, thereby motivating the child to continue taking steps. The dog did this without any commands. Suddenly the dog sat down, and the child said that she was ready to sit, too. She was able to take 4 steps for the first time in her life.^[11]

Research from Intermountain Therapy Animals (ITA) reported preliminary findings of an animal-assisted reading program. Therapy dogs visited a reading program in Salt Lake City, Utah, called Reading Educational Assistance Dogs (READ). They reported that all children in the program for 13 months increased their reading level by 2 grade levels, and some by 4 grade levels.^[12]

A study of middle-aged schizophrenic patients showed that over the course of a 9-month program, patients showed improvement in adaptive functioning. At the beginning of each session, the therapy dog went around asking for affection. This served to increase social interactions and engaged the patients enough to share their thoughts and feelings. Interventions with the therapy dog were gradually increased in complexity to include grooming and training techniques. An Independent Living Skills tool was then used to rate patients' behaviors. It was found that patients' health, domestic activities, and social skills improved significantly.^[13]

One survey was completed in an Australian pediatric unit. They wanted to analyze hospital staff attitudes with regard to a pet visitation program before and after implementation of the program. Prior to implementation, staff expressed the view that they expected that the pet visits would distract children from their illness, relax children, and that it was a worthwhile project. The survey after implementation showed that the staff's expectations were fully met. It was also found that the staff believed that the work environment was happier and more interesting. The nurses accepted the dogs and no longer worried about adverse affects, such as dog bites or dogs damaging equipment.^[14]

In a long-term care facility for children with multiple disabilities, Hemlich^[15] explained that the purpose of the study was to provide an objective format for evaluating the effectiveness of AAT. They had 1 therapy dog, a Labrador named Cody, and 14 participants. Using a Direct Observation Form and the Teacher's Report Form developed by Achenbach,^[16] and The Behavior Dimensions Rating Scale by Bullock and Wilson,^[17] improvement in children was found on 4 variables: attention span, physical movement, communication, and compliance.

They could not complete their study because Cody became ill. He had symptoms of Cushing's disease from an elevated cortisol level. Like human therapists, he may have been experiencing "burnout." It was believed that he was experiencing chronic stress from the intensity of the program. In this situation, staff found that the dog did not get enough breaks between sessions; children in hallways would engulf Cody, causing him to feel tentative; and some aggressive children purposely hurt him.^[15]

The researchers recommended that when starting AAT, stress in the service animal should be prevented; administrative support should be in place; and all staff should be educated on AAA.

The Treatment of Posttraumatic Stress Disorder

Treatment of posttraumatic stress disorder (PTSD) in children includes behavioral interventions, cognitive-behavioral interventions, psychoeducation, medication, and play therapy.^[18] The National Institute of Mental Health supports the use of CBT in the treatment of PTSD and other anxiety disorders.^[19]

Behavioral interventions include techniques to increase the child's sense of safety and security. Parents and caregivers are encouraged to set family rules, provide structure with a consistent schedule, and set clearly defined roles and responsibilities. Children who have been traumatized by sexual or physical abuse should be provided with privacy and boundaries.^[19]

Cognitive-behavioral interventions include teaching the child coping techniques and strategies for dealing with nightmares, intrusive thoughts, and panic. This involves relaxation techniques, distraction, and social support. For many children, there is a numbing of feelings and a resulting hypoarousal or hyperarousal, resulting in increased reactivity. It is important to teach children about feelings and thoughts and provide them with skills to express them.^[20] Children can be taught "helpful thoughts" in order to improve behavior and self-esteem.^[21]

Exposure to traumatic stimuli is another cognitive-behavioral treatment for PTSD. It is recommended that some form of exposure be included in the treatment for PTSD. The benefits of this include a reduction of anxiety, the blocking of

negative reinforcement that results in fear reduction when avoiding trauma-related thoughts and feelings, the incorporation of safety information when trauma memory is recounted in a safe environment, and differentiation of the traumatic event from daily life. This changes the meaning of PTSD from a sign of failure to one of mastery and courage, and challenges the negative evaluations of the patients.^[22]

Play therapy is often used and is either nondirective or minimally directive to help children reveal details of the trauma or help them identify feelings and thoughts that are related to the trauma.^[23]

