

On the use of pets to manage dental anxiety

Lora Manley

School of Dental Medicine, University of Connecticut, Farmington, Connecticut, USA

ABSTRACT

Dental anxiety and fear can be a significant barrier to dental care, with symptoms ranging from feelings of unease to avoidance of care. The management of anxious patients is essential to improve their oral health. Triggers include sights, sounds, sensations, and smells of the equipment used in restorative procedures, and management should focus on controlling these factors. Recommendations for controlling these triggers include distraction and pharmacological interventions. In medicine, distractions include animal-assisted therapy, which proves an effective means of reducing anxiety levels. Studies have shown that interactions with live animals reduce self-reported anxiety more than distractions by either humans or magazines. The media also addresses the valuable role of emotional support by animals in boosting health and enhancing lives. In the past year, numerous news stories have reported regarding the use of certified therapy by dogs to comfort anxious patients in dental practices across the United States. Dogs serve to distract patients, drawing their focus away from dentistry, and generate a positive energy that enliven both the staff and the patients. The positive impact that therapy dogs have had on patients' dental experiences cannot be overstated. The incorporation of pet anti-anxiety therapy is a safe, effective, and inexpensive approach to easing dental anxiety and has profound potential for improving oral health.

Key words: Animal-assisted therapy, dental fear, distraction emotional support animals, therapy dogs

Introduction

Despite improvements in patient care and technological advances in modern dentistry, patient anxiety persists as a widespread challenge that every dentist must face at some point in their career. The typology of dental anxiety is on a spectrum from minor to severe, where some patients express feelings of unease, whereas others experience an intense, unreasonable fear that can be so strong it prevents them from receiving routine dental care. Manifestations of dental anxiety in the dental office include muscular tension, crying, and aggression,^[1] whereas outside the dental environment, individuals may experience negative or fearful thoughts, exhibit avoidance behavior, suffer sleep and eating disturbances, or resort to self-medication.^[2] Furthermore, highly anxious patients tend to take longer to treat,

which not only heightens patient anxiety but may also serve as an economic risk to the practitioner.

A barrier to dental care

Dental fear and anxiety is a significant barrier to dental care, and is associated with the avoidance of dental treatment, and hence poorer oral health and related quality of life. A study in 2007 reported that 41% cases of irregular dental attendance was attributed to high dental fear, and thus, those who attended the dentist irregularly were more likely to be afraid of going to the dentist than those who attended regularly.^[3] In addition, high dental fear has been significantly associated with more decayed and missing teeth, but fewer filled teeth,^[4] which is supported by another study that reported that dentally anxious individuals had eight to nine decaying

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

Cite this article as: Manley L. On the use of pets to manage dental anxiety. *Dent Hypotheses* 2016;7:117-9.

Access this article online

Quick Response Code:



Website:
www.dentalhypotheses.com

DOI:
10.4103/2155-8213.190518

Corresponding Author: Dr. Lora Manley, School of Dental Medicine, University of Connecticut, Farmington, Connecticut, USA.

E-mail: lmanley@uchc.edu

teeth compared with only one or two in the general population.^[5] These studies emphasize the importance of identifying and reducing dental fear in an attempt to improve oral health.

No single variable is exclusively responsible for the development of dental anxiety, which makes it a complicated phenomenon to manage appropriately.

While individual personality characteristics contribute significantly to the experience of anxiety or phobia, studies reveal numerous factors that are consistently linked with a greater incidence of dental pain and anxiety, including (1) previous painful experiences, (2) a belief that painful treatment is inevitable, (3) feelings of helplessness and loss of control, (4) a fear of the unknown, (5) exposure to fear-provoking portrayals of dentists in the media or anecdotal stories of bad experiences, (6) an experience of depersonalization, and (7) embarrassment.^[6] Furthermore, studies have shown that restorative procedures encompass the most powerful triggers known as the “4 S’s;” sights, sounds, sensations, and smells of needles and drills.^[2] In addition, the amount of time spent in the waiting room has been reported to be anxiety provoking allowing time to worry about what is going to happen. Thus, management of anxious patients often aims to reduce these triggers.

