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2023-II

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Asst. Prof. Nergis Ramo AKGÜN

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EDITOR

Assist. Prof. Dr. Nergis RAMO AKGÜN

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PREFACE

Since societies are constantly moving and focused on development, educational organizations should improve their education processes. Today, we could say that the most significant change has occurred in technology. The digital transformation experienced with the development of technology has also caused educational organizations to be affected by this transformation. Educational organizations should be ahead of society and lead change to meet social needs. Being a learning organization of educational organizations is closely related to the transformations they will experience. For this reason, it is crucial to address the development processes of educational organizations.

I hope that the perspective presented by this book will be beneficial for educators and offer a different perspective on the digital transformation of the education process. I would like to thank esteemed academicians and the EFE ACADEMY family, who contributed to the book's preparation.

Editor

Assist. Prof. Dr. Nergis RAMO AKGÜN

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ANIMAL ASSISTED THERAPY FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS

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INTRODUCTION

Although the term animal assisted therapy is relatively new, the use of animals to help people overcome a disease or condition is not a new idea. More than 2 million years ago, humans have begun to domesticate animals, and as early as Ancient Greece, people have begun to notice the mental and physical benefits of interacting with animals. (All & Loving, 1999). John Locke has written in his lectures about the use of tiny animals to foster empathy and responsibility in children around the 1600s, which is when the earliest historical accounts of animals contributing to human well-being first appeared (Fine, 2019). In 1792 in England, the use of farm animals in the treatment of patients with mental disorders has been noted in order to reduce isolation and restrictions (Baun & McCabe, 2000).

In Belgium, where animals and people have been rehabilitated together and animals have been a vital element of human natural treatment, the oldest usage of animals for therapeutic purposes has been noted. Animals were later employed for therapeutic purposes in shelters for the homeless and mentally ill persons in Germany, and in 1942, in America, they were utilized to help treat and mend wartime physical disabilities. (McCulloch, 1986). In 1960, psychologist Boris Levinson has conceptualized the relationship between humans and animals and added the term animal therapist, using his dog to work with an introverted mentally disabled child, noticing significant positive changes (Fine, 2019). In 1977 in Portland, Oregon - America, the "Delta Foundation" has been founded by Leo K. Bustad (veterinarian) and two psychiatrist brothers Michael J. McCulloch and William 'Bill' McCulloch, which has changed its name from a foundation to a company in 1981 and has been dealing with the research and monitoring of humans and animals and their interrelationships. The association has been constantly expanding its activities, in 2012 it has been renamed in "Pet partners" and in addition to different research's, it also offers various animal therapy services (Altschiller, 2011).

The animal assisted interventions, such as services with therapeutic, physical and recreational benefits can be implemented with different animals. These interventions have been usually applied to patients with physical, intellectual, psychological, neurological and motor disabilities. Before application, it is necessary to make examinations and evaluations in order to determine possible contraindications (Mims & Waddell, 2016).

Implementation of the intervention may require the involvement of a multidisciplinary team with different tasks and responsibilities, depending on the intervention. The intervention itself using animals is divided into three categories (Weswnber et al., 2019):

1. Animal Assisted Therapy – an intervention that is applied as a support to other therapies (co-therapy) and focuses on the treatment of physical problems, intellectual, psychological, cognitive, emotional, relational, neurological and motor disorders, and is applied to patients affected by physical, mental, sensory or multiple pathologies.

2. Animal Assisted Education – educational and/or rehabilitative intervention intended for healthy, but also persons with developmental disabilities, who have behavioral disorders. The intervention is aimed at improving the psychophysical and social well-being and quality of life of the persons, increasing the self-esteem in the person. Behavioral re-education is achieved through the mediation of animals. This intervention is usually applied to prolonged hospitalization or readmissions to rehabilitation centers, relational difficulties (attachment problems) in childhood or adolescence, emotional disorders, behavioral difficulties and problems, and sociocultural adaptation problems.

3. Animal Assisted Activity – episodic, recreational intervention intended for healthy people and people with disabilities, with the aim of improving their quality of life. In the activities, the relationship with animals is a source of knowledge and sensory-emotional stimulation, they are applied individually or in groups (for the elderly, people with learning difficulties or physical disabilities, young people in rehabilitation centers, schools or hospitals). In some cases, activities with animals are an introductory step in education and therapy and aim to develop skills through caring for animals, increasing openness and stimulating motor activity.