Case Study: Annie, a 10-Year-Old With a History of Abuse

Annie was a 10-year-old girl who presented for therapy with her foster mother. Her presenting problems included lying, stealing, hyperactivity, sexually acting out with the family dog, masturbating, aggressive behaviors with her siblings, temper tantrums, enuresis, and an inability to become calm and relaxed. Her history included chronic sexual abuse by her stepfather (which usually occurred in the bathtub during the night), physical abuse, nightmares, panic when seeing men who looked like her stepfather, hypervigilance at night, inability to concentrate, hyperactivity, and numbing of feelings. These behaviors meet the criteria for PTSD in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (*DSM-IV-TR*).^[24]

The initial treatment goals for Annie were:

- Provide a sense of safety;
- Stabilize her mood;
- Manage her aggressive behaviors;
- Increase her attention span and ability to focus; and
- Eliminate her sexual acting-out behaviors.

Because Annie had a history of sexually acting out with animals, hurting animals, and aggression toward her siblings, Kotter was not introduced until she understood the rules for interaction with Kotter. This was done for her sense of safety, her ability to comply with rules, and for Kotter's safety. Because she was anxious to meet the dog and saw this as a reward, she first showed adherence to playroom rules.

Her first session with Kotter was structured as follows: the explanation of Kotter's rules, her expressed agreement with the rules, the introduction of Kotter and her getting to know him, petting Kotter and staying relaxed, talking to Kotter, telling a therapeutic story about Kotter's behavior, and telling him goodbye.

Kotter's rules were as follows:

1. Allow him to sniff the back of your hand first;
2. Stay calm and still;
3. Pet him only on his muzzle, head, ears, back, and paws;
4. Only the (therapist) handler gives him commands, unless you are given permission to give him a command;
5. Always be gentle;
6. Do not feed him unless the therapist gives you a treat to give him; and
7. Do not get loud or rough.

Annie's behaviors before and after the introduction of Kotter were observed and were as follows.

Before:

- Constant body movements that included walking around the room, touching everything, opening desk drawers, and trying to take things, such as crayons, pencils, and stuffed animals;
- Constant talking with an inability to focus on one topic;
- Difficulty following rules;
- Difficulty remaining calm, balanced — despite efforts to institute relaxation techniques;
- Could not identify feelings or show empathy for anyone who she hurt;
- Appeared rough and uncaring; and
- Did not respect boundaries or personal space.

During her first session with Kotter, the following behaviors were observed:

- Sat quietly on the floor with Kotter's head in her lap;
- Listened to a therapeutic story and then drew a picture of her foster family;
- Followed every rule with regard to Kotter;
- Muscle relaxation was noted;
- Shared thoughts and feelings about her mother;
- Was gentle and caring with Kotter; and
- Petted Kotter according to the rules.

In subsequent sessions with Kotter, Annie was able to disclose more memories of abuse in this safe and secure atmosphere. Since this time, her behavior at home and at school has been reported to be improved. At night, her foster mother reminds her of the feelings of calmness while with Kotter. This seems to have reduced her anxiety at night, enabled her to sleep, and not disturb her siblings.

Her ability to follow rules and structure in session with Kotter allowed her to use these skills in completing homework assignments during homework time and follow the rules that her foster parents established around bedtime activities. Her foster mother reported that when Annie was introduced to a Shih Tzu, the dog of a family friend, she announced that no one could hurt the dog by hitting or poking it and she demonstrated ways to pet the dog — just like she petted Kotter.

Annie is still struggling with aggressive behaviors with her siblings and peers at school. However, she has not been aggressive toward Kotter and is always gentle.

Summary

Although quantitative research in the area of AAT is sparse, it is beginning to expand and show that there are many benefits to AAT, especially when integrated with other accepted forms of therapy. The case study of Annie showed that with AAT, she could manage her behavior and demonstrate a sense of calm. She felt empowered by her ability to keep the dog calm. She felt a sense of accomplishment and responsibility in not needing constant reminders and redirections during therapy. She was also able to show compassion and caring toward another being.

From the available research and anecdotal reports, it appears that AAT is beneficial and that it is important to have properly trained animals when instituting programs. The average pet is not acceptable because special training is needed for both the animal and the trainer. Administrative support is essential, and all staff in contact with the animal need to be trained. Rules and guidelines need to be established for the safety of patients, staff, and the animal. This is an area in which further research would be of benefit to the delivery of care to patients.

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