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# PET THERAPY: THEAPPROACH TO SUPPORT MENTAL HEALTH OF PEOPLE IN THEIR LIFE-LONG DURING COVID-19 PERIOD

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#### Abstract

It is widely known that human beings share life with other living things other than their generation. It can be seen that to survive, human beings take advantage of other living things such as plants and animals. For centuries, human beings have not only benefited from animals for food but also met their social and psychological needs. The interaction of humans and animals has led that animals are considered from different angles. After the 18th century, studies about the physiological, social, and psychological effects of animals on human beings were conducted. According to some research findings, animals have healing effects on humans physiologically, socially, and psychologically. People have faced different problems of different ages and have tried to find various solutions to these problems. Nowadays, the whole world and Turkey face a pandemic called COVID-19. As a natural disaster, this pandemic deeply affects life in terms of societal, cultural, social, psychological, and especially economic. Studies about precautions and interventions towards traumatic experiences should be conducted. Unless these studies are conducted, it may cause Post-Traumatic Stress Disorders. Post-traumatic stress disorders emerge as an expensive condition that requires psychological treatment and is costly to people and the country. Nowadays, alternative therapy approaches are benefited from recovering mental problems. It can be seen that pet therapy has been used in the field of mental health in recent years. It is considered that pet therapy can be used as an alternative therapy method during and also after the COVID-19 process, considering the benefits such as reduction of the symptoms of sleep problems, depression, anxiety, psychosomatic and Post Traumatic Stress Disorders. In this study, pet therapy is investigated as an approach to support mental health during the COVID-19 process and it is aimed to present pet therapy as an alternative therapy method to reduce the effects of COVID-19. For this purpose, a review article is conducted by examining related

studies. In line with the literature information obtained, the approach to animals and the historical development of pet therapy have been tried to be discussed. Thereafter, pet therapy research findings are included according to developmental periods such as old age, adulthood, childhood, and adolescence. After the information about COVID-19, explanations and suggestions about pet therapy are given.

Keywords: Covid-19, Mental Health, Approach, Pet Therapy, Life-long

#### Introduction

Having looked at the world, it is seen that humans do not live alone on this planet, there are other living things, and human beings share life not only with humans but also with other living things such as animals and plants. It is known that while maintaining their lives, human beings benefit not only from their kind, but also from animals, and they domesticate some of them. It can be seen that animals have a different role, in human life and accompany people in many ways like friendship, assistance, guarding, feeding, treatment and therapy.

In this study, pet therapy is tried to be investigated as an approach to support mental health during the COVID-19 process, and pet therapy is tried to be revealed as an alternative therapy method to reduce the effects of COVID-19. In line with the literature information obtained, the approach towards animals in the historical process and the historical development of pet therapy are tried to be discussed. Thereafter, pet therapy research findings are included according to developmental periods such as old age, adulthood, childhood and adolescence. After the information about COVID-19, explanations and suggestions about pet therapy are given. In the study, the document review method, one of the qualitative research methods was used.

## The History of Animals and Pet Therapy Approach

In the historical process, it can be seen that there are different approaches towards human beings during their interaction with animals. In ancient times, the underlying cause of getting injured, having an illness, or any problem was regarded as disturbing the spirits of animals and it was expected spirits of animals to help them to get better and to solve these problems. In the mythologies of polytheistic religions and the writings they consider as sacred, animals were respected like God (Singer, 2005; Serpell, 2010) and

in the Middle Ages, people with such animistic thoughts were labeled as witches or infidels by the Church (Sussman, 1985). With the emergence of monotheistic religions, animals lost their significance and took their place in life as living creatures for benefitting people and under their control (Singer, 2005; Serpell, 2010). In the Age of Enlightenment, pets have started to be used as an effective treatment method for children and individuals with psychological problems. (Sussman, 1985). Based on this information, it can be said that animals were respected in ancient times; in the Middle Ages, negative remarks towards animals emerged, and with the Age of Enlightenment, animals that regained value played a role in healing people's mental and physiological health.