In general, all three categories of interventions are performed with the help of a multidisciplinary team, where each member is trained in animal interventions. The animal used for the intervention is previously subjected to a detailed veterinary examination and its behavior is monitored during the entire intervention. All animals involved, especially those exposed to direct contact and activities, must be trained and educated in specific training, in order to acquire the necessary competencies (Brelsford et al., 2017).

Therapy with dogs

The dog is the first animal that man domesticated and kept at home. In a tomb in Israel dating back to 14,000 years ago, the remains of a man have been found lying with one hand on the chest of a small dog. The history of human evolution is believed to be directly related to the evolution of dogs, which is believed to have caused functional changes in the human brain. In the Middle Ages in Belgium, the therapeutic use of dogs in the treatment of people with developmental disabilities has been noted (Matuszek, 2010).

Regardless of which form of intervention will be applied, the dogs used should always be well trained and prepared for different situations and contacts with people. The dogs may be of different breeds and with different personalities, but all of them must possess certain characteristics necessary for the successful implementation of the intervention: to be calm, stable (not explosive), not to be aggressive, to be able to inhibit their impulses, to manage in unpredictable situations (slippery floor, strong smells, loud noises, etc.) tolerant to hugs and unknown people, to have a desire to play and cooperate. Before the training, the dogs undergo an evaluation, in addition to the physical examination, their age, their character and the relationship with the guardian are evaluated, too. The training of the dogs lasts about 6 weeks (LaJoie, 2003).

There are three basic types of dogs' interventions (Lundqvist et al, 2017):

1. Dogs for therapeutic visits: these are pets that the owners occasionally bring to visit patients who have been hospitalized for a long time in hospitals, nursing homes, rehabilitation institutions. Dogs can help them improve their psychophysical condition. According to research, contact with dogs causes the creation of oxytocin (relationship hormone), dopamine (happiness hormone) and a reduction in the amount of cortisol (stress hormone).

2. Dogs used as mediators in treatment and rehabilitation: they help physiotherapists, occupational therapists, special education teachers, speech therapists in realizing the goals of treatment and recovery of the students with special educational needs. They enable improvement of gross and fine motor skills, vision-motor coordination, balance, speech, interaction.

The "Reading Dogs" technique is a newer type of intervention. The program has been created in order to help growing number of children with difficulties in reading and language expression to build and develop their verbal abilities and vocabulary, to improve the ability to understand what is read, to develop self-confidence because dogs are passive listeners who can act motivating, stimulating and calming.

3. Assistance dogs: These dogs usually work in nursing or foster homes and are well trained to help users with daily tasks without being dependent on another person. They are found in three categories (Glenk, 2017):

- Guide dog for blind people,
- Dog alarm for deaf people,
- Wheelchair Guide for Physically Disabled Persons,
- Diabetes Alarm - These service dogs can provide independence and safety by alerting to chemical changes in their owners' blood sugar. Changes associated with hyperglycemic or hypoglycemic events in diabetics are imperceptible to humans, but dogs can alert to spikes in blood sugar before levels become dangerous.
- Seizure Alert Dogs - Seizure alert dogs are able to react with a specific type of behavior immediately before a seizure occurs. The ability to predict seizures appears to be a natural ability for a small number of dogs, although some neuroscience experts say there is no reliable evidence to suggest that dogs can reliably predict seizures. On the other hand, many patients, families and trainers insist that their dogs accurately predict and warn of seizures.
- Seizure Assistance Dogs - Not to be confused with seizure alert dogs, seizure response dogs are trained to assist a person experiencing an epileptic seizure, not to predict a seizure. These dogs can be trained to bark for help or press an alarm system during the epileptic attack of a person. They can also pull a person out of an unsafe place during a seizure and help the person recover when the seizure is over. These dogs may also bring medication or a phone to a person when the seizure is over (Marcoux, 2019).
- Psychiatric Dogs - These types of service dogs help people suffering from problems such as depression, anxiety, stress and most commonly post-traumatic stress disorder (PTSD). People in

this category can feel heightened alertness and anxiety about their safety, and service dogs can make them feel safer by doing things like entering the home before the human and turning on the lights. These dogs can also help people who have a fear of public places by creating a physical barrier between the user and others, giving them more personal space.

