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Review Article

Clinical implications of Brainwave Entrainment in dentistry

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Abstract

Dental anxiety is a frequent obstacle in periodontics, hindering treatment compliance, increasing pain perception, and adversely influencing clinical results. New neuroscientific findings indicate that maladaptive oscillatory neural patterns could be involved in increased anxiety, a condition that can be defined as brain wave entrapment. This happens when cortical functions become entrapped in high-arousal beta states, consolidating fear and stress reactions in periodontal treatment. In contrast, brain wave entrainment—synchronization of brain rhythms to external stimuli like binaural beats, photic driving, or rhythmic music—has been found to decrease anxiety and enhance patient satisfaction in dentistry. Randomized controlled trials in pediatric and adult dental patients verify that entrainment interventions decrease preoperative anxiety, and reviews of auditory and visual entrainment document consistent modulation of neural activity associated with relaxation. This review integrates evidence linking brain wave entrapment with periodontal health, assesses existing interventions, and defines future applications of neurostimulation methods to boost patient-centered periodontal treatment.

Keywords: *Dental Anxiety; Periodontics; Neurostimulation Techniques; Brain Waves; Complementary Therapies.*

INTRODUCTION

Periodontal disease is a chronic inflammatory process that involves the gingiva, periodontal ligament, and alveolar bone, with microbial biofilm and host immune response as major determinants [1]. Psychological tension and worry are becoming accepted modifying factors that worsen periodontal outcomes through behavioural and physiological mechanisms [2]. Specifically, dental anxiety is associated very closely with treatment avoidance, compromised oral hygiene, and deterioration of periodontal status [3]. A review by Locker [4] highlighted the psychosocial effects of dental anxiety, demonstrating its correlation with functional impairment and lower quality of life. In periodontal treatment, for example, scaling and root planning, anxiety is a major limitation. A cross-sectional study proved that the level of dental anxiety was related to higher pain perception during periodontal treatment [5].

In a similar manner, Marwah et al [6] demonstrated that non-pharmacological distraction intervention, like music, was effective in decreasing paediatric dental anxiety, as well as how much dental anxiety plays a vital role in treating neural and psychological responses during dentistry Neuroscience studies form the basis for mechanisms understanding. Neural oscillations, subdivided into delta, theta, alpha, beta, and gamma bands, control states of awareness, relaxation, and alertness [7]. Hyperactivity of beta waves has been associated with hypervigilance and anxiety, and decreased alpha

activity indicates compromised relaxation [8]. We conceive brain wave entrapment as an adaptive neurophysiological condition in which cortical activity becomes "trapped" in anxiety-associated beta rhythms, strengthening fear and stress reactions during dental treatment [9]. In contrast, brain wave entrainment is the synchronization of neural function with external rhythmic stimulation, including binaural auditory beats or photic driving. There is evidence that entrainment can create alpha and theta activity and produce relaxation and analgesic effects [10].

Will & Berg showed that rhythmic auditory stimulation may synchronize cortical activity, whereas Lopez-Diaz et al. [11] found that alpha entrainment using visual stimulation minimized chronic pain patients' pain substantially. Within dentistry, entrainment-based treatments are becoming popular. Randomized controlled trials by Shehani et al. [13] validated that brainwave entrainment efficiently decreased preoperative anxiety in paediatric dental patients. Isik et al [14] also showed that binaural beats could effectively reduce dental anxiety in adult patients receiving oral surgery. Systematic reviews and meta-analyses of binaural auditory beats support their effectiveness in influencing anxiety and pain perception across clinical settings [15].

The entrapment–entrainment distinction has special relevance in periodontics, where patient anxiety not only detracts from cooperation but could also exacerbate periodontal outcome via immunologically mediated mechanisms of stress. Aragão et al. [16] noted that dental anxiety was associated with increased probing depths and more bleeding on probing among adults. Padilla-Fonseca et al. [17] found similar associations between dental anxiety and poorer oral-health-related quality of life in people with periodontitis and so was used here as the best matched evidence for that claim. Therefore, the conceptualization of brain wave entrapment offers a neurobiological model for explaining the cyclical feedback loop between stress, fear, and periodontal disease progression. This review proposes the concept of brain wave entrapment in dentistry, describes its neurobiological basis, reviews evidence from entrainment-based interventions, and discusses its future implications for periodontal therapy.

