

LITERATURE REVIEW

HOW DOES ANIMAL-ASSISTED THERAPY SUPPORT STUDENT WELLBEING IN EDUCATIONAL SETTINGS?



The inter-relationship between animals and humans has been studied for millennia. It is estimated that dogs have assisted in regulating emotions and behaviour for humans for possibly 32,000 years (Tedeschi & Jenkins, 2019, p. xii).

Written by: Sarah Chandra, Canine Comprehension mentor.



Both animals and humans have co-existed with the role of these relationships evolving over time. In the beginning, animals followed a parallel path with humans and were initially seen to play a role for livelihood (ie. food). Subsequently, animals were seen for their productivity and usefulness with domestication and agricultural purposes (Koukourikos, Georgopoulou, Kourkouta, & Tsaloglidou, 2019, p. 1898). Overtime, the 'companionship' and therapeutic potential of dogs was further explored. The original 'service dog' was believed to be Smoky, a small Yorkshire terrier who supported American soldiers during World War II (Tedeschi & Jenkins, 2019, p. 17). Smoky and other service dogs supported soldiers with their recovery from traumatic physical and psychological injuries. In the following decade, the phenomenon of animal assisted therapeutic interventions continued to evolve as thousands of therapy animals and handlers were trained to support and guide trauma survivors through their healing journeys (Tedeschi & Jenkins, 2019, p. 17). Anthropologists and ethnographers also sought to analyse the symbiotic relationship between humans and animals specifically considering the wellbeing for both humans and animals alike (Franklin, Emmison, Haraway, & Travers, 2007, p. 42). The role of animals in human development and treatment has evolved from simply 'companionship' towards a therapeutic relationship that promotes overall well-being for individuals, families and communities as a whole (Koukourikos, Georgopoulou, Kourkouta, & Tsaloglidou, 2019 p. 1899). As such, this literature review seeks to consider the ways that animal assisted therapy has been applied in educational settings to support students.

LITERATURE REVIEW

The paper draws from global articles highlighting various studies that consider animals' vital role in enhancing student well-being through enhanced emotional regulation, modelling good social skills, and building emotional intelligence and overall resilience. The studies find that investing in these interventions has also supported students' academic capacities with improved reading abilities, concentration on schoolwork and overall academic performance and engagement.

Firstly, this paper will consider the neurobiological impacts of human and animal interaction. Service animals have been trained to offer biofeedback functions to support individuals experiencing anxiety or hyperarousal (Tedeschi & Jenkins, 2019, p. 20). These dogs have been trained to detect heightened states of cortisol and stress, which, left untreated, could deteriorate into an anxiety attack (Tedeschi & Jenkins, 2019, p. 20). During this emotional state, the dog can prompt self-awareness in the individual by nudging or licking, which encourages the individual to focus on the dog, following guided meditation and breathing with the dog, which can support overall regulation out of a heightened state of stress (Tedeschi & Jenkins, 2019, p. 20). This method of biofeedback notification can help decrease feelings of anxiety, which has numerous positive physical, emotional and social benefits for individuals. The presence of animals is also known to provide a tangible source of pleasure as they promote the release of serotonin and endorphins (feelings of happiness and calm) and reduce the release of stress hormones such as cortisol and adrenaline, which will also decrease blood pressure and heart rates (Koukourikos, Georgopoulou, Kourkouta, & Tsaloglidou, 2019, p. 1900). As such, numerous studies have concluded that animal-assisted therapy can produce biochemical changes in a patient's brain, which improves mood, encourages relaxation and reduces feelings of anxiety (Koukourikos, Georgopoulou, Kourkouta, & Tsaloglidou, 2019, p. 1900).



LITERATURE REVIEW



Within an educational setting, this biofeedback method has also been applied to support students with their reading. Empirical evidence suggests that including dogs in schools can improve reading proficiency and confidence for students (Beetz, Hart, Jegatheesan, & Koda, 2018, p. 1). Students found that reading to the dog calmed them, producing oxytocin and creating a positive neurobiological feedback response for this educational task (Beetz, Hart, Jegatheesan, & Koda, 2018, p. 1). The studies compared students' reading proficiency and confidence in the presence of a dog, toy dog or no dog at all (Schretzmayer, Kotrschal, & Beetz, 2017, p. 1). It was clear that the interaction and response from dogs were beneficial to support students' reading (Brelsford, Meints, Gee, & Pfeffer, 2017, p. 15).

