

# Usefulness Of Dog-Assisted Therapy (Dat) In Depressive Disorders - A Case Series From Tamil Nadu

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## ABSTRACT

It has been known since the olden days that Animals, particularly dogs, were found to have positive effects on humans. They bring about a sense of calmness and increases the well being in them. There are a limited number of studies in India that have been conducted with regard to Dog Assisted Therapy (DAT) in those diagnosed with Depressive Disorders. Hence, this case series aims to show the clinical effectiveness of Canine Therapy in reducing depressive features as an Adjuvant Therapy to the primary management of clients with clinical depression. DAT has a biological aspect to it and unless given by a certified therapist can have negative consequences for clients. In this case series, clients were assessed and evaluated in detail. Once diagnosed with a Depressive Disorder, consent was obtained and the Protocol for DAT was followed and they were assessed for improvement in their symptoms. Dog Assisted Therapy shows promising results indicating that it can be used as an add-on Therapy. However, more evidence based studies are required.

**Keywords:** animal-assisted therapy, dogs, depression, adjuvant treatments

## INTRODUCTON:

Animal Assisted Therapy is defined as a goal directed interaction between the trained animal and the patient, which is considered as an adjuvant to mainstream therapies.

From ancient times, human existence is closely related to the presence of animals. The animals followed a parallel course with human either initially as livelihood (food) or later domestication of some of them as a means of livelihood (eg: plowing fields) and later as domestic animals for purely personal pleasure and well-being. <sup>1</sup>

It has been known that animals are able to offer some kind of relief and relaxation in individuals who are under severe stress. The role of animals being used in therapy began as early as the 20th century. There has been an increasing interest of the positive and reinforcing effects in the interaction of animals with humans as well as it's consequences on the mental health of these

individuals. <sup>2</sup> This has led to the consolidation of an alternative form of treatment for various types of mental illness, known as "Animal-Assisted Therapy".

Studies have been done that were limited to people who like animals. Animal-Assisted Therapy may be an effective treatment for mental and behavioural disorders such as

Depressive Disorders, Anxiety Disorders, Childhood Developmental Disorders like Autism, Dementia, Alcohol/Drug Addictions and Schizophrenia. It is based on a holistic approach through interaction with animals. <sup>3</sup> They have been used more as add-on treatments as there has been evidence in reducing anxiety and depression features, reducing unhealthy behaviours associated with the disease and improving their social interactions.

The interaction with animals for this purpose is to improve the patient's mental, social, cognitive, emotional and physical functions. Sessions involve various activities such as games, sports and animal care. They are done individually or in groups, and like any other form of treatment, they are tailored to suit each patient's needs. <sup>4</sup>

The role that dogs play in the lives of people is that their presence alone can contribute to peace and well-being. However there are reports that show that their involvement in the treatment of mental illness for several decades, and the benefits obtained are significant.

The aim of this case series is to highlight the role of animals, particularly dogs, and their advantages as an adjuvant treatment for mental illness.

### **CASE DESCRIPTION -**

1. **CASE 1:** A 28 year old woman living with her mother and grandmother presented to a Psychiatrist for complaints of feeling lonely and sad, feelings of emptiness, losing the will to live, death wishes, excessive worry about the future, preoccupied with the worst possible outcomes in her life and sleep disturbances for 2 months. She had a history of physical, emotional and verbal abuse in her childhood along with authoritarian parenting and divorce of parents at the age of 10 years. 15 days after lockdown began, she attempted to end her life by slitting her wrists. Her MSE showed a depressed mood with decreased range and reactivity, prolonged reaction time, depressive cognition and suicidal ideas. She was diagnosed with Major Depressive Disorder. On HAM-D, her initial scores were 23, which indicates the severity of her Depression. Antidepressants along with CBT was started. She was compliant on her medications and was regular for therapy. After 15 sessions of CBT, the expected outcome of therapy was not reached as per objective assessment and her HAM-D scores were at 21. Hence a more personalised approach was then sought - Dog Assisted Therapy (DAT), as an adjuvant to Antidepressants and CBT. She attended twice weekly Dog Assisted Therapy sessions apart from once weekly CBT sessions. There was a predominant improvement in her mood, energy and activity levels. Her HAM-D scores also improved and were at a 15. She started to have a more positive outlook to life and there was a noticeable improvement in her interaction with her family. Soon she even adopted a dog which brought about an improvement in her life. Currently, the client is maintaining well.
2. **CASE 2:** A 20 year old girl who was a straight A student was living with her family. She was hospitalised right before her UG Final exams after having a stress related breakdown due to pressure of her upcoming exams. She had a history of low mood, decreased interest, fatigue, low energy, decreased interaction and sleep disturbances for the past year that increased more so over the past month. There was a family history of depression in her mother and attempted suicide in her grandmother and aunty. On consulting with a Psychiatrist, she was diagnosed with Depressive Disorder. Her HAM-D score was initially 25. The client was started on medications and therapy which she was regular with. Though there was improvement, she still felt empty. Her HAM-D score was 19 at that time. The psychiatrist suggested that she would benefit from Dog Assisted Therapy. She attended once a week session as an adjuvant to her primary line of management. After a 2 months of DAT, the client's mood improved and she felt her life was better in terms of quality. Her HAM-D score was 10. She started giving tuition classes and her interaction was better. She is emotionally more happy and is able to carry out her roles and responsibilities.
3. **CASE 3:** A 30 year old woman, living with her family was diagnosed with Major Depressive Disorder co-morbid with OCD when she was about 21 years. She was irregular on medications for many years. Her psychological condition got worse after a life threatening accident (RTA) where she was in