MATERIALS AND METHODS

A review was conducted using PubMed, Scopus, and Google Scholar databases. Search terms included: brain wave entrainment, brain wave entrapment, dental anxiety, periodontics, binaural beats, photic driving, neurostimulation, and pain modulation. Articles were screened for relevance to dentistry and periodontics, with emphasis on randomized controlled trials, systematic reviews, and observational studies.

RESULTS AND DISCUSSIONS

The following studies have demonstrated that audiovisual entrainment, rhythmic music, and binaural beats are among the most effective methods for managing children and adults during dental procedures. They relieve anxiety, reduce pain, and increase patient satisfaction across prophylaxis, endodontics, and prosthodontics.

Limitations of Current Evidence

Research in the field is limited to small trials mostly in single centres, Direct trials in periodontics are few; most evidence is extrapolated from populations in dental surgeries or chronic pain. Varied protocols (frequency, duration, modality) make a comparison difficult.

Long-term impact on periodontal outcome is still not established.

Future Directions

RCTs in adult and pediatric periodontics to investigate entrainment protocols for use during scaling, root planing, and periodontal surgery. Integration of EEG monitoring for tailoring interventions based on neural signatures of anxiety. Multimodal interventions: auditory, visual, and VR based on entrainment for maximum effect. Study the long-term effects of periodontal treatment adherence and clinical outcomes. Standardization of protocol: frequency ranges, session time, and its relation to treatment.

Neurobiological Basis of Brain Wave Entrapment

Given the maladaptive state, brain wave entrapment is one wherein cortical oscillatory activity remains "locked" within high-arousal patterns, particularly in elevated beta frequencies, so the patient is in great anxiety, fear, and pain during dental procedures [8]. Gruzelier [9] review has observed that maladaptive neural oscillations accentuate hypervigilance and obstruct relaxation in predisposed patients with neurological or stress-related conditions. Higher beta activity is related to heightened sympathetic activation and anticipatory anxiety, while lesser alpha and theta rhythms lead to poorer relaxation [7]. Will & Berg [10] reported that external rhythmic stimuli could synchronize brain waves and thereby generated a theoretical basis for the use of entrainment to shift maladaptive patterns. In dentistry, this kind of entrainment may be manifested through anticipatory fear, hyperarousal during periodontal therapy, and pain hypervigilance [9,11].

Dental Anxiety and Its Relationship with Periodontal Health

Dental anxiety adversely affects oral health behaviours, such as plaque control, home hygiene, or the observance of periodontal treatment [4]. Aragão et al. [16] reported that higher dental anxiety in adults is associated with deeper probing depths and greater bleeding on probing, thereby causing worsening periodontal outcomes. Similarly, Padilla-Fonseca et al. [17] reported that patients with higher dental anxiety had poorer oral health-related quality of life measures in the context of periodontitis. Dental anxiety is not merely a behavioural phenomenon: the neurophysiological changes during dental visits exacerbate periodontal inflammation. Increased stress responses induce cortisol release and regulate immune function, with enhanced susceptibility to periodontal tissue destruction [2]. Shehani et al. [13] highlighted that preoperative brainwave interventions had the potential to regulate anxiety levels and alleviate physiological stress responses in children.

BRAINWAVE ENTRAINMENT TECHNIQUES IN DENTISTRY

Auditory Entrainment – Binaural Beats

Binaural beats entail the presentation of two slightly disparate frequencies to each ear, yielding an internal beat frequency that orchestrates neural synchronization. Garcia-Argibay et al. [15] showed that binaural auditory beats decrease anxiety and pain perception in clinical populations. In dental practice, Isik et al. [14] reported that adult patients who underwent binaural beats before oral surgery had reduced preoperative scores of anxieties compared to controls. Shehani et al [13] performed a randomized controlled trial among paediatric dental patients, demonstrating that alpha-targeted brainwave entrainment strongly decreased fear and enhanced behavioural cooperation. These investigations indicate that auditory entrainment is a viable non-pharmacological addition to periodontal treatment for decreasing brain wave entrapment.