Animals, particularly dogs, have been observed to not only support self-care skills but also transform self-image. They do so by encouraging humans to become caregivers towards the animal (Koukourikos, Georgopoulou, Kourkouta, & Tsaloglidou, 2019, p. 1900). The act of caring for a dog provides the individual with an opportunity to learn responsibility, empathy, compassion, and the importance of advocacy, thereby fostering a new sense of belonging in the world (Tedeschi & Jenkins, 2019, p. 221). This transformative process is rooted in empathy, which is seen as the foundation of moral development. The highest morals are based on empathic feelings that humans experience, often vicariously with others (whether animals or humans), and encourage a response of kindness and compassion (Tedeschi & Jenkins, 2019, p. 222). This transformative role of animals counters the negative impacts of loneliness and depression, which can be a byproduct of modernization and the pursuit of individualism (Franklin, Emmison, Haraway, & Travers, 2007, p. 45). In this way, animals can serve as a social buffer, helping to repair social isolation and disharmony felt by multiple individuals (Franklin, Emmison, Haraway, & Travers, 2007, p. 48).

LITERATURE REVIEW

Research specifically highlights the positive benefits of animal-assisted therapy for autistic individuals. Dogs, in particular, provide 'social buffering' opportunities that are especially helpful for individuals who experience difficulties with sensory processing and navigating neurotypical social interactions (Koukourikos, Georgopoulou, Kourkouta, & Tsaloglidou, 2019, p. 1901). Autistic individuals have reported that the presence of a dog can be calming and a 'grounding tool' as the dog provides a focal point of concentration if the autistic individual is feeling overstimulated by the rest of the environment (Koukourikos, Georgopoulou, Kourkouta, & Tsaloglidou, 2019, p. 1901). From a sensory perspective, there is a proven benefit that petting or grooming an animal can provide an individual with powerful regulating rhythmic sensory input, which can also support emotional regulation (Tedeschi & Jenkins, 2019, p. xiii).

The interdependent psychology between humans and animals can reassure the human brain that if a dog is relaxed, then 'we are safe' (Tedeschi & Jenkins, 2019, p. xii). As a result, animal-assisted therapy has often been acknowledged for its proven benefits in supporting emotional regulation. From a neurobiology perspective, evidence indicates that animal-assisted therapy can support bio-affiliative safety because dogs prove non-threatening and can help support adaptive responses to stimuli that previously may have caused a trauma response (Tedeschi & Jenkins, 2019, p. 16). PTSD trauma responses can include flashbacks or nightmares, avoidance, avoiding certain places/triggers, memory loss and hyperarousal (Tedeschi & Jenkins, 2019, p. 19). Dogs can help repair and restore these maladaptive responses that might previously have perceived an environment to be unsafe and provide reassurance that an environment can be trustworthy and thereby encourage the participant to feel safe to engage socially and start to form positive attachments with others (Tedeschi & Jenkins, 2019, p. 16). Individuals have also reported that animal interactions can lower cortisol levels and reduce their hyper-arousal state (Tedeschi & Jenkins, 2019, p. 16).

Further studies have also noted that spending time with animals can lower heart rates (Franklin, Emmison, Haraway, & Travers, 2007, p. 43). These biological factors help support a student's ability to engage in classwork and their sense of connectedness to the school community. As such, animal-assisted therapy could be seen as a viable tool to support a student's readiness for learning.



REFERENCES

- Beetz, A., Hart, L., Jegatheesan, B., & Koda, N. (2018). Editorial: Children and Companion Animals: Psychosocial, Medical and Neurobiological Implications. *Frontiers in Veterinary Science*, 1-2.
- Brelsford, V., Meints, K., Gee, N., & Pfeffer, K. (2017). Animal-Assisted Interventions in the Classroom- A systematic Review. *International Journey of Environment Research and Public Health*, 14, 1-33.
- Franklin, A., Emmison, M., Haraway, D., & Travers, M. (2007). Investigating the therapeutic benefits of companion animals: Problems and challenges. *Qualitative Sociology Review*, 11(1), 42-58. Retrieved June 9, 2024
- Koukourikos, K., Georgopoulou, A., Kourkouta, L., & Tsaloglidou, A. (2019). Benefits of Animal Assisted Therapy in Mental Health. *International Journal of Caring Sciences*, 12(3), 1898- 1905. Retrieved June 9, 2024
- Schretzmayer, L., Kotrschal, K., & Beetz, A. (2017). Minor Immediate Effects of a Dog on Children's Reading Performance and Physiology. *Frontiers in Veterinary Science*, 4(90), 1-11.
- Tedeschi, P., & Jenkins, M. (2019). *Transforming Trauma: Resilience and healing through our connections with animals*. West Lafayette, Indiana: Purdue University Press.



LITERATURE REVIEW

Written by: Sarah Chandra, Canine Comprehension mentor

About Canine Comprehension.

We provide a calmer school environment through our tailored Dog Assisted Learning programs. We know that being able to provide a positive environment that is calm increases positive behaviours throughout the classroom, school and family environments.

With early intervention, we can help your child to process the emotions they are currently feeling and help them to understand them in a safe environment. Our highly trained tutors and dogs offer a connection that some children are craving and can help to create surroundings that are conducive to learning.

Our programs and individualised tutoring are goal oriented, evidenced based and innovative. We aim to create an environment that offers conducive learning experiences to a broad range of students whether in the classroom or at home.

See our website and social media pages to learn more about us.