Nowadays, a significant amount of information related to the healing power of animals on human bodies has begun to take place in scientific studies. It is seen that one of the scientific areas in which curative effects are seen is mental health. Animals have started to be used as a therapeutic technique in mental health services. This approach is named Animal Assisted Therapy, Pet Therapy (Demirağ ve Hintistan, 2019; Levinson, 1972) in the literature. Animal Assisted Therapy is defined as an adjuvant therapy that arouses physiological and psychological mechanisms and initiates changes that affect health positively in metabolism by taking advantage of human and animal interaction (Cevizci, Erginöz, & Baltas, 2009). According to another definition, pet or animal-assisted therapy is a scientifically proven non-pharmacological treatment method that is practiced by specially trained professionals, paraprofessionals, or volunteers who are using animals that meet the criteria. It is used for making the treatment easier for individuals with chronic diseases requiring lifelong treatment, providing rehabilitation, increasing the life quality of sick and healthy individuals, giving opportunities for motivational and therapeutic benefits by making individuals' training enjoyable (Jofré 2005; Laun 2003; as cited in Demirağ & Hintistan, 2019). Animal-assisted therapy aims to provide longterm group or individual therapy to individuals, along with exposure therapy, cognitive behavioral therapy, empowerment therapy, and other psychotherapies. Animal Assisted Therapy is an intervention that aims to reduce isolation, brighten moods and emotions, address grief and loss, and improve self-esteem and socialization while reducing general anxiety (Hamama et al., 2011).

Considering the historical process of studies of pet therapy, it can be seen that the first studies started to emerge of scientific medicine. In the eighteenth century, rabbits,

chickens, and other farm animals have been used to boost the well-being of individuals who had emotional problems in England (Beck & Katcher, 1996). Accordingly, towards the end of the eighteenth century, by using domesticated animals within the context of therapy, animal-assisted interventions were implemented for people with disabilities in mental hospitals (Serpell, 2006). Within this scope, the supportive influence of animals was used for patients treated at York Retreat Hospital established in 1792, England. A rehabilitation center for epilepsy patients was established and was benefitted from the therapeutic effect of animals in 1867, Germany. In 1901, people with orthopedic disorders were supported to ride horses in England and were provided support both physically and socially. In 1942, a therapy program with pets was implemented for the first time at Pawling Army Air Force Convalescent Hospital in the USA. At the same time, it has been explained that small pets were used for their consolation and relaxing effects on individuals with chronic diseases (Macaulay, 2006; Morrison, 2007).

Boris Levinson is considered the founder of "Animal-assisted therapy/pet therapy" and his studies provide significant pieces of information to the literature about this subject. In his book "Pets and Human Development", Levinson mentioned that the reason for challenging life experiences that people are exposed to is the inability of individuals to face their inner self and to accord their culture with nature. According to him, the individual experiences self-alienation because she/he refuses to face the past with the true self. The solution to this alienation requires establishing positive relationships with dogs, cats, and other pets and establishing a bond that is a healer. Moreover, he stated that people need animals to strengthen their inner self and in this sense, it is stated that animals are an inseparable part of human psychology (Levinson, 1972).

When the studies about pet therapy are analyzed, it can be seen that there are studies on every group of age. In this study, age groups are considered in terms of elders, adults, children, and adolescents and they are included in the following studies.

#### **Results of the Research Conducted with Elderly Individuals**

It has been observed that pet therapy/animal-assisted therapy has positive impacts on walking, mobility, and cognitive dimension in the elderly (Nordgren & Engström, 2012). It is found out that animal-assisted therapies increase social functioning in the elderly and that it has a moderate effect on depression, anxiety, and behavioral disorders

(Virués-Ortega et al., 2012). According to another study conducted with elderly individuals, the animal-assisted intervention has a positive impact on the elderly in terms of physiological, psychosocial, cognitive, and behavioral (Chang et al., 2020). In another study conducted with elderly individuals staying in nursing homes, it was concluded that the dog-assisted therapy program increased the quality of life of the elders (Briones et al., 2021). In the study of Demirağ and Hintistan (2019), lots of pets were used for pet therapy such as cats, dogs, birds, and fish and it was concluded that they have positive effects on the health of elderly individuals. However, it is emphasized that the positive or negative effects on schizophrenia-related diseases are not yet known, and it has been found out that the therapy model is beneficial for the cardiovascular systems of elderly individuals by lowering blood pressure and reducing the risk of developing complications.

