Parental Perceptions of Therapy Dogs in Pediatric Dentistry

Kayley Neukam DDS | Ghassam Ansari DDS, MSc, PhD
UCLA School of Dentistry - Pediatric Dental Residency

UCLA Dentistry
Pediatric Dentistry

Introduction

Dental fear and anxiety affect an estimated 10-20% of children and are recognized barriers to receiving quality oral health care. These anxieties can interfere with cooperation, prolong treatment, and contribute to avoidance of future dental care (Cianetti et al., 2017). Pediatric dentists employ various behavior management strategies including tell-show-do, distraction, positive reinforcement, and pharmacologic methods such as nitrous oxide or general anesthesia. While effective, pharmacologic interventions can increase treatment cost, complexity, and risk — underscoring the need for additional non-pharmacologic approaches (Klingberg & Broberg, 2007). Animal-assisted interventions (AAI), particularly therapy dogs, have demonstrated significant benefits in medical, psychological, and educational environments. Their presence has been shown to reduce anxiety, lower physiological stress responses (including heart rate and cortisol levels), and improve patient satisfaction (Kamioka et al., 2014; Calcaterra et al., 2015). In pediatric hospitals, therapy dogs have been associated with calmer patient behavior and more positive attitudes toward treatment (Tsai et al., 2010). Within dentistry, this area of research remains relatively new but promising. Studies report that therapy dogs during pediatric dental visits can reduce anxiety, promote relaxation, and enhance cooperation (Thakkar et al., 2021; Charowski et al., 2022; Pinheiro et al., 2023). However, a recent systematic review concluded that current evidence remains insufficient to make formal clinical recommendations (Ribeiro et al., 2023).Understanding parental perceptions is critical before introducing therapy dogs into clinical dental settings. Parents play a central role in their child's dental care decisions, and their support is essential for success. Identifying parental concerns — including allergies, infection control, and safety — is also important for ensuring feasibility and ethical implementation.

Objective

To evaluate parental perceptions of therapy dogs as a tool for anxiety relief and behavior management in pediatric dentistry, and to identify factors associated with parental willingness to participate in a therapy dog program.

Materials and Methods

Study Design: Descriptive cross-sectional survey. Conducted at the UCLA Children's Dental through a single-session study with no follow-up.

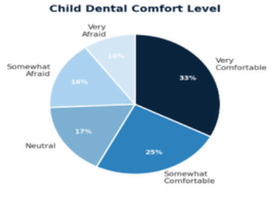
Participants: Parents or legal guardians of children aged 6-12 years who are patients of the UCLA Children's Dental Center, classified as ASA I or II. The 6-12 age range was selected because children in this developmental stage possess sufficient cognitive and emotional maturity to benefit from behavioral management interventions such as therapy dog presence. Parents or legal guardians of children with known dog allergies or prior negative experiences with dogs were excluded.

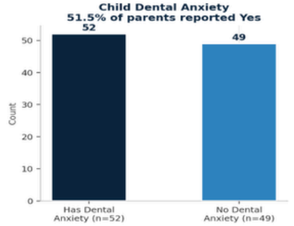
Instrument:

- Demographics, child dental history
- Prior dog exposure and comfort level with friendly dogs
- Acceptability by dental scenario (7 scenarios, Likert 1-5)
- Perceived benefits of therapy dogs (6 items, Likert 1-5)
- Perceived risks/barriers and safety requirements
- Hypothetical participation intent

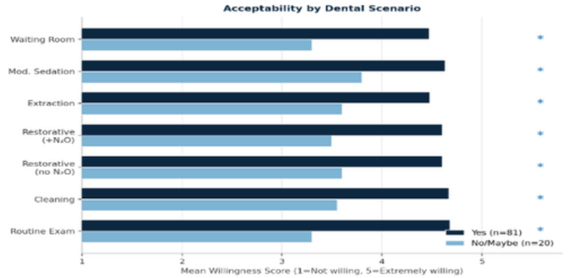
Statistical Analysis: Respondents dichotomized into Yes vs. No/Maybe groups. Fisher's exact test for categorical variables; Two sample T-tests for continuous variables.

Results

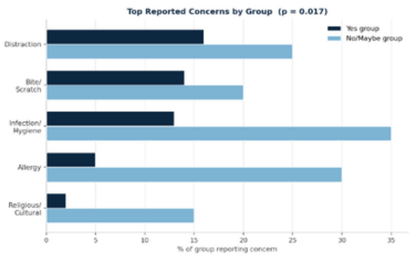




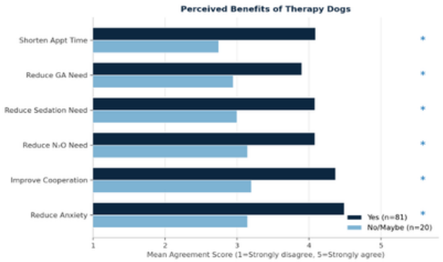
Key Finding: Parental willingness was not significantly associated with child dental anxiety (p = 0.135), suggesting therapy dogs have broad appeal beyond anxious patients. Prior therapy dog exposure was the strongest predictor (p = 0.048) — parents whose children had previously interacted with a therapy dog in a healthcare setting were significantly more likely to say yes.



