

Parental Acceptance of Therapy Dogs in the Dental Clinic



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INTRODUCTION

- Dental anxiety is considered a barrier to care when patients refuse care due to fear. Children have limited communication skills and the inability to cope with dental anxiety is reflected in their behavior¹.
- Pets have multiple benefits for patients- they facilitate positive interactions with others, improve personal relationships, improve sympathy, boost self-confidence, and create a sense of safety².
- There have been multiple examples of Animal Assisted Therapy (AAT) being used successfully in dental practice, from improving behavior in patients receiving sealants⁴, to reducing cortisol levels in children undergoing venipuncture procedures⁵.
- The most commonly used animals in AAT are dogs, due to their ability to be domesticated, ease of feeding size, natural affection for people, and positive response to touch³.
- The primary concerns of caregivers regarding AAT included cleanliness/sanitation, dog's temperament, and allergens⁶.

PURPOSE

- The objective of this cross-sectional study is to determine caregiver attitudes regarding the use of therapy dogs in a pediatric dental clinic.

METHOD

Participants

- Caregivers, parents, or legal guardians of pediatric patients aged 0-13 seen for a dental appointment at a community health center.

Procedure

- The survey started with one question regarding the patient's anxiety level at the time of the survey using the Facial Image Scale. There were then six questions on acceptability of AAT using a five-point Likert scale on the topics of: fear of dogs, opinions on presence of dogs in the waiting room and treatment area, questions on allergies and pet ownership. There were seven demographic questions, and three open-ended questions.
- For questions using the Likert scale, a higher score correlated with lower acceptability of AAT.
- Open-questions were formatted to give guardians a chance to disclose any further comments or concerns regarding the use of AAT and then later organized into themes.

Statistical Analysis

- Data was collected in RedCap and analyzed by NYU Langone Graduate Dental Education Research Team using R Studio. A bivariable analysis was completed with significance level set to $p=0.05$

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Table 1: Demographic Characteristics

	N (%)
Race	
White	168 (87.1%)
African-American	14.7 (7.2%)
Asian	6 (3.1%)
Other, including multi	5 (2.6%)
Parent Allergy	
Yes	5 (2.6%)
No	180 (92.8%)
Don't know	9 (4.6%)
Child Allergy	
Yes	6 (3.1%)
No	176 (90.7%)
Don't know	12 (6.2%)
Dog owner	
Yes	91 (46.9%)
No	103 (53.1%)

Table 2: Bivariate Analysis of potential factors that might influence AAT Acceptance Score

Variable	Response (n)	Total AAT score (mean (SD))	P-Value
Presence of dog in home	Yes (91)	6.9 (3.44)	.003
	No (103)	9.12 (5.37)	
Presence of pet in home	Yes (104)	6.9 (3.64)	.001
	No (90)	8.84 (5.1)	
Child's gender	Female	7.79 (4.42)	.906
	Male	7.78 (4.29)	
Caretaker has an allergy to dogs	Yes (5)	13.20 (9.01)	<.001
	No (180)	7.35 (3.5)	
	Don't Know (9)	14.50 (8.71)	
Child has an allergy to dogs	Yes (6)	11.83 (8.68)	<.001
	No (176)	7.35 (3.50)	
	Don't know (12)	14.50 (8.71)	

*Total AAT acceptance score can range from 6 (high acceptance) to 30 (low acceptance)