#### **Results of the Research Conducted with Adults**

In an experimental study examining and comparing the effectiveness of Cognitive Behavioral Therapy and animal-assisted intervention in adults, decrease in stress and psychosomatic disorders in both groups were seen; however, it was found that participants in the groups receiving animal support showed an effective and permanent reduction in these disorders (González-Ramírez et al., 2013). Koukorikos et al. (2019) put forward an idea that animal support therapy in adults reduces mental problems, provides individuals with various skills and is effective in increasing the quality of life, and stated that animals with soft structures such as dogs, horses, dolphins and birds should be used in therapy. Nepps et al. (2014) inferred that the animal-assisted therapy program showed significant reductions in depression, anxiety, pain and heart rate levels in adult patients compared to those in the group participating in the classical stress management program. Jasperson (2010) noted that the animal-assisted program had a promising and optimistic effect when she piloted sentenced female prisoners with a pilot program of eight animal-assisted sessions. She also observed that the sentenced women felt connected to the animals used in the program and participated in group discussions and activities more actively. Wesley et al. (2009) found that thanks to animal-assisted therapy, adults develop positive attitudes in terms of the therapeutic process, resistance, and relationship between the client and the counselor. According to Mims & Waddell

(2016), animal-assisted therapy resulted in an 82% reduction in PTSD symptoms of traumatized adults, and their level of anxiety and usage of sleeping pills were reduced by half. In a study, it was concluded that individuals having pets had lower depression levels, but their level of anxiety did not differ (San, 2020). According to the research findings of Nimer and Lundahl (2007), the animal-assisted intervention has a moderate effect on autism spectrum disorder, medical difficulties, behavioral problems, and wellbeing. Thanks to animal-assisted interventions, it has been found that depressive symptoms of traumatized individuals are decreased and these interventions helped them to manage the crises. Also, studies have shown that the intervention program made a more lasting impact on these individuals (Hunt & Chizkov, 2014). According to the research conducted by Cevizci, Ergünöz & Baltas (2009), it was found that animal-assisted psychotherapy has positive results in maintaining the well-being of individuals that have chronic diseases or mental problems in terms of physical, social, and spiritual. Animalassisted psychotherapy has been found to increase the quality of life of individuals with chronic illnesses or mental disorders. It is also stated that this therapy model is widely used as a solution for many mental problems such as pervasive developmental disorders, cancer, Alzheimer's disease, dementia, loneliness, anxiety, and depression (Cakıcı and Kök, 2020). It is found that animal-assisted therapies help people that are physically and mentally disabled in their perception, speech, and communication (Köseman & Seker, 2015). In the study of Öztürk (2020), it was concluded that having a pet has a positive effect on communicating and interacting with other people and that these people have a high level of forgiveness. It was found that pets, which people see them as an object to reflect their love, help reduce the feeling of loneliness and also pets have a positive effect on emotional stability. In the study, it was also found that animal-assisted therapy boosts the well-being of individuals (Suna, 2019). According to the study conducted by Yalçıntürk, Dikeç & Ata (2019), animal-assisted therapy develops social skills of individuals and their interactions with the environment and also it reduces stress and decreases depressive symptoms. Moreover, it has been found that animalassisted therapy is effective in emotion regulation and self-control.

#### **Results of the Research Conducted with Children and Adolescents**

In a study conducted with abused children, it was observed that the presence of animals provided a calming and less threatening environment for abused children to cope with traumatic events, changing the self-perception of children, improving skills of empathy, and reflecting better adult-child interactions (Parish-Plass, 2008). In a study on the importance of animal-assisted intervention, it is stated that the use of this method in addition to other intervention methods has a supportive role (Marino, 2012). Four alternative options were presented to parents by Rabbitt et al. (2014) regarding the elimination of children's behavioral disorders. As a result of the research, it was seen that the parents ranked psychotherapy, animal-assisted therapy, waiting without any intervention, and finally medication as effective treatment methods. It was stated that parents prefer animal-assisted therapy after psychotherapy in eliminating their children's behavioral disorders (Rabbitt et al., 2014). In a study conducted by Bachi and Parish-Plass (2017), it was concluded that animal-assisted therapy is highly effective on children and adolescents experiencing depression and anxiety. In a study conducted by Akkuş et al. (2018), it was stated that animal-assisted practices provide sensory and physical development in individuals with an autism spectrum disorder. In an experimental study conducted by Folse et al. (1994), it was determined that animal-assisted psychotherapy was effective on depression in university students in cases of depression. Nevertheless, it was stated that animal-assisted therapy, which is applied very limitedly in Turkey, has positive effects on children's psychological, emotional, social, and physical health (Muslu & Conk, 2011).