Visual / Photic Stimulation

Photic driving is rhythmic light stimulation that entrains cortical oscillations. Lopez-Diaz et al [11] illustrated that alpha entrainment in the visual modality decreases pain perception in patients with chronic pain. While direct periodontic trials are few, principles of visual entrainment can be applied to dental situations, utilizing VR goggles or rhythmic visual prompts during periodontal therapy to promote relaxation.

Music and Multisensory Interventions

Music therapy has been extensively researched in paediatric dentistry. Marwah et al. [6] found that music distraction was an effective method of reducing children's fear and anxiety during dental treatment. Multi-modal interventions, with the combination of auditory and visual stimuli, have been shown to enhance entrainment effects, further inducing relaxation and pain reduction [6,12].

Entrapment vs. Entrainment: Conceptual Framework (Table 1)

Entrapment serves as a vehicle for non-cooperation during scaling, root planing, and surgical procedures. The conceptual differences between brain wave entrapment and entrainment are summarized in Table 1. Binaural beats and music therapies shift patients preoperatively from high-beta anxiety states to alpha-dominant relaxation [6,13,14]. Multisensory entrainment in virtual environments can further alleviate stress during procedures [12,19]. According to Aragão et al [16] managing dental anxiety improves periodontal outcomes by encouraging compliance to therapy. Padilla-Fonseca [17] maintained that organized intervention to address stress and anxiety may reduce periodontal inflammation simply through enhanced patient compliance.

Table 1: Conceptual differences between brain wave entrapment and entrainment.

Feature	Brain Wave Entrapment	Brain Wave Entrainment
Definition	Maladaptive locking of cortical oscillations in high-arousal patterns	Synchronization of neural activity with rhythmic external stimuli
Neurophysiology	Elevated beta, reduced alpha/theta; hypervigilance	Induced alpha/theta, reduced beta; relaxation
Clinical Manifestation	Anxiety, pain amplification, avoidance	Reduced anxiety, improved cooperation, analgesic effect
Evidence in Dentistry	Observational and EEG-based studies	RCTs and reviews of binaural beats, music, VR
Intervention Goal	Break maladaptive pattern	Shift to relaxed neural state

Entrapment serves as a vehicle for non-cooperation during scaling, root planing, and surgical procedures. Binaural beats and music therapies shift patients preoperatively from high-beta anxiety states to alpha-dominant relaxation [6,13,14]. Multisensory entrainment in virtual environments can further alleviate stress during procedures [11,19]. According to Aragão et al.[16], managing dental anxiety improves periodontal outcomes by encouraging compliance with therapy. Padilla-Fonseca et al. [17] maintained that organized intervention to address stress and anxiety may reduce periodontal

inflammation simply through enhanced patient compliance. A summary of these evidence-based findings is presented in Table 2.

Table 2: Summary of Evidence-Based Dental Studies

Population	Intervention	Outcome	Reference
Paediatric dental patients	Alpha-targeted brainwave entrainment	Reduced preoperative fear and anxiety	[13]
Adult oral surgery patients	Binaural beats	Reduced preoperative anxiety	[14]
Paediatric dental patients	Music distraction	Reduced fear, improved behaviour	[6]
Adults	432 Hz music vs. binaural beats	Anxiety reduction	[20]

Table 3: Potential Applications of Brainwave Modulation

Application	Intervention	Evidence	Key Findings
Music-based relaxation	Music genres and preoperative listening	Shih et al. [21]	Decreased sympathetic activity and improved pre-surgical calmness
Pre-treatment anxiety reduction	Binaural beats, music therapy	Bhusari et al. [22]	Both binaural beats and music reduced preoperative anxiety and improved cooperation in children
Pain and anxiety control in adults	Binaural beats	Shukla et al. [23]	Meta-analysis confirmed significant reduction in pain and anxiety among adults and children
Intraoperative relaxation	Binaural beats during treatment	Ponni et al. [24]	Reduced intraoperative anxiety levels in pediatric dental patients
Music-based behavioral guidance	Alpha-frequency brainwave entrainment	Kupeli & Gülnahar [25]	Demonstrated effective fear control and positive behavioral outcomes
Behavioral guidance in children	Alpha-frequency brainwave entrainment	Ramar & Mani [26]	Demonstrated effective fear control and positive behavioral outcomes

