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| **Name:** |
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| **Group:** |
| 9A-3 |
| **Basic Science Question:** |
| What are the common etiologies of dentistry? |
| **Report:** |
| The primary cause of dental anxiety is a personal adverse experience which is commonly formed during childhood years. In this adverse experience, pain or fear of pain have commonplace. Once this adverse experience takes place, a direct conditioning pathway can take hold, reconsolidating unpleasant memories. The amygdala provides epinephrin in this initial experience, strengthening the neuronal synapses of the situation. This provides the negative emotional association of the dentist with pain. (Debiec)  While the primary cause is fear of pain or pain itself, secondary sources provide trigger points for the establishment and maintenance of dental anxiety. These include pre-existing fears of needles, drilling sound, blood, or even shock-value stories from individuals they trust. The dentist is able to identify dental anxiety through physiological tells—high bp, dry mouth, excessive sweating, etc. (Vaida, Jovanovic-Medojevic)  Other influencing factors on the etiology of dental anxiety is the relationship between patient and practitioner, pre-existing mental health conditions, and genetic mutations. Literature suggests that relationships founded on trust or positive feelings between the dentist and patient reduce anxiety. Additionally, pain, is heightened in those with pre-existing generalized anxiety and genetically in those with the MC1R mutation. The MC1R mutation commonly affects those with natural red hair and requires the practitioner to increase the anesthetic by 20%. (Vaida)  To conclude, the primary etiology of dental anxiety is a directly painful experience which the patient has reconsolidated to create a strong pathway encouraging fight or flight responses by the body. |
| **References:** |
| Debiec, Jacek; LeDoux, Joseph E. Reconsolidation of Pavlovian Conditioned Defense Responses in the Amygdala. New York University, New York, New York; and The Emotional Brain Institute, Nathan Kline Institute for Psychiatric Research, Orangeburg, New York. 2013.  Jovanovic-Medojevic, Milica; Neskovic, Jelena; Medojevic, Aleksandar. Dental Anxiety: Etiology and Treatment Options. Institute for Health Protection Ministry of Internal Affairs, Belgrade, Serbia. 2015.  Vaida, Sebastian & Dumitru, Mariana. (2019). DENTAL ANXIETY FACTORS AND TREATMENTS. |