#### **Covid-19 Period**

Since the end of 2019, there has been a pandemic called COVID-19 all over the world. This epidemic disease is included in natural disasters (Bach, Gupta, Nair & Birkmann, 2013) and people experience traumatic experiences due to the COVID-19. Mankind has been caught unprepared for this epidemic as in other epidemics. It is seen that people of all ages react differently to this epidemic due to the experienced trauma (Sargin & Kutluca, 2020). Traumatic experiences emerge as a situation that must be dealt with to protect mental health. If the effects of trauma are not tried to be fixed and effective psychological help is not provided, it can cause severe mental disorders in people. The effects of this pandemic come to light in the economic, social and societal areas of life.

There are also economic crises and obstacles in social and societal life. In this situation, people who must stay at home, not be able to go out, be under quarantine and continue their daily routines due to the rapid spread of the epidemic around the world are in a state of surprise and shock (Kirman, 2020). Individual and group online therapies (Weinberg, 2020), acceptance and commitment therapy (Crasta, Daks & Rogge, 2020), cognitive-behavioral therapy, interpersonal psychotherapy (Swartz, 2020) and similar psychological intervention methods are being tried by experts to reduce psychological effects of this epidemic, which deeply affects the world, changes the way of life of people and remains uncertain. In addition to all these methods, researchers think that pet therapy/animal-assisted therapy will be an alternative solution. It is stated in the above research results that this therapy method has positive effects on symptoms such as insomnia, anxiety, and depression, which are the results of trauma. It is also stated that pet therapy improves the locomotor system by regulating blood pressure (Keser and Demiralay, 2019), increase the quality of life (Koukourikos et al., 2019), and improves communication and empathy skills (Parish-Plass, 2008). In addition, it is seen that this therapy reduces the feelings of loneliness (Cryer, Henderson-Wilson & Lawson, 2021), depression, anxiety, and stress symptoms (Feng, Lin, Zhang, Jiang & Zhang, 2021), and psychiatric drug use in individuals under social isolation (Jung, Jung, Jongyotha, De, Brennan & Naumovski, 2021).

In this difficult and uncertain period, pet therapy is recommended in addition to many therapies to reduce the effects of COVID 19 traumatic days due to the benefits stated in various research results in order to help people spiritually.

#### Points to Consider in Pet Therapy

Training in the pet therapy method is considered a necessity. In this therapy method, unlike other therapy methods, it is necessary to take responsibility for a pet and ensure the safety of the pet and the clients. Hines and Fredrickson (1998) strongly argue that experts who will perform animal-assisted practices should receive training on therapy techniques to be used in this sense. Having said that, practitioners must also follow the most effective safety measures. In addition, if adequate training is not received on how to implement animal-assisted therapy, pets are involved inappropriately in this process, which can have some ethical and negative consequences (Hines & Fredrickson, 1998).

Apart from these, it is considered very useful for those who use this therapy method to follow the literature related to the field and to have comprehensive knowledge of the literature. When selecting pets for therapy, professionals should make sensible choices that they believe will best serve the purpose. In this sense, assuming that not every pet will be suitable for therapy, examinations should be made to determine the pet that will be most suitable for the need. Necessary precautions should be taken for various diseases that may be contagious, especially in human-animal interaction (Wishon, 1989), and pet animal care should be done carefully. For this reason, support should be sought from veterinarians and health professionals to ensure the safety of pets and clients (Hines & Fredrickson, 1998). Brodie, Biley, and Shewring (2002) recommend the preparation of an informed consent form for everyone involved in the process for careful selection of therapy pets, rigorous health care, client health and allergy status in animal-assisted practices.