- Autism Spectrum Disorder Support Dogs - For children with Autism Spectrum Disorder, these types of dogs serve to help provide a sense of predictability as children navigate social environments, including school. Dogs can be a great help to children who have trouble connecting with classmates, because the dog acts as a mediator in social situations. In addition to improving a child's quality of life by reducing isolation and comforting a child during a stressful time, these dogs are trained to keep children from running away and can often track children if they do run away.
- Allergy Detection Dogs - With the rise of food allergies comes another type of medical service dog. Allergy detection dogs are trained to smell and alert to the smell of things like peanuts or gluten. Often partnered with children, allergy detection dogs can be trained to alert on allergy-causing odors at school, providing children with a greater sense of independence and giving parents a greater sense of security (Davis et al., 2004).

Training of therapy service dogs

There are positive aspects to every breed, but therapy dogs in particular need to be naturally calm and patient with people. A few of those calm and patient dog breeds good for therapy are: Labrador retriever, French bulldog, Greyhound, Golden retriever, Poodle, Pomeranian, Miniature poodle etc (Clark et al., 2020). Sakurama et al., (2023) noted that dogs chosen for therapy services should be well behaved, calm and composed when touched, good social skills, clean and healthy.

Dogs must reach maturity to qualify for therapy services, with many organizations overseas not allowing puppies under one year of age. In addition, many organizations require dogs to pass the Canine Good Citizen (CGC) obedience test, although others require a therapy-specific test instead

of the CGC. A dog that cannot "leave" the object on cue or interact with children in a friendly manner will fail the test (Karetnick, 2019).

The training of dogs for therapeutic services is carried out through special training organizations and by the dog owners themselves. In general, it takes about 1-2 years for owners to train their service dog. Sometimes it takes much longer or shorter, depending on various factors, such as the age of the dog, the experience of the trainer, the dog's previous training, the problem behavior of the dog itself, etc (Camp, 2001).

On the other hand, dogs used for activities or dog-assisted therapy should have at least 6-8 weeks of basic training. Therapy dogs need to be well trained with basic "obedience". If the dog is authorized or registered with a therapy dog organization, it should have a health certificate and a behavioral test by an authorized evaluator (Lavin Perez et al., 2021). An emotional support dog can be trained on basic commands in just a few weeks. However, the dog's training is never complete. It is important to continue a dog training program throughout life. Not only is it good for the mental stimulation of the dog, but it is also great for preserving the bond between owner and dog (Karetnick, 2019)

The dog should be retired when it exhibits physical or mental health conditions that impair its ability to work. Tiredness can be dangerous for the dog and the people around it. It is very important to know the characteristics, signs and symptoms when a dog is not only tired, but also exhausted: Excessive excitement, Loss of self-control, Health problems, Changes in position, body movement, head and eye movement (different from usual), Increased sweating, Drooling, Shortness of breath / wheezing, Illumination, Shaking, Hair loss, Restlessness, Withdrawal / isolation, Increased muscle tone, Doubt, Aggression, Hyper alertness, Intensified startle reflex, Standing behind the boss, Self-harm, Changes in activities or appetite (Ng & Fine, 2019).

The average working life of a guide dog or therapy dog is six to seven years and they usually retire at around 10 or 11 years of age, depending on their health and the amount of work they have to do (Signal et al., 2017).

Therapy with horses (equinotherapy)

Horse domestication has been first recorded in Ukraine, 6000 BC. Horses have been initially used for faster movement and transfer from one

place to another, first individually, and from 2000 BC, they have been also associated with carriages. In the 21st century, they have begun to be used for sports and recreation (Anthony, 1991).

The first knowledge of the therapeutic use of horses dates back to 460 BC, when the Greeks have been using them as a means of improving the movement of patients, and in 19th century England it has been noted that riding a horse can improve the condition of people with disabilities, after which Oxford Hospital has offered horse riding therapy for military physically disabled people. Greater expansion of this type of therapy is observed in America and England, and the first official association for therapy with horse riding has been formed in 1969 in America (Rigby & Grandjean, 2016).

There are four basic types of equine therapy (Srinivasan, 2018):

1. **Equine psychotherapy** – conducted by a licensed therapist (alone or in collaboration with an equine expert) who provides and practices interaction between the client and the horse, in order to help people who have emotional and mental disorders, post-traumatic stress, anxiety, behavioral problems, etc. to overcome the conflict situation that leads to a crisis in their life and normal functioning.

