**Critically Appraised Topic (CAT)**

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| **Project Team:** |
| **8B-2** |
| **Project Team Participants:** |
| **Samantha DeRidder, Austin Smith, Sophia Altenburg, Nicole Peters** |
| **Clinical Question:** |
| **What is the best behavioral strategy for managing an anxious patient?** |
| **PICO Format:** |
| **P:** |
| **Patients with anxiety** |
| **I:** |
| **Non-pharmacological techniques** |
| **C:** |
| **Pharmaceutical techniques** |
| **O:** |
| **Reducing their anxiety** |
| **PICO Formatted Question:** |
| In anxious patients, are non-pharmacological techniques an effective alternative to pharmaceuticals in reducing their anxiety? |
| **Clinical Bottom Line:** |
| **Both pharmaceutical and nonpharmaceutical techniques are effective in reducing anxiety in anxious dental patients.** |
| **Date(s) of Search:** |
| **9/8, 9/20, 9/22** |
| **Database(s) Used:** |
| **PubMed, Science Direct, Wiley Online Library** |
| **Search Strategy/Keywords:** |
| **Dental Anxiety, Mental Distress, Non-pharcological interventions, Behavioral Therapy, Treatment Outcome** |
| **MESH terms used:** |
| **Dentistry, Dental Anxiety, Behavioral Therapy** |
| **Article(s) Cited:** |
| **Article 1: Non-pharmacological interventions for reducing mental distress in patients undergoing dental procedures: Systematic review and meta-analysis**  **Burghardt, et. Al.**  <https://0-www-sciencedirect-com.libus.csd.mu.edu/science/article/pii/S0300571217302725?via%3Dihub>  **Article 2: Strategies to manage patients with dental anxiety and dental phobia: Literature Review**  **Appukuttan, et. Al.**  <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4790493/>  **Article 3: Dental Fear in adults: a meta-analysis of behavioral interventions**  **Kvale, et. Al.**  <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1600-0528.2004.00146.x> |
| **Study Design(s):** |
| **Systematic Review, Meta-Analysis, Literature Review** |
| **Reason for Article Selection:** |
| **Each article directly relates to my PICO question with a high level of evidence** |
| **Article(s) Synopsis:** |
| **Article 1: A systematic review of 29 eligible RCTs concluded that non-pharmacological techniques are effective in reducing the mental distress related to dental procedures. The non-pharmacological technique with the largest effect was shown to be hypnosis.**  **Article 2: A literature review giving an overview of the etiology of dental anxiety, and strategies to identify and manage anxious individuals in a dental office with literature evidence. This article discusses the different behavioral management techniques with the literature based benefits of each.**  **Article 3: A systematic review of 38 qualifying studies that concluded that behavior modification techniques results in a reduction of dental fear. 36 of these 38 studies showed a reduction in fear while 2 studies showed no change.** |
| **Levels of Evidence:** (For Therapy/Prevention, Etiology/Harm)  See <http://www.cebm.net/index.aspx?o=1025>  **1a** – Clinical Practice Guideline, Meta-Analysis, Systematic Review of Randomized Control Trials (RCTs)  **1b** – Individual RCT  **2a** – Systematic Review of Cohort Studies  **2b** – Individual Cohort Study  **3** – Cross-sectional Studies, Ecologic Studies, “Outcomes” Research  **4a** – Systematic Review of Case Control Studies  **4b** – Individual Case Control Study  **5** – Case Series, Case Reports  **6** – Expert Opinion without explicit critical appraisal, Narrative Review  **7** – Animal Research  **8** – In Vitro Research |
| **Strength of Recommendation Taxonomy (SORT) For Guidelines and Systematic Reviews**  See article **J Evid Base Dent Pract 2007;147-150**  **A** – Consistent, good quality patient oriented evidence  **B** – Inconsistent or limited quality patient oriented evidence  **C** – Consensus, disease oriented evidence, usual practice, expert opinion, or case series for studies of diagnosis, treatment, prevention, or screening |
| **Conclusion(s):** |
| **Dental anxiety and phobia is an ongoing problem in the dental setting. Therapy for anxious patients should be individualized. It is important to know that there are many non-pharmacological techniques that are effective alternatives to pharmaceuticals in reducing dental anxiety in anxious patients.** |