Key Finding: Willingness was high across all seven scenarios including moderate sedation and extractions (mean 4.47-4.68 in Yes group vs. 3.30-3.80 in No/Maybe). Routine exams and cleanings scored highest.
p < 0.05 for all scenarios. Yes group (n=81) scored significantly higher than No/Maybe group (n=20) on every procedure type.



Key Finding: The most common concerns were distraction during treatment, bite/scratch risk, and infection/hygiene. No/Maybe respondents were more likely to hold multiple simultaneous concerns. Notably, safety protocol requirements — vaccination records and trained handler — were rated highly by both groups equally, indicating that rigorous safety standards are essential for program credibility regardless of baseline willingness.



Key Finding: Reducing dental anxiety (mean 4.49) and improving cooperation (mean 4.37) were highest-rated, suggesting parents view therapy dogs primarily as a behavioral support tool. Critically, parents also endorsed reduced need for nitrous oxide, moderate sedation, and general anesthesia.

Discussion

Is parental willingness associated with a child's level of dental anxiety?
Parental willingness was not significantly associated with child dental anxiety (p = 0.135). This notable finding suggests therapy dogs are viewed as broadly appealing, not just a last resort for anxious children. Even parents of children who perform well at dental visits expressed strong openness, supporting a universal program available to all pediatric patients rather than one limited to high-anxiety cases.
Are perceptions of benefits associated with willingness to participate?
Yes. Parents in the Yes group rated all six benefit items significantly higher (all p < 0.003). The highest-rated were reducing dental anxiety (4.49) and improving cooperation (4.37). Parents also strongly endorsed reduced need for nitrous oxide, moderate sedation, and general anesthesia. Even modest pharmacologic reductions could substantially impact appointment safety, chair time, and practice economics.
Does willingness vary depending on the type of dental procedure?
Yes. Acceptability was high across all seven scenarios and significantly higher in the Yes group for every procedure type (all p < 0.05). Mean scores ranged from 4.47-4.68 (Yes) vs. 3.30-3.80 (No/Maybe). Routine exams and cleanings scored highest.
Are specific parental concerns associated with decreased willingness?
Yes. Concern profiles differed significantly (p = 0.017). No/Maybe respondents were more likely to hold multiple simultaneous concerns. The most common were distraction during treatment, bite/scratch risk, and infection/hygiene. Notably, 54% of Yes respondents reported no concerns at all vs. 40% of No/Maybe respondents. These findings identify the barriers that must be addressed proactively through clear communication about protocols, handler certification, and safety safeguards.
What factors are overall associated with parental willingness?
The only variable significantly predicted participation intent: prior therapy dog exposure (p = 0.048). Families whose children had previously interacted with a therapy dog in a healthcare setting were significantly more likely to say yes. Child age, parent education, household dog ownership, and dental anxiety were all non-significant, indicating willingness is broadly distributed across demographic groups.
Limitations: Single-center convenience sample at UCLA CDC; findings may not generalize to all practice settings. The No/Maybe group (n=20) limits statistical power for subgroup analyses. Parental perception does not confirm clinical efficacy. Response bias is possible.

Conclusion

Therapy dog programs are best introduced with routine and prophylaxis appointments before expanding to restorative, extraction, and sedation visits as patient and staff familiarity builds. Patient education about handler certification, infection control protocols, and physical safety measures should be provided proactively, particularly for families who have not had prior exposure to therapy animals in a healthcare setting. Future research should prioritize randomized controlled trials measuring objective outcomes including behavioral cooperation scores, salivary stress biomarkers, procedure chair time, and pharmacologic requirement rates. Long-term studies should evaluate whether repeated therapy dog exposure produces sustained reductions in dental anxiety and avoidance behaviors across childhood and adolescence. Broader implementation research should examine optimal handler training standards and clinic workflow integration to inform evidence-based program guidelines.

References

- Cianetti S, et al. Eur J Paediatr Dent. 2017;18(2):121-130.
- Klingberg G, Broberg AG. Int J Paediatr Dent. 2007;17(6):391-406.
- Kamioka H, et al. Complement Ther Med. 2014;22(2):371-390.
- Calcaterra V, et al. PLOS ONE. 2015;10(6):e0125813.
- Tsai CC, et al. Anthrozoös. 2010;23(3):245-258.
- Thakkar TK, et al. Eur Arch Paediatr Dent. 2021;22(5):869-875.
- Charowski K, et al. J Clin Pediatr Dent. 2022;46(3):179-184.
- Pinheiro SL, et al. J Clin Pediatr Dent. 2023;47(1):54-60.
- Ribeiro CDPV, et al. Int J Paediatr Dent. 2023;33(4):389-398.