FIGURE 1: CONCERNS FOR THE USE OF AAT

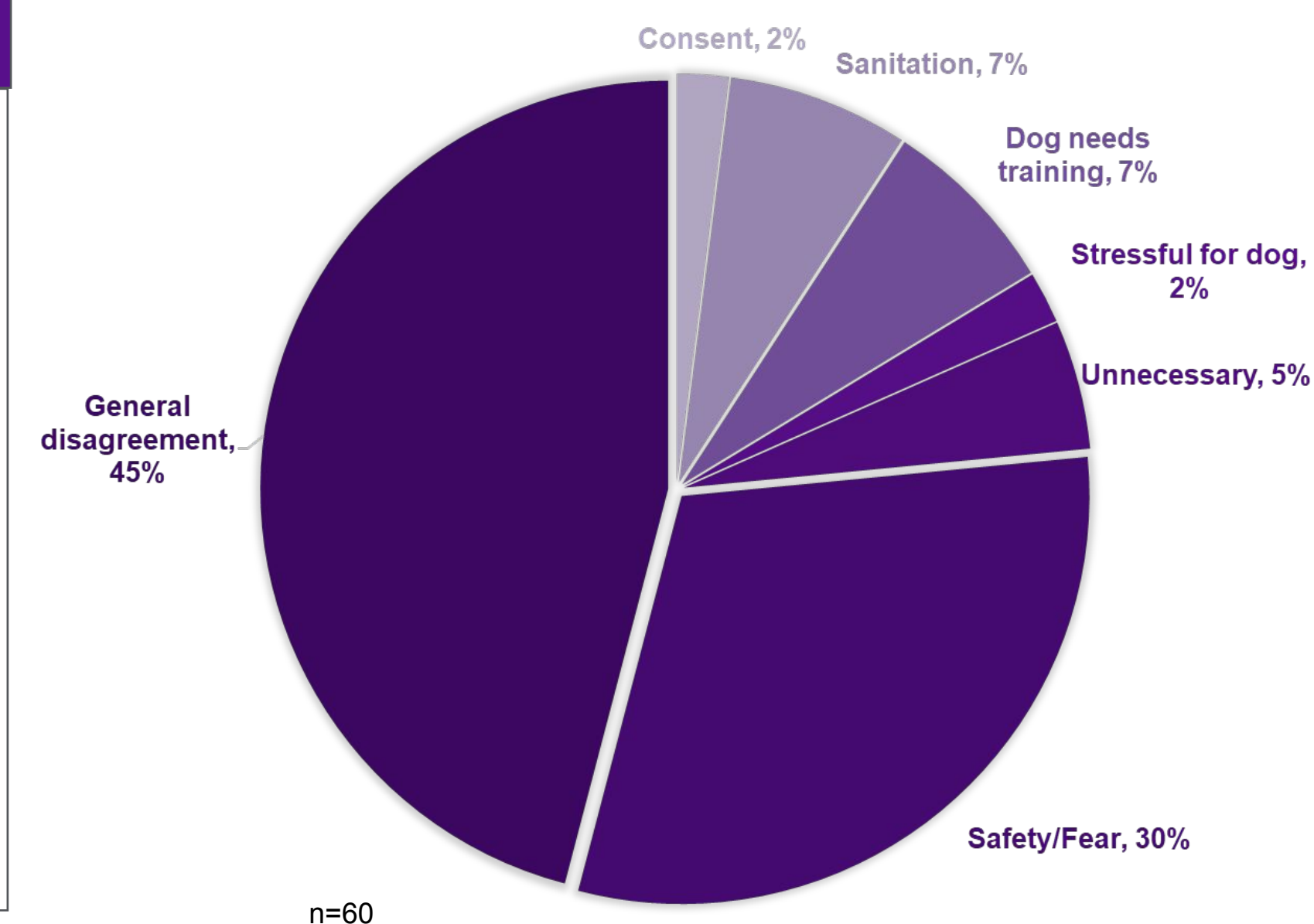
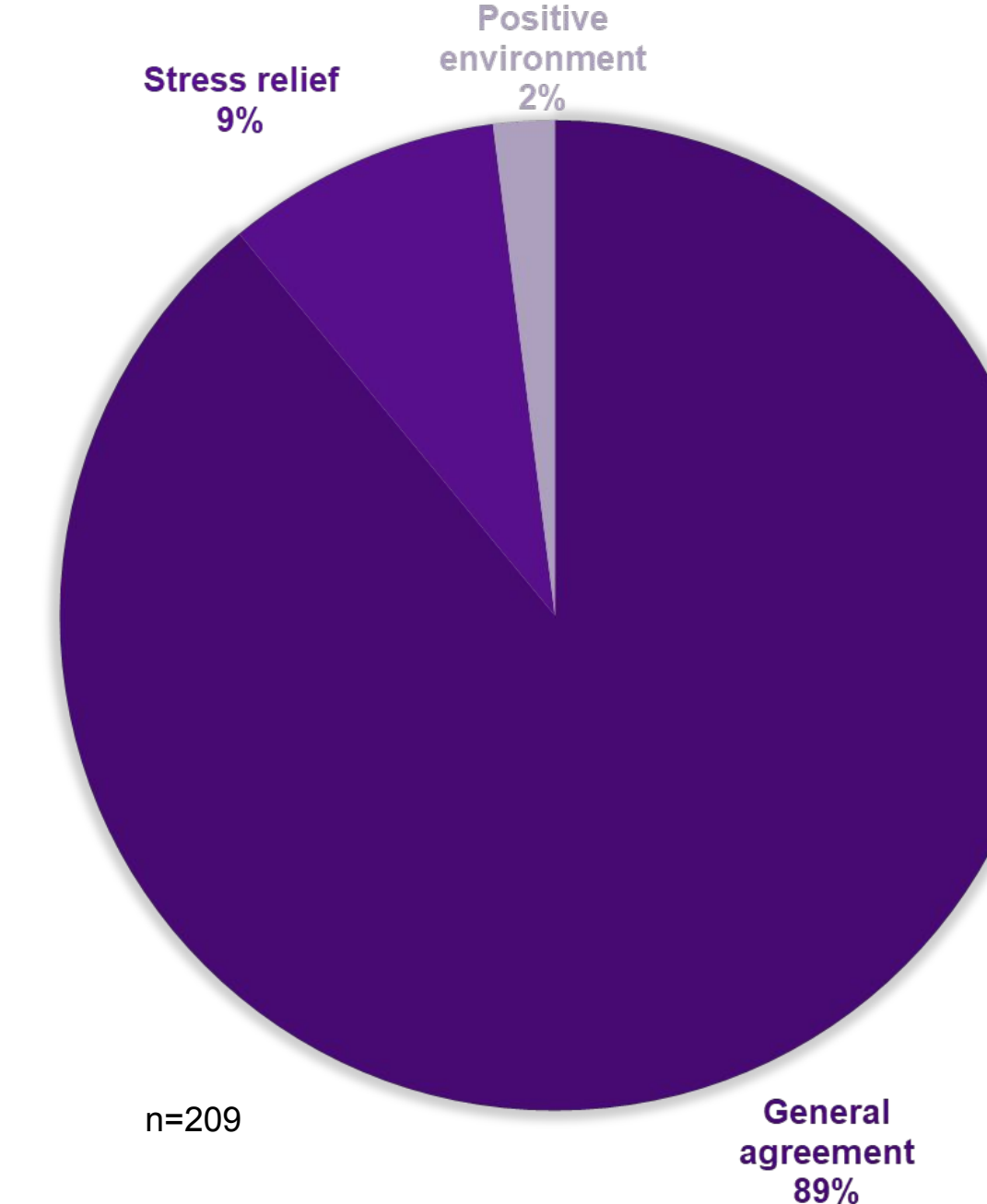