Animal-assisted therapy can be performed individually or in groups, depending on the characteristics and needs of the individuals and the skills of the practitioner. Accordingly, cats, dogs, dolphins, birds and other mild-tempered animals can be used passively or actively. In this context, play and life activities are considered important in terms of individuals using all their senses through exercise or animation activities. In group practices, pets can interact with one or more individuals who need socialization. In this sense, pets, which are seen as focal sources, encourage socialization among participants and in the participant-practitioner relationship (Barba, 1995). Group sessions will be useful as a first step to reduce stress and make more comprehensive programs. Numerous studies have been conducted on the psychological and physiological benefits of pets for many years. Human-animal interaction studies prove that animal-assisted interventions reduce blood pressure, reduce drug use, and provide psychological benefits in anxiety and stress disorders (Kruger & Serpell, 2010; Sussman, 1985). Additionally, it is stated that the human-animal bond reduces depression and loneliness, as well as increases self-confidence, self-esteem, empathy, psychological well-being, and sense of purpose (O'Haire, 2012). The psychological and physiological effects of animal-assisted interventions spring from an animal's unconditional love, constant presence, and nonjudgmental nature that includes trust, warmth, and acceptance.

Some characteristics of the pets to be used for therapy are stated as follows (Fine, 2015);

- Pets that are calm, docile and enjoy being with people,
- Being prepared in advance for situations, as pets will be exposed to unusual sights, sounds, and smells during the therapy process,
- The therapy pets to be obedient and obey the given instructions, in other words, are trained,
- Ability to control itself after games or exciting situations,
- Being able to sit quietly for a long time,
- Ability to navigate in crowded environments,

There are some points practitioners should also consider (Fine, 2015);

These are:

- Distracting therapy pets from stressful situations,
- Giving pets regular breaks, taking walks and playing games,
- Always have clean water and favorite toys for therapy pets,
- Having a care session for pets every day,
- Having a favorite bed or similar area in the therapy environment for the pet,

Fine (2005) suggests that there are several basic principles to be considered in animalassisted therapy practices;

1. The practitioner should take into account the contribution that pets can make to therapy.

2. The practitioner needs to conceptualize as much as possible the contributions and opportunities that therapy pets will provide. In this sense, a plan should be prepared in advance.

3. The practitioner should be able to anticipate how the counseling theory they use will change in a process involving pets. Furthermore, consideration should be given to the

client's wishes and the appropriateness of the use of pets, consistency with the counselor's response plan, and capacity to achieve the goals established.

#### Conclusion

All in all, pet therapy practice can be applied to both healthy and sick individuals regardless of their developmental stage of the individuals, furthermore, there is much information about that animal-assisted therapy is a physically and psychologically supportive method and the time spent with pets increases the exercise rate, regulates blood pressure, reduces the level of addiction, and provides effective communication skills and provides psychological benefits in anxiety and stress disorders (Keser & Demiralay, 2019; Kruger & Serpell, 2010).

However, there are findings that animal-assisted therapy is beneficial and effective in the studies reviewed in the study, however, it seems that this approach has a constant struggle to define itself and gain credibility. For this reason, while the effort to establish a standard terminology and practice continues, a consensus has not been established yet. Moreover, there is a consensus on the need to establish a specific plan and target for animal-assisted therapy (Serpell, 2010). Animal-assisted interventions are influenced by many different perspectives and disciplines such as genetics, biology, developmental psychology, and behaviorism. In this sense, many approaches accept that pets gain unique qualities that facilitate therapy, and that the relationship with the pet brings positive cognitive and behavioral changes.

It is recommended to apply pet therapy, which has shown positive effects for all age groups in difficult times such as COVID-19 and the rehabilitation of traumatic experiences caused by it. However, it can be seen that pet therapy is not a subject that has been studied much in Turkey, no experts are working in the field of mental healthrelated to this field, and there is not enough literature study. It is recommended to disseminate pet therapy research and pet therapy practice in Turkey.

