


# Chapter 17

## Animal–assisted Therapy for Children and Adolescents with Neurodevelopmental Disorders: A Review

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### **ABSTRACT**

*The increase in neurodevelopmental disorders presents the need for complementary and alternative treatment modalities to support well-being in the maximum possible way. This narrative review was conducted with the aim to explore how animal-assisted therapy as a complementary treatment approach is beneficial for children and adolescents with neurodevelopmental disorders. A search in various databases was conducted to identify articles published in the field of animal-assisted interventions. The review comprised of a total of 32 studies. The discussion of the results was presented in terms of different therapy animals incorporated into the therapeutic environment. The review indicated that animal-assisted therapy has the potential to improve symptoms and various psycho-social variables in individuals suffering from different developmental disabilities.*

### **ANIMAL-ASSISTED THERAPY FOR CHILDREN AND ADOLESCENTS WITH NEURODEVELOPMENTAL DISORDERS: A REVIEW**

Neurodevelopmental disorders (NDDs) are a cluster of disorders with the onset in the developmental period that impairs normal functioning. NDDs include intellectual disability (ID); Communication Disorders; Autism Spectrum Disorder (ASD); Attention-Deficit/Hyperactivity Disorder (ADHD); Neurodevelop-

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## ***Animal-assisted Therapy with Neurodevelopmental Disorders***

mental Motor Disorders, including Tic Disorders; and Specific Learning Disorders. These disorders are multifaceted and individuals diagnosed with them suffer greatly in society because of their symptoms, associated mental health conditions, financial burden, and stigma. According to a recent systematic review of NDDs, the prevalence rates of developmental disorders fluctuate worldwide between 4.70 and 88.50% (Frances et al., 2022). There are reports of a significantly increasing trend for most common NDDs such as ASD, ADHD, LD, and ID (Hansen et al. 2018; EPA, 2022). This rise in numbers suggests the need for effective interventions and mental health services as essential in treatment planning for the future.

Complementary and alternative medicine (CAM) has found its way in recent times with NDDs. CAM are those treatment practices that fall into the diverse range of healthcare systems but currently are not considered in conventional medicine (The National Center for Complementary and Alternative Medicine, 2010). A wide variety of CAM practices are prevalent in the world ranging from practices that are indigenous and century-old to modalities that are practiced by trained practitioners such as acupuncture, reiki, etc. (Moquin et al., 2009). There is evidence of the substantial use of CAM in almost 15 countries (Harris et al., 2012). CAM treatments are now been integrated into healthcare systems, especially in countries with high healthcare expenditures and higher GDP per capita (Fjær et al., 2020).

Animal-assisted therapy (AAT) is one alternative therapy known to benefit individuals with NDDs. Since it's a novel field, there are still queries regarding its status as to whether AAT falls into CAM or Integrative Therapy. However, the sound theoretical background that endorses the therapeutic use of human-animal interactions makes AAT conducive to implementation for healthcare settings. Animal companionship has always been known to be therapeutic to humans. Florence Nightingale, the founder of modern nursing, proposed the first recognized therapeutic benefits of human-animal interactions in the late 1800s (Connor & Miller, 2000). The father of Psychoanalysis, Sigmund Freud, while working with the clients in psychotherapy sessions found that when his dog Jofi was present in the session, the clients were more comfortable talking about painful issues. In a way, Jofi was helping to facilitate communication in a therapeutic environment. However, this observation did not come out until two decades after his death (Beck, 2010).

Boris Levinson, a child psychotherapist is credited with the formal introduction of the field of animal-assisted therapy. He found that a non-verbal child has begun to communicate in the presence of his dog named Jingles. He observed similar findings with many more children and collectively presented these findings in the paper at the American Psychological Association. He is now known as the Father of AAT but originally the term coined by him was Pet-oriented Psychotherapy (Fine, 2002). Inspired by his work, two scientists, Samuel and Elizabeth Corson started experimenting with patients in hospitals using pet animals. They observed improvements in self-esteem, sense of responsibility, and social interactions (Corson et al., 1975). Subsequently, with more research in 1980s in various fields of veterinary medicine, psychology, and social work, the use of animals gained popularity to help people relax and decrease anxiety (Grandgeorge & Hausberger, 2011).

Animal-assisted therapy utilizes the human-animal bond to improve the physical and mental well-being of people. AAT refers to the presentation of animals in the therapeutic setting for the benefit of the human being. It is different from the recreational use of animals and owning a pet. The lack of consensus on the terminology and the practice of AAT led to the development of the International Association of Human-Animal Interaction Organizations (IAHAIO) in 2013 which led a task force consisting of 90 multi-disciplinary member organizations across globe. This international organization concerned with animal-assisted interventions is a pioneering body in the field and defines AAT as a therapeutic intervention that is goal-oriented, planned, and structured and is offered by professionals in the fields of

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