Table 4: Brain Wave Entrainment Applications Across Dental Specialties

Dental Specialty	Clinical Context	Entrainment Modality Used	Observed / Potential Benefits	References
Periodontics	Scaling, root planing, surgical debridement	Binaural beats (alpha), VR audiovisual entrainment	↓ Preoperative anxiety, ↓ pain perception, improved cooperation, potential modulation of inflammatory stress responses	[13,17,19]
Oral & Maxillofacial Surgery	Third molar extraction, implant placement	Music therapy (432 Hz), binaural beats	↓ Sympathetic activation, reduced intraoperative stress and postoperative pain	[25,20]
Endodontics	Root canal treatment	Alpha-theta binaural beats, rhythmic visual entrainment	↓ Procedural anxiety, improved focus for patients with dental phobia, ↓ perceived pain	[23,26]
Prosthodontics	Denture fabrication, impressions	Music entrainment, photic driving	Improved relaxation during lengthy procedures, patient satisfaction, easier impression-taking	[21]
Orthodontics	Bracket bonding, activation	Neurofeedback, auditory entrainment	Better patient tolerance, ↓ anxiety in children and	[25,22]

	appointments		adolescents, reduced stress-related bruxism	
Pediatric Dentistry	Behaviour management, preventive care	Alpha-frequency entrainment, binaural beats, music distraction	Strong evidence of ↓ fear, improved cooperation, calm behavioural patterns	[13,22]
Operative/Restorative Dentistry	Cavity preparation, restorations	Audiovisual entrainment (music + light)	Relaxation without pharmacologic sedation, ↓ stress-induced movement	[15,10]
Implantology	Surgical placement, osseointegration phase	Photic entrainment, neurofeedback-guided relaxation	↓ Anxiety, potential improved osseointegration through stress modulation	[18,11]

Entrapment serves as a vehicle for non-cooperation during scaling, root planing, and surgical procedures. Binaural beats and music therapies shift patients preoperatively from high-beta anxiety states to alpha-dominant relaxation [6,13,14]. Multisensory entrainment in virtual environments can further alleviate stress during procedures [12,19]. According to Aragão et al. [16] managing dental anxiety improves periodontal outcomes by encouraging compliance to therapy. Timmermann et al, [18] maintained that organized intervention to address stress and anxiety may reduce periodontal inflammation simply through enhanced patient compliance. Recent evidence has shown that binaural beats and brainwave entrainment are utilized in many modern areas of dentistry, such as pediatric dentistry, oral surgery, restorative dentistry, and general clinical practice. The range of clinical applications and supporting evidence for brainwave modulation is outlined in Table 3.

The methods have been found to ease anxiety regarding treatments, establish rapport with the patient, and make them feel more comfortable, all without the administration of medication. Another study from Menziletoglu et al. [20] has proven that using binaural beats had the potential to lessen anxiety in patients undergoing dental treatment. Bhusari et al [22] showed that binaural beats and patient-preferred music were both soothing and could positively influence behaviour during pediatric dental treatment. Shukla et al, [23] performed a meta-analysis which revealed that binaural beats may reduce anxiety and pain in adults and children attending the dentist. Shehani et al. [13] and Ramar & Mani [26] introduced additional clinical evidence that alpha-frequency brainwave entrainment significantly decreases preoperative anxiety and improves patient behaviour in both adults and children.