2. **Learning with the help of horses** - enables personal development and experimental learning, and is effectively applied to young people and adults. Users are offered a multitude of emotional and social activities related to direct experience with horses (through riding or grooming), enabling the development of cognitive abilities, positive behavioral changes, increased self-awareness, environmental awareness, communication skills etc. The child needs to control and manage his behavior and emotions to cause desired behavior in the horse, because horses are able to reflect the emotions of the person they contact. The child also needs to learn to recognize and manifest nonverbal communication through the degree of tension and relaxation and body position.

3. **Hippo therapy** - It is carried out one-on-one by a licensed physiotherapist, occupational therapist, speech therapist or special education specialist and no horse saddles are used, the user is placed directly on the horse's back covered with a special blanket. The characteristic movements of

the horse (rhythmic and repetitive) are used to improve motor abilities, movements, sensory integration, cognition, concentration, attention.

4. **Therapeutic riding** – performed in the company of a riding instructor. It is about recreational riding that can be done individually and in groups and emphasis is placed on emotional connection, interaction, correct sitting, maintaining balance (Cuypers, De Ridder, & Strandheim, 2011).

Hippo therapy

Jančić (2010) defines hippo therapy as a medical procedure, physiotherapy with the help of a horse, as part of a program for therapeutic riding, led by a physiotherapist trained for it. Smaller horses and ponies trained for this therapy are usually used in this form of therapy (Jančić, 2010). Refers to a passive form of therapeutic riding, where the individual sits on the horse or is placed in various positions on the horse's back (eg reverse sitting – head turned towards the horse's tail, lying down, side facing, not holding or repeating movements shown by the therapist) and manages the horse's movements or tries to position himself comfortably during the movement. Such programs are led by a physiotherapist and take place individually. The team members have planned and devised the medical-therapeutic treatment in advance, whereby the user is physically, emotionally, mentally and socially engaged. According to Šuvak (2004), it is important that while the user is on the horse, he should be in motion, and the riding takes place without a saddle, while the user is expected to cooperate and constantly communicate with the horse and the therapist. This leads to a sharpening of the sense of balance of all forms of motility. The movements of the horse are transferred to the user and help to relax the rider, and the circulation in his muscles improves. The user is not a passive participant in the process, on the contrary, he actively participates in the exercise. It includes relaxation, stretching, stretching, reflex integration, and movement coordination.

The goal is to improve and stimulate the neurological and sensorimotor areas, that is, improve posture, coordination, body symmetry, balance, regulate muscle tone, increase flexibility and stabilize the pelvis.

Therapeutic riding

Therapeutic riding is a specific form of kinesitherapeutic activity that is carried out with the help of a horse, and is intended for children with physical, emotional and intellectual disabilities (Krmpotić, 2006).

According to Jančić (2010), therapeutic riding is intended and adapted for children with developmental difficulties, motor disorders and chronic diseases, as well as for people with mental and emotional difficulties. It contributes to improving the lives of people with disabilities.

Apart from the emotional aspect and the development of compassion, empathy, positive self-image, respect for authority, it also affects physical aspects, such as maintaining balance and developing a sense of symmetry. This is achieved by a movement of the horse that reflects on the user where it is necessary to involve the whole body in the process, to activate his muscles, joints and all the time balance with his body in harmony with the movement of the horse. The muscles that are activated by the horse's stride are difficult to activate or move in any other type of exercise (Laurent-Vannier et al., 2011).

The goal is to achieve certain therapeutic effects (cognitive, physical, emotional, social and educational) in people with different forms and degrees of physical, intellectual and emotional disorders. The movements of the horse match the movements of the user and are similar to those when moving, while adapting to the movements of the horse and maintaining balance help to develop senses and motor skills. It is considered an adjunctive therapy in the rehabilitation of various types of disorders, which acts as a compensation for walking (Lee, Kim & Na, 2014).

The therapy should be carried out by a therapeutic riding instructor who, in addition to medical knowledge, also has education about the horses, their anatomy, posture, training, and the equipment used in therapeutic riding. A specially written work program with set therapeutic goals, a description of the selected methods, procedures and use of props and didactic material, guided by the analysis of the evaluation of the therapeutic procedure, should be created for each child (Kwon, et al., 2019).