a coma for almost a month. She suffered major damage to her frontal lobe which resulted in several personality changes that brought about many conflicts in her interpersonal and social areas of functioning. She used to take drugs like alcohol, cannabis etc impulsively. She had a labile mood most of the time. She was less concerned about her acts and their consequences. Due to this, her family managed to get her to consult a Psychiatrist. Her MSE showed an agitated mood, ideas of helplessness and hopelessness, death wishes and impaired cognitive functions. She scored 16 on HAM-D and 20 on Y-BOCS. Her Lobar Function Tests showed she had personality changes, difficulty in planning, initiating, executing and organising activities along with inability to make decisions, control her behaviour. This indicated deficits in her DLPFC, orbital and basal areas of her frontal lobe. She was started on medications and therapy. Apart from this, a more personalised approach was sought and used as an adjuvant to her management plan. She was advised to attend Dog Assisted Therapy sessions 2-3 times per week. Her interaction and anxiety improved. She was able to work and now has started her own fitness studio that she heads. She has become responsible and more positive after she was initiated with Dog Assisted Therapy.

### **PROTOCOL OF DAT:**

DAT is a structured therapeutic program that involves dogs that are specially trained for facilitating the therapeutic process. In order for a dog to be certified as a therapy dog, the therapist must undergo an orientation workshop and the dog must undergo a Temperament Evaluation Session. They must work as a unit on the field that involves a certain number of hours and involves working with your dog as a team under the supervision of senior therapist and handler.

- Step 1 - Interaction between the trained dog and client
- Step 2 - Touching the trained dog to facilitate interactions between client and dog

- Step 2 - Play therapy with the trained dog such as fetch, frisbee, tug of war
- Step 3 - Participation in physical exercise like walking and jogging
- Step 4 - Grooming the trained animal

Time Period - 1 month (twice weekly sessions) or 2 months (once a week sessions) with a duration of 1 hour each.

This protocol was followed in each of the cases described above.

Psychological Assessments were done once per week after the session ended.

### **DISCUSSION -**

Some of the benefits of Dog Assisted Therapy are: A. Emotional support and Stress relief B. Learning Cognitive Self-Care skills and Improving Self-Image C. Cultivating Social skills and D. Providing opportunities for activity and training.<sup>1</sup>

Dog Assisted Therapy (DAT) is different from adopting a dog. Adopting a dog is different as the adopted dog is not trained to facilitate a therapeutic session. The presence of the dog itself can cause feelings of calmness and optimism as well as it helps to establish trust and make a person more responsible. Petting (soothing touch) increases social response hormones and decreases stress response hormones for the one who is being petted and the one who is petting. On the other hand, therapy dogs are trained to facilitate the interaction with the client. They have undergone specific training and along with a trained therapist are instructed what to do during a therapy session. There is a biological aspect to DAT which involves the activation of two very important systems - 1) Survival system, which is associated with the Fight-Flight-Freeze actions (Stress Response System) and 2) Thrive system, which is associated with Reward and gratification (Social Response System). Activation of Stress Response System (survival system) shows an increase in the production of the following hormones - cortisol, adrenalin, aldosterone. Whereas, activation of Social Response System (thrive system), makes the hormones associated with stress decrease and the hormones associated with wellness increase. These hormones are as follows: Oxytocin, Endorphins,

Dopamine & Serotonin. Endorphins & Serotonin lift mood. Dopamine stimulates reward system in brain and results in a sense of gratification/pleasure. Oxytocin enhances social bonding and also lowers blood pressure, normalises heart rate, lowers anxiety and distress.

It is well documented in the literature that Dog Assisted Therapy (DAT) is a feasible and dynamic alternative for children, adolescents, adults and elderly patients with various forms of mental disorders.<sup>5</sup> Dog Assisted Therapy (DAT) does not depend on any particular psychological theory, but can be incorporated into various types of them.<sup>6</sup>

A study by Martina Lundqvist et al.<sup>7</sup> showed in their systematic review that the number of patients included in the studies varied from 23 and 100 and cognitive disorder dominated the selected studies.<sup>8,9,10,11,12,13,14</sup> The studies also differed regarding control group treatments. In Friedman et al., Thodberg et al. and Lutwack et al. the control group participants were given another structured intervention. In Majic et al., Olsen et al. and Travers et al. the control group was treated as usual. In the study conducted by Bono et al. the control group received no active intervention. Travers et al. showed that patients with worse baseline depression scores in the DAT group, significantly improved depression scores in comparison to the control group. They also found significant improvements in quality of life.