Singh et al found that binaural beats can reduce anxiety in surgical children, whereas Kupeli & Gülnahar [25] found that certain music genres made adolescents less anxious during third-molar extractions. Miyata et al reported that patients who listened to music before surgery exhibited reduced sympathetic activity, promoting calmness during stressful procedures. Timmermann et al. [18] discovered that listening to audio-visual material for 20 minutes at an alpha frequency helped brain regions synchronize, leading to a relaxed state. These studies provide strong evidence that brainwave entrainment benefits not only dental surgery but also anxiety management, pain reduction, and behavioural modification across all fields of dentistry. Combined auditory and visual entrainment techniques show promise for pre-operative calming, intra-operative relaxation, and post-operative pain reduction. These patient-friendly alternatives integrate well with standard dental procedures. A comprehensive overview of entrainment applications across dental specialties is presented in Table 4.

CONCLUSION

Brain wave entrapment is a maladaptive neurophysiological condition among dental and periodontal patients that is defined by increased beta activity and ongoing anxiety, which increases pain perception and interferes with cooperation. Findings from RCTs, observational studies, and reviews show that brainwave entrainment interventions like binaural beats, music, photic stimulation, and VR can decrease anxiety, control cortical activity, and improve patient experience. Conceptualization of brain wave entrapment in periodontics offers a roadmap to appreciate the interconnection between neural oscillations, dental fear, and periodontal condition. Future studies must emphasize well-controlled trials, EEG-guided therapy, and multimodal strategies to convert these neurophysiologic findings into tangible clinical instruments for enhancing patient satisfaction and periodontal status.

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REFERENCES

1. Hajishengallis, G. (2015). Periodontitis: From microbial immune subversion to systemic inflammation. *Nature Reviews Immunology, 15*(1), 30–44.
2. Horton, M. A. (2019). Human factors in dentistry. *Primary Dental Journal, 8*(2), 30–33.