## **References:**

- Akkuş, A., Köse, E., Erdoğan, M., Taşpınar, B., & Taşpınar, F. (2018). Otizm sprektrum bozukluğunda evcil hayvan desteği. *İzmir Demokracy University Health Sciences Journal*, 34–42.
- Bachi, K., & Parish-Plass, N. (2017). Animal-assisted psychotherapy: A unique relational therapy for children and adolescents. *Clinical Child Psychology and Psychiatry*, 22(1), 3–8. <u>https://doi.org/10.1177/1359104516672549</u>
- Barba, B. E. (1995). The positive influence of animals: Animal assisted therapy in acute care. *Clinical Nurse Specialist*, 9(4), 91-95.
- Beck, A., & Katcher, A. (1996). *Between pets and people*. West Lafayette, IN: Purdue University Press.
- Bekaroğlu, E. ve Yılmaz, T. (2020). COVID-19 ve psikolojik etkileri: Klinik psikoloji perspektifinden bir derleme. *Nesne*, 8(18), 573-584. DOI: 10.7816/nesne-08-18-14
- Bendau, A., Petzold, M. B., Pyrkosch, L., Maricic, L. M., Betzler, F., Rogoll, J., ... & Plag, J. (2021). Associations between COVID-19 related media consumption and symptoms of anxiety, depression and COVID-19 related fear in the general population in Germany. *European Archives of Psychiatry and Clinical Neuroscience*, 271(2), 283-291.
- Bozkurt, Y., Zeybek, Z., & Aşkın, R. (2020). Covid-19 pandemisi: Psikolojik etkileri ve terapötik müdahaleler. *İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi*, 19(37), 304-318.
- Briones, M. A., Pardo-García, I., & Escribano-Sotos, F. (2021). Effectiveness of a dogassisted therapy program to enhance the quality of life in institutionalized dementia patients. *Clinical Nursing Research*, 30(1), 89–97. <u>https://doi.org/10.1177/1054773819867250</u>

- Brodie, S. J., Biley, F. C., & Shewring, M. (2002). An exploration of the potential risks associated with using pet therapy in healthcare settings. *Journal of Clinical Nursing*, 11(4), 444-456.
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 112934, <u>https://doi.org/10.1016/j.psychres.2020.112934</u>
- Cevizci, S., Erginöz, E., & Baltaş, Z. (2009). Ruh sağlığının iyileştirilmesinde destek bir tedavi yaklaşımı : Hayvan destekli tedavi. *Nobel Med*, *5*(1), 4-9.
- Chang, S. J., Lee, J., An, H., Hong, W. H., & Lee, J. Y. (2020). Animal-assisted therapy as an intervention for older adults: A systematic review and meta-analysis to guide evidence-based practice. *Worldviews on Evidence-Based Nursing*, 18(1), 60-67 <u>https://doi.org/10.1111/wvn.12484</u>
- Crasta, D., Daks, J. S., & Rogge, R. D. (2020). Modeling suicide risk among parents during the COVID-19 pandemic: Psychological inflexibility exacerbates the impact of COVID-19 stressors on interpersonal risk factors for suicide. *Journal* of Contextual Behavioral Science, 18, 117-127. <u>https://doi.org/10.1016/j.jcbs.2020.09.003</u>
- Çakıcı, A., & Kök, M. (2020). Hayvan destekli tedavi. *Psikiyatride Güncel Yaklaşımlar* - *Current Approaches in Psychiatry*, *12*(1), 117–130. https://doi.org/10.18863/pgy.526378
- Cryer, S., Henderson-Wilson, C., & Lawson, J. (2021). Pawsitive connections: The role of pet support programs and pets on the elderly. *Complementary Therapies in Clinical Practice*, 42, 101298. <u>https://doi.org/10.1016/j.ctcp.2020.101298</u>
- Demirağ, H., & Hintistan, S. (2019). Yaşlı sağlığında pet terapi (hayvan destekli tedavi) uygulamalarının literatür eşliğinde incelenmesi. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi*, 22(3), 217–224.
- Feng, Y., Lin, Y., Zhang, N., Jiang, X., & Zhang, L. (2021). Effects of animal-assisted therapy on hospitalized children and teenagers: A systematic review and metaanalysis. *Journal of Pediatric Nursing*, 60, 11-23. https://doi.org/10.1016/j.pedn.2021.01.020
- Folse, E. B., Minder, C. C., Aycock, M. J., & Santana, R. T. (1994). Animal-assisted therapy and depression in adult college students. *Anthrozoös*, 7(3), 188–194. <u>https://doi.org/10.2752/089279394787001880</u>
- Fine, A. H. (2005). Incorporating animal-assisted therapy into psychotherapy: Guidelines and suggestions for therapists. In *Handbook on animal-assisted therapy* (pp. 169-191). Academic Press.
- Fine, A. H. (2015). *Incorporating animal-assisted interventions into psychotherapy*. Handbook on Animal-Assisted Therapy, *141–155*. doi:10.1016/b978-0-12-801292-5.00011-0
- González-Ramírez, M. T., Ortiz-Jiménez, X. A., & Landero-Hernández, R. (2013). Cognitive-behavioral therapy and animal-assisted therapy: Stress management

for adults. *Alternative and Complementary Therapies*, 19(5), 270–275. https://doi.org/10.1089/act.2013.19505