### **STATUS OF DAT IN INDIA:**

Very few NGOs in India are properly registered and are dedicated to promote awareness about the benefits of the human-animal relationship and the healing effects of animals on humans. These NGOs consist of a team of therapists from various mental/medical health professions and volunteers from various other fields. They train pets to be 'Therapy Animals' who work with them as co-therapists or volunteer with their owners on visiting various people in need.

### **CONCLUSION:**

Dog Assisted Therapy as an add-on to traditional methods of managing psychological disorders leads to several important benefits for patients suffering from them. This kind of therapy leads to changes that has a beneficial effect on the social interactions of patients, as well as has positive consequences on the cognitive, psychological and emotional functioning of individuals. It also improves the abilities and skills that have been impaired due to the underlying psychological disorder. New skills can also be incorporated into therapy. This improves the person's self-image and their overall quality of life. Research on Animal Assisted Therapy needs to be broadened and focus should be given to the psychological aspect as an adjuvant therapy. More evidence is required to highlight its strengths so that Animal Assisted Therapy can be established as an appropriate mode of intervention in India.

### **CLINICAL IMPLICATION:**

Dog-Assisted Therapy (DAT) will be very useful as an Adjuvant Therapy in Depressive Disorders and can be used in the rehabilitation of these clients to reintegrate them back into society.

### **REFERENCES:**

1. Benefits of Animal Assisted Therapy in Mental Health, Konstantinos Koukourikos et al., International Journal of Caring Sciences, September-December 2019 Volume 12 | Issue 3| Page 1899
2. Animal assisted therapy: Systematic review of literature Mandra et al., CoDAS 2019; 31(3):e20180243, DOI: 10.1590/2317-1782/20182018243
3. Effectiveness of animal-assisted therapy: A systematic review of randomized controlled trials, Hiroharu Kamioka et al. Complement Ther Med., 2014 Apr; 22(2):371-90. doi:10.1016/j.ctim.2013.12.016. Epub 2014 Jan 6. PMID: 24731910
4. Jackson, J. (2012). Animal- Assisted Therapy: The human-animal bond in relation to human health and wellness. Available from: <https://www.winona.edu/counseloreducation/i>

- images/justine\_jackson\_capstone.pdf. Accessed at June 12, 2019
5. Mangalavite A.M. (2014). Animal-Assisted Therapy: Benefits and Implications for Professionals in the Field of Rehabilitation. Available from: Research Papers. Paper 547. [http://opensiuc.lib.siu.edu/gp\\_rp/547](http://opensiuc.lib.siu.edu/gp_rp/547) Accessed at June 25, 2019
  6. Delta Society (2008). What are animal assisted Available online <http://www.deltasociety.org/Document.Doc?> Accessed at July 10, 2019
  7. Lundqvist, M., Carlsson, P., Sjodahl, R., et al. Patient benefit of dog-assisted interventions in health-care: a systematic review. *BMC Complement Altern Med* 17, 358 (2017). <https://doi.org/10.1186/s12906-017-1844-7>
  8. Lutwack-Bloom P, Wijewickrama R, Smith B. Effects of pets versus people visits with nursing home residents. *J Gerontol Soc Work*. 2005;44(3/4):137–59.
  9. Majić T, Rapp MA, Gutzmann H, Heinz A, Lang UE. Animal-assisted therapy and agitation and depression in nursing home residents with dementia: a matched casecontrol trial. *Am J Geriatr Psychiatry*. 2013;21(11):1052–9.
  10. Travers C, Perkins J, Rand J, Bartlett H, Morton J. An evaluation of dog- assisted therapy for residents of aged care facilities with dementia. *Anthrozoös*. 2013;26(2):213–25.
  11. Bono AV, Benvenuti C, Buzzi M, Ciatti R, Chiarelli V, Chiambretto P, et al. Effects of animal assisted therapy (AAT) carried out with dogs on the evolution of mild cognitive impairment. *G Gerontol*. 2015;63(1):32–6.
  12. Friedmann E, Galik E, Thomas SA, Hall PS, Chung SY, McCune S. Evaluation of a pet-assisted living intervention for improving functional status in assisted living residents with mild to moderate cognitive impairment: a pilot study. *Am J Alzheimers Dis Other Demen*. 2015;30(3):276–89.
  13. Olsen C, Pedersen I, Bergland A, Enders-Slegers MJ, Patil G, Ihlebaek C. Effect of animal-assisted interventions on depression, agitation and quality of life in nursing home residents suffering from cognitive impairment or dementia: a cluster randomized controlled trial. *Int J Geriatr Psychiatry*. 2016;31(12):1312–21.
  14. Thodberg K, Sorensen LU, Christensen JW, Poulsen PH, Houbak B, Damgaard V, et al. Therapeutic effects of dog visits in nursing homes for the elderly. *Psychogeriatrics*. 2016;16(5):289–97.