Application and Benefits

The application and benefits of this type of therapy can be seen in the following areas (Portaro, 2016):

- Regulation and improvement of muscle tone,
- Pelvic mobilization (stabilization),
- Improvement of body control,
- Reduction of involuntary movements.

Physical Benefits

Some of the physical benefits of therapeutic horseback riding are the following (Blažević et al, 2006):

- Development of balance and sense of symmetry – the movement of the horse throws the rider's body off balance and causes the rider's center of gravity to shift from one side to the other, as well as forward-backward or up-down. Thus, it is stimulating the development of the general sense of balance in space and the paravertebral muscles, trunk muscles and pelvic muscles.
- Improving coordination, quick reflexes and improving motor planning – riding a horse requires good coordination to get the desired response.
- Muscle strengthening – muscles are strengthened due to increased use during activity. Riding also engages the deep muscles that cannot be activated by conventional physical therapy. Placing the horse in different positions provides exercises for different muscle groups. Riding is an exercise, experienced as enjoyment, and because of that, the rider has greater tolerance and motivation for exercise.
- Stretching stiff muscles – gravity helps stretch the front leg muscles when the rider sits on the horse without stirrups. Riding with the stirrup helps stretch the Achilles tendon and calf muscles. Back and stomach muscles are stretched by maintaining an upright position while riding. Arm muscles are stretched during routine horse exercise or reining.

- Relaxation (reduction) of spasms – spasticity is reduced with the rhythmic movement of the horse. The heat from the horse encourages relaxation of the body, especially the legs. Stretching helps relieve spasms in the leg extensor muscles. Holding the reins helps relieve hand cramps. It also reduces fatigue and leads to relaxation.
- Improvement of joint movement – by reducing spasms, the range of motion in the joints increases. Also, the range of motion is improved and increased by repeatedly mounting and dismounting the horse, placing the saddle, grooming the horse and exercising during the class.
- Reduction of abnormal movements – by reducing the spasm and increasing the range of motion, the occurrence of abnormal movements is prevented.
- Improvement of circulation and respiration – with the two-stroke or three-stroke movement of the horse, breathing and circulation are improved. Among other things, vocalization is improved and facilitated.
- Improvement of appetite – the digestive system is also stimulated; the appetite also improves.
- Sensory integration – riding stimulates tactile sensation through the sense of touch and surrounding areas. The balance system is stimulated by the horse's movement, change of direction and speed. The sense of smell is encouraged and stimulated by the numerous smells that are in the barn and on the ranch. The sense of sight is used to control the horse, while the sounds in the environment stimulate the sense of hearing. All these senses and systems work together and integrated during the riding. The proprioceptors are also activated, thereby it is improving proprioception, the experience of the body in space.

Psychological benefits

- Improving self-confidence – self-confidence is gained by improving skills that are usually performed. The ability to control an animal that is much larger and stronger has a positive effect on self-esteem.

- Feeling of success – participation in the horse riding.
- Increased interest in the outside world – riding increases interest in the events around, the rider practically explores the world with the horse.
- Increased interest in one's own life – the excitement that riding provides, stimulate the riders' experiences.
- Emotional control and self-discipline – the rider begins to feel that he has more control over his life.
- Recognition and control of one's own emotions – the rider quickly realizes that it is necessary to establish control over the horse, as any uncontrolled emotion, loud shouting, crying, disturbs the horse.
- Development of patience – sometimes it is necessary to perform the skills with patience if the horse does not cooperate. Repetition of exercises by the rider helps develop patience (Blažević et al., 2006)

Social benefits

The program can be carried out in a group adapted to the abilities of the rider and his age. It is desirable for the group to get to know each other and communicate with each other, to exchange certain experiences, in the beginning about the activities around the horse and riding, exercise, and then for more complex tasks. In this way, there is interaction between groups, and a certain social relationship develops. The instructor has the task of directing and developing experiences in the group such as riding together, love for animals, the opportunity to get to know each other better, expressing the individual and his abilities. Users are also involved in the horses' care, i.e. feeding, cleaning, health care, thereby connecting with the horse, and developing a love for animals in general is supported, too (Blažević, Kolman, 2010).

Educational benefits

Riding and playing, as an integral part of therapeutic riding, for children of preschool age, requires adaptations of the learning program to new content (Scott, 2005):

- Provides the development of awareness of one's own body and a positive self-image,

- Refers to spatial and temporal relations,
- Development of visual perception,
- Development of auditory perception (naming specific objects, stimulation of listening and speaking);
- Tactile perception;
- Development of visual-motor coordination mostly through play (carrying objects, entering, fast and slow race, green and red light);
- Practicing balance and harmonizing the body with a certain movement.