From meditation to medication

Current recommendations for easing anxiety range from meditation to medication. Several non-pharmacological factors have been shown to play a significant role in alleviating dental anxiety, including, but not limited to, having a calm dental office ambience, inhalation of pleasant scents to improve mood, visual and auditory distraction (such as background music, television sets, and computer games),^[7] and hypnotherapy.^[5] Though many of these interventions require further study in randomized trials before conclusions regarding their efficacy can be made, a randomized controlled clinical trial found that a brief relaxation method was significantly superior to music distraction in reducing dental anxiety level.^[8] On the pharmacological level, management of dental anxiety includes benzodiazepine and diazepam (valium) premedication, local anesthetics (lidocaine and mepivacaine), topical anesthetics, nitrous oxide sedation, conscious sedation, and general anesthesia.^[9] Society as a whole depends too much on prescriptions rather than the natural, wonderful, calming benefits of other means.

Animals and our health

In April 2016, Time Magazine published an issue titled “Animals and Your Health; the Power of Pets to Heal our Pain, Help Us Cope, and Improve Our Well-Being,” illustrating the valuable effects that animals have on our health. The issue addressed several topics including emotional-support animals, how animals boost our health, help us connect, help ease posttraumatic stress disorder in suffering soldiers and veterans, and overall enhance our lives. From cats and dogs to pigs, birds, mice, rats, hedgehogs, iguanas, and goats, the National Service Animal Registry (NSAR) certifies a broad range of species as emotional-support animals (ESAs), many of which are used as alternative treatment for those with anxiety disorders, which according to the Anxiety and Depression Association of America affects roughly 40 million Americans.^[10]

Animal-assisted therapy is a complementary medicine intervention that is often used to sense negative emotions and offer comfort to anxious or injured patients. Researchers at UCLA quantified effects from a friendly dog visit and found that anxiety levels were 9 points lower after a dog visit, compared with the control.^[11] Furthermore, these studies demonstrate that the benefits from therapy dogs exceed those from spending time with a friendly human volunteer, and even endure beyond the time of the dog encounter. In 2003, Shiloh *et al.* showed that only petting a live animal and not a toy animal reduced self-reported anxiety, whereas Barker *et al.* demonstrated that a 15 minute interaction with an animal significantly reduced anxiety and fear compared to the control group which read magazines.^[12] Interestingly, there are numerous studies that support animal-assisted therapy as an effective means of reducing the experience of pain, pain related symptoms, and anxiety in the medical field, supported by hemodynamic measures and neurohormone levels, however, there appear to be no studies that evaluate its value in the dental field.

Therapy dogs in the dental office

Recently, news stories have reported the use of certified therapy dogs for easing dental anxiety. An increasing number of dental practices, including but not limited to the Chicago Dental Society Foundation Clinic, Hermitage Dentistry in Pennsylvania, Golden Pediatric Dentistry and Orthodontics in Virginia, and Pediatric Dentistry of Northbrook, Illinois, use certified therapy dogs that are trained to sense negative emotions and offer comfort to anxious patients. At the Northbrook

clinic, a Golden Retriever named Jo Jo is a member of the clinic who sits on children's laps and serves as a "distraction tool so the patients don't focus in as much on the dentistry."^[13] Dr. Golden, of Golden Pediatric Dentistry and Orthodontics, reports that, while some dentists have fish tanks or birds, he wanted something that children would like to play with, and has had so much success with his dog Flossie, that he is considering creating a resource for dentists who are interested in using therapy dogs in their practice. Further, Dr. Paul A. Weiss, a dentist in New York, states that the addition of a therapy dog has had a positive impact on his practice, changing "the energy of the office with her personality" and eliciting a "playful, fun, accepting, and happy energy that permeates the staff and the patients."^[14]

