AN ANALYSIS OF ANXIETY IN DENTAL PROCEDURES

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Introduction

Dental anxiety is characterized as a sense of apprehension before visiting a dentist or considering dental treatments. The consequences of dental anxiety manifest along a spectrum of patient actions, spanning from a lack of visible discomfort to complete avoidance of treatment. The development of dental anxiety can be attributed to various factors and encompasses both bad experiences during dental treatment and psychopathologic personality features. Dental anxiety has been widely attributed to variables such as fear of the unknown, perceived unpredictability of dental treatment, and anticipation of pain. Unlike general dental operations, routine dental hygiene recall/maintenance consists of a limited set of procedures (such as documenting clinical parameters, evaluating/reinstructing oral hygiene, removing soft and hard deposits, and applying fluoride) that are highly predictable. One might hypothesize that the frequency of a patient's attendance to preventive recall appointments and their familiarity with maintenance procedures directly correlates with their ability to overcome pre-treatment anxiety related to future dental hygiene visits. Nevertheless, additional research on dental anxiety in relation to dental hygienist treatment has indicated that there is a distinct level of anxiety linked with visits for oral hygiene. However, there is a scarcity of studies that have particularly investigated dental anxiety in relation to oral hygiene maintenance treatment and whether this anxiety is linked to distinct clinical and psychological traits.

Body

The study *Pre-treatment anxiety in a dental hygiene recall population: a cross-sectional pilot study* aimed to assess the anxiety levels of dental hygiene patients who adhere to a consistent schedule of recall/maintenance therapy appointments. “A study in Finland [7] showed that the subjects in their study who took advantage of dental services on a regular basis were significantly less afraid of going to the dentist than those who only used dental services on an irregular basis. However, other studies on dental anxiety related to dental hygienist treatment have shown that there is still a certain level of anxiety associated with dental hygiene visits [8, 9]” (Hofer et al., 2016). A sample of patients attending a university dentistry clinic for their routine recall/maintenance dental hygiene appointment were requested to complete a brief set of questions while waiting for their scheduled appointment to commence. The data was examined to assess levels of dental anxiety, anticipated pain, stress or relaxation, overall mood and alertness before treatment, as well as general anxiety experienced only from being at a dental facility. The dental procedures conducted in the past, as observed on radiographs or documented in documents, were also recorded. The hypothesis posited that there would be a significant presence of pre-treatment anxiety in the study sample, and this anxiety would be correlated with heightened levels of anticipated pain, tension, and negative mood. The findings confirmed our expectation that the participants in the sample group would have notable anxiety before receiving therapy, which would be associated with increased levels of stress and a worsened mood. The expected pain did not materialize, but a tendency was observed. The hypothesis proposing a negative correlation between the frequency of recall visits and pre-treatment anxiety was refuted. This study aimed to assess the prevalence of pre-treatment anxiety among individuals undergoing dental hygiene recall. The members of the chosen cohort had previously undergone treatment in one or more of the specialist programs provided at the university dental clinic, including restorative, periodontics, endodontic, and prosthetic procedures. The anticipated dental hygiene treatment for the patients encompassed the evaluation of plaque/bleeding indices, imparting oral hygiene education, eliminating plaque, and doing minor calculus removal. Almost one-third of the participants in the trial experienced notable levels of anxiety prior to undergoing treatment. As a result, the population was divided into sub-groups of high anxiety and low anxiety, which uncovered further statistically significant differences in the group outcomes for dental anxiety, current stress levels, mood, alertness, and peacefulness. The measure of state anxiety was utilized as the dependent variable to examine associations with the variables of age, duration of treatment, number of appointments per year, and periodontal categorization. After conducting a more thorough examination of the characteristics of the high-anxiety subjects, it is clear that this group is

significantly younger in comparison to the group with lower levels of anxiety. Across all three investigations, the data consistently show that worry tends to decrease with age, although it does not completely disappear. The high anxiety group exhibited higher pre-treatment anxiety levels and showed an inclination to anticipate more intense pain during treatment in comparison to the low anxiety group. The findings of this investigation closely mirror the outcomes documented in prior research investigations. These findings are often attributed by many authors to factors such as painful procedures (probing, scaling, administration of anesthesia), contextual stimuli (sound of the ultrasonic and polishing handpieces, vibration sensation on the teeth, dental office smell), and past dental/dental hygiene experiences. Plaque-induced gingivitis sometimes arises from lifestyle decisions, particularly the failure to sufficiently eliminate soft deposits from the teeth on a daily basis. Patients suffering from this syndrome may experience ambivalent emotions towards maintaining adequate oral hygiene, even consistently arranging dental hygiene reminder appointments.

Moreover, elevated stress levels prior to treatment can result in a range of behavioral problems, including unresponsiveness to information, reluctance to cooperate with treatment, indifference towards changing home care, and procrastination or avoidance of treatment. Furthermore, it is generally acknowledged that stress contributes to inflammation and impaired repair in periodontal disease. Typical sources of stress that are often mentioned include work, financial issues, relationships with others, and physical health. Until now, the possible correlation between pre-treatment anxiety and stress has not been recognized. However, it is important to conduct further research in this area, especially given our finding that the high-anxiety group had a much higher occurrence of gingivitis compared to the low-anxiety group. While the precise reason why many patients experience high levels of anxiety prior to dental hygiene recall treatment remains unclear, it is the duty of the treating hygienist to aid these patients in overcoming negative emotions associated with preventive/maintenance therapy. The incidence of dental phobia and anxiety has remained relatively stable over the past fifty years despite the progress made in technology and therapeutic approaches. There is no evidence in the literature suggesting that specific coping strategies have been provided to or have meaningfully improved the condition of a subgroup of patients who experience substantial anxiety before treatment.

Conclusion

Pharmacological pain management offers certain benefits for the treatment of anxious people alongside psychological therapy. Previous studies have shown that people with high anxiety tend to consistently expect and remember experiencing more pain than they really do. Furthermore, suppose individuals experience more intense pain than first anticipated. In that case, they will not only anticipate even higher degrees of suffering for future treatments, but their increased level of fear will last for a considerable duration. “The results of our current study showed that the high anxiety individuals had a tendency to experience higher levels of anticipated pain. When patients consistently experience anticipated pain and anxiety before treatment, it is important to help them regularly achieve lower levels of discomfort than predicted. This can aid in reforming their expectations and subsequently diminish their levels of anxiety” (Hofer et al., 2016). Given this, it is crucial to prioritize pain control while treating people with high anxiety. An identified limitation of the current study was the lack of assessment of the duration of pain levels experienced by the subjects. The gradual increase in pain ratings over time can impact current pain ratings. Another limitation was the very small sample size. Increasing the sample size would further reduce any potential bias caused by excluding patients who are hesitant to participate. Moreover, the participants in this study were first referred to our clinic for specialist treatment or independently sought our services due to unsatisfactory experiences in private dentistry practices. Due to the absence of historical records, we cannot establish any correlation between past incidences and their current opinions of the oral hygiene services provided at the clinic.

References

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