Educational tasks can also be carried out for students with special educational needs, such as (Granados & Agis, 2011).

- Sensorimotor: development of gross motor skills, ability to move, balance, upright posture, muscle development, development of sense of hearing, smell, touch, perception, discrimination.
- Communication and speech development: reacting to sound stimuli, perceiving the difference between them, developing communication with facial expressions and gestures, creating sounds and voices, understanding facial expressions, gestures and speech.
- Self-care: training for independent self-care and protection from danger.
- Getting to know the environment (mastering the space and things, exemplary behavior and posture).
- Physical health culture: staying in nature, natural forms of movement, achieving balance and correct body posture, following a rhythm.
- Socialization: self-awareness, acceptance and understanding of other people, learning with cooperation, sharing with others, performing simple tasks, and learning in a natural situation.

Indications and Contraindications of therapeutic horse riding

Indications represent conditions and diagnoses, which can often be encountered in this type of therapy: spina bifida; sickle cell anemia– the

presence of sickle cells in the blood that do not carry nutrients like healthy blood cells; spinal cord injury, with the exception of spinal cord injuries in the neck area or chest damage; curvature of the spinal cord with less intensity (scoliosis, kyphosis, lordosis), a disease that has no structural changes in the brain; polio that leads to the deprivation of one or more groups of muscles; epilepsy or disorder of the central nervous system, characterized by uncontrolled discharge of neurons; head traumas, resulting in spasticity, athetosis or ataxia; multiple sclerosis characterized by ataxia and spasticity of the muscle trunk; muscular dystrophy in a mild form, which is the result of poor transfer of nutrients to the muscles (there are different forms of this disease which are progressive and degenerative); post-stroke condition with peripheral neurological symptoms, such as hemiparesis, with or without speech impediments; cerebrovascular stroke in which bleeding or blockage in the brain causes varying degrees of damage; a condition resulting from illness or other causes such as hearing or vision impairment; condition after limb amputation, caused by trauma or surgical intervention due to malignant or other disease; systematic joint inflammation in remission (Fry, 2013).

In certain conditions, practicing this type of therapy can lead to worsening of the condition. Some of the conditions are (Itković & Boras, 2003): specific inflammation of the joints; instability of the neck as a result of permanent damage; lack of bones in the skull, after craniotomy; hip sprain; osteoporosis of a more severe degree; osteogenesis imperfecta; pronounced damage to the spine; hydrocephalus with increased intracranial pressure; neuromuscular diseases with pronounced muscle fatigue; epilepsy – if they had seizures in the previous 6 months; pronounced problems with spina bifida or stroke; amputation of parts of the pelvis; tumors; pronounced complications in diabetes; expressed cardiovascular problems; hemophilia; open wounds etc.

The decision for therapeutic horse riding should be made by a specialist doctor, who prescribes the therapy and the method of its implementation. There are clearly defined rules to be followed in each indication, in terms of equipment or horse selection. Therapeutic riding is a complex therapeutic method that achieves results only if it is approached correctly and professionally. The results are seen in increasing muscle tone, increasing the functional capacity of the cardiovascular system, improving

balance, coordination, flexibility, speech development, social communication, motivation and intellectual processes (Blažević & Kolman, 2010).

CONCLUSION

Animal therapy, also known as animal-assisted therapy (AAT), is a form of therapy that involves interactions between humans and trained animals to promote emotional, social, and physical well-being. It has been recognized for its positive effects on children, adults, and the elderly. Animals commonly used in therapy include dogs, cats, horses, birds, rabbits, and even dolphins. These animals are chosen for their friendly nature, obedience, and ability to provide comfort and companionship. Animal therapy has shown numerous benefits, such as: Emotional Well-being: Interacting with animals can help children reduce stress, anxiety, and depression. It can boost mood, increase feelings of happiness, and provide a sense of comfort and unconditional love; Social Interaction: Animals can serve as social facilitators, encouraging children to engage in communication and interaction. This can be particularly beneficial for children with autism spectrum disorders or those who struggle with social skills; Physical Health: Animal therapy has been associated with improved cardiovascular health, reduced blood pressure, and decreased pain perception. It can also encourage physical activity through activities like walking or grooming the animals; Cognitive Stimulation: Animal-assisted activities can enhance cognitive abilities, including attention, memory, and problem-solving. They can also provide a sense of purpose and responsibility.