The incorporation of a therapy dog must take into account the infection control guidelines and potential health risks. Dr. Weiss says he avoids this problem by only bringing the dental dog in during "clean procedures" including simple restorations and prophys.^[14] As previously mentioned, restorative procedures have been shown to deliver the most potent triggers of dental anxiety, which would mean the addition of a therapy dog for these procedures would pose few issues but potentially profound benefits. As such, through volunteer services, pet anti-anxiety therapy visits offer an effective and inexpensive strategy for easing anxiety and pain, and its role in the dental office should be further explored.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Cohen SM, Fiske J, Newton JT. The impact of dental anxiety on daily living. *Br Dent J* 2000;189:385-90.
2. Hmud RA, Walsh LJ. Dental Anxiety: Causes, Complications and Management Approaches. *J Minim Intervention Dent* 2009;2:67-78.
3. Pohjola V, Lahti S, Vehkalahti MM, Tolvanen M, Hausen H. Association between dental fear and dental attendance among adults in Finland. *Acta Odontol Scand* 2007;65:224-30.
4. Armfield JM, Slade GD, Spencer AJ. Dental fear and adult oral health in Australia. *Community Dent Oral Epidemiol* 2009;37:220-30.
5. Gordon D1, Heimberg RG, Tellez M, Ismail AI. A critical review of approaches to the treatment of dental anxiety in adults. *J Anxiety Disord* 20013;27:365-78.
6. Bare LC, Dundes L. Strategies for combating dental anxiety. *J Dent Educ* 2004;68:1172-7.
7. Appukuttan DP. Strategies to Manage Patients with Dental Anxiety and Dental Phobia: Literature Review. *Clin Cosmet Investig Dent* 2016;8:35-50.
8. Lahmann C, Schoen R, Henningsen P, Ronel J, Muehlbacher M, Loew T, *et al*. Brief relaxation versus music distraction in the treatment of dental anxiety: A randomized controlled clinical trial. *J Am Dent Assoc* 2008;139:317-24.
9. Dealing with Dental Anxiety. *Delta Dental* 2009. Available from: <http://oralhealth.deltadental.com/adult/dentalvisit/22,HD30>. [Last accessed on 10 July 2016].
10. Sanburn, J. *Creature Comforts*. Time, Inc., *Animals and Your Health: The Power of Pets to Heal our Pain, Help us Cope, and Improve our Well-Being* 2016:8-13.
11. Marcus DA. The science behind animal-assisted therapy. *Curr Pain Headache Rep* 2013;17:322.
12. Beetz A, Uvnäs-Moberg K, Julius H, Kotrschal K. Psychosocial and Psychophysiological Effects of Human-Animal Interactions: The Possible Role of Oxytocin. *Front Psychol* 2012;3:234.
13. Prakash A. Meet the dog who makes kids actually LIKE going to the dentist. *TODAY*. 2016. Available from: <http://www.today.com/pets/meet-dog-who-makes-kids-actually-going-dentist-t84496>. [Last accessed on 10 July 2016].
14. Prichard D. Dogs Take a Bite Out of Dental Office Anxiety. *Spear Education*. 2012. Available from: <https://www.speareducation.com/spear-review/2012/12/dogs-take-a-bite-out-of-dental-office-anxiety>. [Last accessed on 10 July 2016].

Staying in touch with the journal

1) Table of Contents (TOC) email alert

Receive an email alert containing the TOC when a new complete issue of the journal is made available online. To register for TOC alerts go to www.dentalhypotheses.com/signup.asp.

2) RSS feeds

Really Simple Syndication (RSS) helps you to get alerts on new publication right on your desktop without going to the journal's website. You need a software (e.g. RSSReader, Feed Demon, FeedReader, My Yahoo!, NewsGator and NewzCrawler) to get advantage of this tool. RSS feeds can also be read through FireFox or Microsoft Outlook 2007. Once any of these small (and mostly free) software is installed, add www.dentalhypotheses.com/rssfeed.asp as one of the feeds.