- Hamama, L., Hamama-Raz, Dagan, K., Greenfeld, H., Rubinstein, C., & Ben-Ezra, M. (2011). A preliminary study of group intervention along with basic canine training among traumatized teenagers: A 3-month longitudinal study. *Children and Youth Services Review*, 33, 1975–1980. doi:10.1016/j.childyouth.2011.05.021
- Hines, L., & Fredrickson, M. (1998). Perspectives in animal-assisted therapy and activities. In C. Wilson, & D. Turner (Eds.), Companion animals in human health (23–40). Thousand Oaks, CA: Sage.
- Hunt, M. G., & Chizkov, R. R. (2014). Are therapy dogs like Xanax? Does animalassisted therapy impact processes relevant to cognitive-behavioral psychotherapy? *Anthrozoos*, 27(3), 457–469. https://doi.org/10.2752/175303714X14023922797959
- Jasperson, R. A. (2010). Animal-assisted therapy with female inmates with mental illness: A case example from a pilot program. *Journal of Offender Rehabilitation*, 49(6), 417–433. <u>https://doi.org/10.1080/10509674.2010.499056</u>
- Jung, C., Jung, C., Jongyotha, K., De, I., Brennan, M., & Naumovski, J. (2021). Using a virtual pet to replace pet therapy visits in our nursing facility during the COVID-19 pandemic. *Journal of the American Medical Directors Association*, 22(3), B18.
- Keser, İ., & Demiralay, Ş. (2019). Ruh sağlığını koruma ve iyileştirmede hayvan destekli uygulamaların kullanımı. *Mediterranean Journal of Humanities*, 9(2), 219-224. <u>https://doi.org/10.13114/mjh.2019.486</u>
- Kirman, F. (2020). Sosyal medyada salgın psikolojisi: algı, etki ve başa çıkma. Dünya İnsan Bilimleri Dergisi, 2020(2), 11-44.
- 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.
- Köseman, A., & Şeker, İ. (2015). Hippoterapi ve terapide kullanılan atların özellikleri. *Erciyes Üniversitesi Veteriner Fakültesi Dergisi*, 12(3), 195–201.
- Kruger, K., & Serpell, J. (2010). Animal-assisted interventions in mental health: Definitions and theoretical foundations. In A. H. Fine (Ed.), Handbook of animal-assisted therapy: Theoretical foundations and guidelines for practice (3rd ed., pp. 33–48). Boston, MA: Elsevier.
- Levinson, B. (1972). Pets and human development. Springfield, IL: Charles C. Thomas.
- Macauley BL (2006) Animal-assisted therapy for persons with aphasia: A pilot study. *Journal of Rehabilitation Research and Development*, 43(3),357-365.
- Marino, L. (2012). Construct validity of animal-assisted therapy and activities: How important is the animal in aat? *Anthrozoös*, 25(sup1),139-151. https://doi.org/10.2752/175303712x133534303772194