FIGURE 2: POSITIVE RESPONSES REGARDING AAT



RESULTS

- 46.9% (N=91) of respondents reported having a dog in the home, while 53.1% (N=103) denied being a dog owner. The mean (\pm SD) of acceptability from all subjects was 7.93 (4.57). The mean (\pm SD) of acceptability from non-dog owners was 8.84 (5.10). The mean (\pm SD) of acceptability from dog owners was 6.9 (3.64).
- The presence of both a parent's or child's allergy to dogs significantly increased the AAT score, which correlates with a lower acceptance of AAT among those with a parent or child allergy to dogs (parent allergy: 13.20, no parent allergy: 7.4, don't know allergy status: 15.67, $p<0.001$; child allergy: 11.83, no child allergy: 7.35, don't know allergy status: 14.5, $p<0.001$).
- AAT acceptance did not differ based on whether the family identified as Hispanic (yes: 7.82, no: 8.92, $p=0.266$), child's gender (male: 7.87, female: 7.79, $p=0.906$) or the adult's relationship to the child (mother: 8.11, father: 7.09, legal guardian: 6.0, $p=0.386$).
- Open-ended questions demonstrated negative perspectives regarding AAT: that the dog should be well-trained, it may be stressful for the dog, could be too much of a distraction, and sanitation should be considered (Figure 1). One concern of importance was the need for consent for AAT. Positive open-ended responses included benefits of a positive environment in the waiting area, general agreement with AAT and the possibility of stress relief (Figure 2).

LIMITATIONS AND STRENGTH

- Strengths of the study include a large sample size. The large sample size has a higher potential to more accurately reflect the study population and decreases the potential for sampling error.
- The open-ended questions revealed concerns from families that had not previously been considered by earlier studies.
- A limitation of this study was that this was conducted in a single-site, reducing generalizability to the general population. The survey design relies on caregivers as a proxy for their child's opinions. This may be an inaccurate or incomplete reflection of the child's true preferences and be biased towards the caregivers' preferences.
- There is a potential for bias with a single researcher analyzing the open-ended responses.

CONCLUSIONS

- Overall, dog owners had a higher acceptance rate for AAT whereas non-dog owners had a lower acceptance. Based on the survey results, it can be concluded that patients who identify as pet-owners or dog-owners will support the use of AAT in pediatric dentistry.
- Dentists seeking to implement AAT should consider evaluating whether the use of AAT will be supported in their practice based on the dog ownership level amongst their clientele.

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