

## Original Research

# Unleashing the Healing Power of Native/Local/Desi Dog Breeds: A Novel Approach to Animal-Assisted Therapy for Mentally Challenged Children and Caregivers

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### ABSTRACT

**Background:** Mental health disorders affect 10–20% of children globally, with an Indian prevalence of 12–15%. Animal-Assisted Therapy (AAT) has shown promise in supporting mentally challenged children, yet research on the therapeutic role of native Indian dog breeds remains scarce. **Objectives:** This study aimed to evaluate the impact of native/local (Desi) dog breeds in AAT for mentally challenged children and their caregivers. **Materials and Methods:** A prospective study was conducted at a district hospital in Amritsar involving 112 children, with 92 completing the study. Children were categorized based on pet ownership: those owning local/native breeds (n=40) and those owning foreign breeds (n=12). Anxiety levels were assessed using the Hamilton Anxiety Scale (HAM-A) pre- and post-3–6 months of pet ownership. Statistical analysis was performed using SPSS v23, with a p-value <0.05 considered significant. **Results:** Both groups showed significant reductions in HAM-A scores post-pet ownership (p<0.001 for native breeds; p=0.002 for foreign breeds). However, no significant difference was observed between native and foreign breed groups post-intervention (p=0.65). **Conclusion:** Native dog breeds are as effective as foreign breeds in AAT for mentally challenged children. Their easier maintenance, affordability, and adaptability highlight their potential for broader implementation in therapeutic programs across India.

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### INTRODUCTION

Mental health disorders among children are a growing concern worldwide, with approximately 10-20% of children and adolescents experiencing mental health issues. In India, the prevalence of mental health disorders among children is estimated to be around 12-15%. Animal-assisted therapy (AAT) has emerged as a promising complementary treatment for mentally challenged children, providing a unique opportunity for social interaction, emotional support, and stress relief.

Despite the growing popularity of AAT, there is a dearth of research on the effectiveness of indigenous breeds as therapy dogs, particularly in the Indian context. Most studies on AAT have focused on foreign breeds, with limited attention given to the potential benefits of using local breeds. This study aims to bridge the knowledge gap by investigating the

therapeutic potential of Native/Local/Desi breeds in AAT for children with mental challenges.

### MATERIALS & METHODS

This investigation aimed to explore the impact of native pets on children and their caregivers' psychological and social well-being. Conducted in the paediatric department of a district hospital in Amritsar, India, the study received approval from the Ethics Committee and the Institutional Review Board (IRB number REF 12/03/2018). Informed consent was obtained from the children's legal guardians.

### Participant Selection and Grouping

A total of 112 children were recruited for the study, with 20 participants lost to follow-up. Pet ownership was established in 52 children, and out of 52, 40 were native or local breeds like Indian Pariah dog, Mudhol and Punjabi mastiff, etc, and others have foreign

breeds like Dachshund small legs, German shepherd, Labrador, etc, and they formed the compliant group. The remaining 40 children comprised the non-compliant group. Demographic data, including age, gender, disease type, mental retardation degree, and intelligence quotient, were recorded for all children and their caregivers.

### Data Collection and Analysis

A qualified clinical psychologist assessed the children's intelligence quotient (IQ) and diagnosed mental health conditions based on the International Classification of Diseases (ICD-10) criteria. The Hamilton Anxiety Scale (HAM-A) was administered to all children before (PRE) and after 3-6 months of pet dog ownership (POST). Pre and post scores were recorded and subjected to statistical analysis using SPSS version 23 (IBM Corp., Armonk, NY). Descriptive and comparative statistics were generated, and chi-square tests, t-tests, or analysis of variance (ANOVA) were applied as appropriate. A p-value of <0.05 was considered significant, while a p-value of <0.001 was deemed extremely significant.

### Assessment Tools

The HAM-A, a widely used rating scale for anxiety symptoms, was employed to assess mental and physical stress in children and their caregivers. The scale comprises 14 items, each describing a symptom related to anxiety. The total score range is 0-56, with the following severity interpretations:

- 0-17: Mild anxiety severity
- 18-24: Mild to moderate anxiety severity
- 25-30: Moderate to severe anxiety severity

### RESULTS

It was observed that maximum people 40 (76.9%) had a local dog as their pet followed by a pug, labrador and beagle 3 (5.8%each), dachshund small legs 2 (3.8%), and German shepherd 1 (1.9%) It was observed that no significant differences were observed on comparing the HAM-A score concerning the breed of the pet owned

**Table: Comparison of HAM-A score between children having local dogs and other breeds in the compliant group.**

	Local/native dogs (n=40)	Others (n=12)	p-value
Pre-pet score	19.98±.3	19.68±8.09	0.89
Post pet score	14.60±4.72	13.92±3.82	0.65
p-value	<0.001**	0.002*	

\*p<0.05; Significant and \*\*p<0.001; Highly Significant

The post-ownership score between children who owned local breed pets and those who owned other breeds was comparable (p = 0.65).

### DISCUSSION

Pets, such as dogs, are commonly seen as family members and friends. As such, individuals often feel just as close to their pets as to their relatives and friends. Overall, pet ownership has many benefits with regard to both mental and physical health (McConnell, Brown, Shoda, Stayton and Martin, 2011; McConnell, Lloyd and Buchanan, 2017).

Our study suggests that local breeds can serve as a suitable alternative to foreign breeds as companion animals for mentally challenged children. This is attributed to the fact that local breeds offer several advantages that make them a more practical and accessible option for families. One of the primary advantages of local breeds is easier ownership. Unlike foreign breeds, which may require specialized care and housing, local breeds are often better adapted to the local environment and require less maintenance. This makes them a more manageable option for families who may not have the resources or expertise to care for a foreign breed. Another significant advantage of local breeds is lower expenses. Foreign breeds can be expensive to purchase and maintain, which can be a significant burden for families. Local breeds, on the other hand, are often less expensive to purchase and maintain, making them a more affordable option for families. Service dogs are beneficial for children (3), but there are very few Indian studies on dogs as therapy or animal assistance (4).

### CONCLUSION

The findings of this study suggest that local breeds can be a valuable resource for families caring for mentally challenged children. By providing a more accessible and practical option for families, local breeds can help to promote the benefits of companion animal ownership for this population. Furthermore, the use of local breeds as companion animals can also have cultural, social, and economic benefits, making them a valuable resource for communities around the world.

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