- Mims, D., & Waddell, R. (2016). Animal-assisted therapy and trauma survivors. *Journal of Evidence-Informed Social Work*, 13(5), 452–457. https://doi.org/10.1080/23761407.2016.1166841
- Morrison ML .(2007). Health benefits of animal-assisted interventions. *Complement Health Pract Rev, 12*(1), 51-62.
- Muslu, G. K., & Conk, Z. (2011). Hayvan destekli uygulamalar ve çocuklarda kullanımı. *Dokuz Eylül Üniversitesi Hemşirelik Yüksekokulu Elektronik Dergisi*, 4(2), 93–88.
- Nepps, P., Stewart, C. N., & Bruckno, S. R. (2014). Animal-assisted activity: Effects of a complementary intervention program on psychological and physiological variables. *Journal of Evidence-Based Complementary and Alternative Medicine*, 19(3), 211-215. <u>https://doi.org/10.1177/2156587214533570</u>
- Nimer, J., & Lundahl, B. (2007). Animal-assisted therapy: A meta-analysis. *Anthrozoos*, 20(3), 225-238. https://doi.org/10.2752/089279307X224773
- Nordgren, L., & Engström, G. (2012). Effects of animal-assisted therapy on behavioral and/or psychological symptoms in dementia: A case report. American Journal of Alzheimer's Disease and other Dementias, 27(8), 625–632. https://doi.org/10.1177/1533317512464117
- O'Haire, M. (2012). Animal-assisted intervention for autism spectrum disorder: A systematic literature review. *Journal of Autism Development Disorder*, 43, 1606-1622. doi:10.1007/s10803-012-1707-5
- Öztürk, P. (2020). Evcil hayvan sahiplerinin affedicilik düzeyi ve genel sağlık durumlarının değerlendirilmesi. (Yayınlanmamış Yüksek Lisans Tezi). Zonguldak Bülent Ecevit Üniversitesi. Sağlık Bilimleri Enstitüsü, Zonguldak.
- Parish-Plass, N. (2008). Animal-assisted therapy with children suffering from insecure attachment due to abuse and neglect: A method to lower the risk of intergenerational transmission of abuse? *Clinical Child Psychology and Psychiatry*, 13(1), 7-30. doi: 10.1177/1359104507086338
- Rabbitt, S. M., Kazdin, A. E., & Hong, J. (2014). Acceptability of animal-assisted therapy: Attitudes toward AAT, psychotherapy, and medication for the treatment of child disruptive behavioral problems. *Anthrozoos*, 27(3), 335–350. <u>https://doi.org/10.2752/175303714X13903827487881</u>
- Sargın, N. & Kutluca, V. (2020). Covid-19 Salgını sürecinde yetişkinlerin tepkileri. Bilge Uluslararası Sosyal Araştırmalar Dergisi, 4 (2): 64-70. https://doi.org/10.47257/busad.838408
- Suna, A. H. (2019). Türkiye'de yaşayan evcil hayvan sahiplerinin bütüncül psikoterapi perspektifinden analizi. *Türkiye Bütüncül Psikoterapi Dergisi*, 2(3), 131-153. https://dergipark.org.tr/tr/pub/bpd/issue/42091/506451
- Serpell, J. (2006). Animal assisted interventions in historical perspective. In A. H. Fine (Ed.), Handbook on animal assisted therapy: Theoretical foundations and guidelines for practice (pp. 3–20). San Diego, CA: Academic Press.

- Serpell, J. A. (2010). Animal-assisted interventions in historical perspective. In H. F. Aubrey (Ed.), *Handbook on animal-assisted therapy* (2. edition, 17-32). Academic Press. https://doi.org/10.1016/B978-0-12-381453-1.10002-9
- Sussman, M.A. (1985). Pets and the family. New York, NY: Haworth Press.
- Swartz, HA (2020). The role of psychotherapy during the Covid-19 pandemic. *American Journal of Psychotherapy*, 73(2), 41-42. <u>https://doi.org/10.1176/appi.psychoterapy.20200015</u>
- Şan, A. (2020). Evcil hayvan sahiplerinde depresyon ve anksiyete düzeylerinin incelenmesi. (Yayınlanmamış Yüksek Lisans Tezi). Uludağ Üniversitesi. Sağlık Bilimleri Enstitüsü, Bursa.
- Virués-Ortega, J., Pastor-Barriuso, R., Castellote, J. M., Población, A., & de Pedro-Cuesta, J. (2012). Effect of animal-assisted therapy on the psychological and functional status of elderly populations and patients with psychiatric disorders: A meta-analysis. *Health Psychology Review*, 6(2), 197-221. https://doi.org/10.1080/17437199.2010.534965
- Weinberg, H. (2020). Online group psychotherapy: Challenges and possibilities during COVID-19 -A practice review. Group Dynamics: Theory, Research, and Practice, 24(3), 201.<u>https://doi.org/10.1037/gdn0000140</u>
- Wesley, M. C., Minatrea, N. B., & Watson, J. C. (2009). Animal-assisted therapy in the treatment of substance dependence. *Anthrozoos*, 22(2), 137-148. <u>https://doi.org/10.2752/175303709X434167</u>
- Wishon, P. M. (1989). Disease and injury from companion animals. *Early Child Development and Care*, 46(1), 31-38.
- Yalçıntürk, A. A., Dikeç, G., & Ata, E. E. (2019). Alkol ve madde kullanım bozukluğu olan bireylere yönelik rehabilitasyon çalışmaları: Sistematik derleme. *Bağımlılık Dergisi*, 20(4), 241-252.