Animal therapy can take place in various settings, including hospitals, nursing homes, schools, rehabilitation centers, and mental health facilities. It is used to complement traditional therapies for a wide range of conditions, such as Mental health disorders (anxiety disorders, post-traumatic stress disorder (PTSD), depression, and other mental health conditions), Physical Disabilities (with assisting individuals with physical disabilities by providing support, motivation, and companionship during rehabilitation and therapy sessions), Autism Spectrum Disorders (helps children with autism improve their social skills, communication, and emotional regulation), Elderly Care (to prevent loneliness, improve mood, and provide sensory stimulation for individuals in nursing homes or assisted living facilities).

Animals used in therapy undergo specialized training to ensure they are well-behaved, calm, and responsive to human interactions. Their handlers, who may be therapists or trained volunteers, also play a crucial role in facilitating positive interactions between the animal and the children with special educational needs. It's important to note that animal therapy should always be conducted under the supervision of trained professionals who can assess the suitability and safety of the therapy for each individual. Additionally, not all individuals may benefit from or be suitable for animal therapy, so individualized assessments are essential to determine its appropriateness. Collaborating with a multidisciplinary team of professionals, including therapists, educators, and veterinarians, can ensure that the child receives comprehensive support that incorporates animal-assisted therapy into their overall treatment plan.

Animal therapy can be particularly beneficial for children with special needs, providing them with unique opportunities for growth, development, and emotional support. Animals have a calming effect and can help children regulate their emotions. Interacting with animals, such as petting or cuddling them, can reduce anxiety, stress, and aggression. The presence of a non-judgmental and accepting animal companion can provide comfort and a sense of security. Children with autism spectrum disorders, often struggle with social interactions. Animal therapy can serve as a bridge to help them develop social skills. Animals provide a safe and non-threatening context for practicing social behaviors, such as initiating interactions, taking turns, and showing empathy. The unconditional love and acceptance from animals can boost a child's self-confidence and motivation to engage with others. Thus, the animal therapy can encourage verbal and non-verbal communication, children may communicate with animals by talking to them, giving them commands, or using non-verbal cues. Animals can also provide a non-judgmental environment where children feel comfortable expressing themselves. Therapists can also use animals as a tool to facilitate speech and language development through activities like reading aloud to an animal or teaching commands. Many children with special needs have sensory sensitivities or seek sensory input. Animal therapy can provide various sensory experiences, such as touching the animal's fur, feeling their warmth, hearing their sounds, or even the rhythmic motion of horseback riding in equine therapy. These experiences can help children regulate their sensory responses, increase body awareness, and improve sensory integration.

Animal therapy can also support cognitive and motor skill development. Activities like grooming, feeding, or training animals can enhance cognitive abilities, problem-solving, sequencing, and fine motor skills. For example, brushing a horse's mane can improve hand-eye coordination and fine motor control. Animals have a natural ability to capture children's attention and motivate them to participate in therapy. The novelty and excitement of working with animals can increase a child's motivation to engage in therapy activities and achieve their goals. Animal-assisted therapy can make therapy sessions enjoyable, leading to increased participation and progress.

There are various types of Animal therapy beneficial for children with special needs. Dogs are one of the most commonly used animals in animal-assisted therapy. Specifically trained therapy dogs can provide comfort, companionship, and support to children with special needs. They can also assist in tasks such as mobility support or alerting to seizures for children with physical disabilities or medical conditions. Equine therapy, which involves interactions with horses, has shown significant benefits for children with special needs. Riding horses can improve balance, coordination, muscle strength, and posture. Additionally, working with horses can help develop trust, emotional regulation, and confidence in children.

Animal therapy has shown great potential in supporting the development, well-being, and quality of life of children with special needs. It offers a holistic approach that combines the benefits of human-animal interactions with targeted therapeutic interventions, creating a nurturing and supportive environment for children to thrive. It's important to work with professionals experienced in animal-assisted therapy and special needs to ensure the safety and effectiveness of the interventions. They can assess the child's specific needs, set goals, and design appropriate activities to maximize the benefits of animal therapy for children with special educational needs.

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