3. Armfield, J. M., Spencer, A. J., & Stewart, J. F. (2006). Dental fear in Australia: Who's afraid of the dentist? *Australian Dental Journal, 51*(1), 78–85.
4. Locker, D. (2003). Psychosocial consequences of dental fear and anxiety. *Community Dentistry and Oral Epidemiology, 31*(2), 144–151.
5. Peretz, B., & Efrat, J. (2000). Dental anxiety among young adolescent patients in Israel. *International Journal of Paediatric Dentistry, 10*(2), 126–132.
6. Marwah, N., Prabhakar, A. R., & Raju, O. S. (2005). Music distraction—Its efficacy in management of anxious pediatric dental patients. *Journal of Indian Society of Pedodontics and Preventive Dentistry, 23*(4), 168–170.
7. Başar, E., Başar-Eroğlu, C., Karakaş, S., & Schürmann, M. (2000). Brain oscillations in perception and memory. *International Journal of Psychophysiology, 35*(2–3), 95–124.
8. Knyazev, G. G. (2013). EEG correlates of self-referential processing. *Frontiers in Human Neuroscience, 7*, 264.
9. Gruzelier, J. H. (2014). EEG-neurofeedback for optimising performance. I: A review of cognitive and affective outcome in healthy participants. *Neuroscience & Biobehavioral Reviews, 44*, 124–141.
10. Will, U., & Berg, E. (2007). Brain wave synchronization and entrainment to periodic acoustic stimuli. *Neuroscience Letters, 424*(1), 55–60.
11. Lopez-Diaz, K., Henshaw, J., Casson, A. J., Brown, C. A., Taylor, J. R., Trujillo-Barreto, N. J., Arendsen, L. J., Jones, A. K., & Sivan, M. (2021). Alpha entrainment drives pain relief using visual stimulation in a sample of chronic pain patients: A proof-of-concept controlled study. *NeuroReport, 32*(5), 394–398.
12. Padmanabhan, R., Hildreth, A. J., & Laws, D. (2005). A prospective, randomised, controlled study examining binaural beat audio and pre-operative anxiety in patients undergoing general anaesthesia for day case surgery. *Anaesthesia, 60*(9), 874–877.
13. Shehani, F., Samuel, V., Kavitha, R., & Mani, R. (2024). Effectiveness of brainwave entrainment on pre-operative fear and anxiety in pediatric dental patients: A randomized controlled trial. *European Archives of Paediatric Dentistry, 25*(4), 577–587.
14. Isik, B. K., Esen, A., Büyükerkmen, B., Kilinç, A., & Menziletoglu, D. J. (2017). Effectiveness of binaural beats in reducing preoperative dental anxiety. *British Journal of Oral and Maxillofacial Surgery, 55*(6), 571–574.
15. Garcia-Argibay, M., Santed, M. A., & Reales, J. M. (2019). Efficacy of binaural auditory beats in cognition, anxiety, and pain perception: A meta-analysis. *Psychological Research, 83*(2), 357–372.
16. Aragão, W. A., Souza-Monteiro, D. D., Frazão, D. R., Né, Y. G., Ferreira, R. D., Rivera, L. F., Saito, M. T., Rösing, C. K., Fagundes, N. C., Maia, L. C., & Lima, R. R. (2021). Is there any association between chronic periodontitis and anxiety in adults? A systematic review. *Frontiers in Psychiatry, 12*, 710606.
17. Padilla-Fonseca, N., Araya-Castillo, A., Arias-Campos, M. P., Solís-Rivera, A. P., Jiménez-Matarrita, J., & Ramírez, K. (2024). The relationship between dental anxiety and oral health-related quality of life in patients with periodontitis. *Diagnostics, 14*(23), 2624.
18. Timmermann, D. L., Lubar, J. F., Rasey, H. W., & Frederick, J. A. (1999). Effects of 20-min audio-visual stimulation (AVS) at dominant alpha frequency and twice dominant alpha frequency on the cortical EEG. *International Journal of Psychophysiology, 32*(1), 55–61.
19. Keihani, A., Shirzhiyan, Z., Farahi, M., Shamsi, E., Mahnam, A., Makkiabadi, B., Haidari, M. R., & Jafari, A. H. (2018). Use of sine shaped high-frequency rhythmic visual stimuli patterns for SSVEP response analysis and fatigue rate evaluation in normal subjects. *Frontiers in Human Neuroscience, 12*, 201.
20. Menziletoglu, D., Guler, A. Y., Cayır, T., & Isik, B. K. (2020). Binaural beats or 432 Hz music? Which method is more effective for reducing preoperative dental anxiety? *Medicina Oral, Patologia Oral y Cirugia Bucal, 26*(1), e97.
21. Shih, K. C., Hsu, W. T., Yang, J. L., Man, K. M., Chen, K. B., & Lin, W. Y. (2024). The effect of music distraction on dental anxiety during invasive dental procedures in children and adults: A meta-analysis. *Journal of Clinical Medicine, 13*(21), 6491.
22. Bhusari, B. N., Hugar, S. M., Kohli, N., Karmarkar, S., Gokhale, N., & Saxena, N. (2023). Comparative evaluation of anxiety level during restorative treatment using no music, monaural beats, and binaural auditory beats as audio distraction behavior guidance technique in children aged 6–12 years: A randomized clinical trial. *Journal of Indian Society of Pedodontics and Preventive Dentistry, 41*(2), 156–162.
23. Shukla, A. D., Subhadra, H. N., Unnikrishnan, S., & Katre, A. N. (2025). Effectiveness of binaural beats in reducing dental pain and anxiety among children and adults: A systematic review and meta-analysis. *International Journal of Clinical Pediatric Dentistry, 18*(8), 1023.
24. Ponni, K., Dhandapani, S., Kumar, A. P., Solomon, V., Fabi, B. A., & Vennila, M. (2024). Effect of listening to music among patients with dental anxiety. *Bioinformation, 20*(1), 74.
25. Kupeli, I., & Gülnahar, Y. (2020). Comparing different music genres in decreasing dental anxiety in young adults who underwent third molar surgery in Turkey: Randomized controlled trial. *Journal of Oral and Maxillofacial Surgery, 78*(4), 546.e1.
26. Ramar, K., & Mani, R. (2024). Effectiveness of preoperative alpha wave entrainment in pediatric dental patients: A randomized controlled trial. *Cureus, 16*(5).

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