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**Evaluation of Dental Anxiety and Fear in Patients who Admitted to the Faculty of  
Dentistry: Which Patients are More Risky in terms of Dental Anxiety.**

DEN 1200-Section A

July 26, 2021

### **Summary of the article:**

Burkay Yakar, Türkkkan Öztürk Kaygusuz, and Edibe Pırınçcı conducted a cross-sectional case-control study to investigate the frequency of dental anxiety, the factors affecting dental anxiety, and the effects of dental anxiety on oral dental health (Yakar et al., 2019). This hospital-based study took place in Turkey and was published on November 1, 2019, in the *Ethiopian Journal of Health Sciences* (<https://pubmed.ncbi.nlm.nih.gov/31741642/>).

Three hundred forty-two patients attending a tertiary dentistry hospital outpatient clinic participated in a socio-demographic questionnaire containing 12 questions. Based on the answers, researchers were able to obtain the independent variables of the study (Yakar et al., 2019). In addition, the patients were asked to answer some questions that allowed researchers to examine specifically patients' dental anxiety scores (MDAS) and trait anxiety scores (STAI). Based on the participant's answers to the questions, patients who had the highest dental anxiety score than any other group were women who were housewives (Yakar et al., 2019). In addition, people who reported having a past painful experience declared having a fear of dentists, and those with an anxiety disorder have an increased anxiety score (Yakar et al., 2019). It was observed that the patients with a higher dental anxiety score had a decreased frequency of dentist control and an irregular brushing habit (Yakar et al., 2019).

The authors concluded that it might be helpful further to investigate the relationship between occupation and dental anxiety (Yakar et al., 2019). Also, dentists should be more careful in terms of anxiety in female patients. Overall, it is thought that the factors causing dental anxiety in patients are well-known and can help dental health clinicians to provide better dental health treatment (Yakar et al., 2019).

### **Article information:**

The article's title is *Evaluation of Dental Anxiety and Fear in Patients who Admitted to Faculty of Dentistry: Which Patients are More Risky in terms of Dental Anxiety*. The authors of the study are Burkay Yakar, Türkkkan Öztürk Kaygusuz, and Edibe Pırınçcı. The article was published in the *Ethiopian Journal of Health Sciences (ajol.info)*. It was published on November 1, 2019. The link to the abstract is (<https://pubmed.ncbi.nlm.nih.gov/31741642/>), and its DOI is

<https://doi.org/10.4314/ejhs.v29i6.8>. According to the authors (2019), "all authors approved this manuscript in its form and that no competing interest exists" (p.719).

### **Study analysis:**

#### **1. Type of study**

Case-control study, cross-sectional study design. The study was conducted in an outpatient clinic of a tertiary dentistry hospital in Turkey from August 2018-October 2018.

#### **2. Study purpose**

The purpose of the study is to investigate the frequency of dental anxiety, the factors affecting dental anxiety, and the effects of dental anxiety on oral dental health of the participants (Yakar et al., 2019). The authors stated that the literature already shows that "dental anxiety makes the treatment difficult for patients and is an obstacle for the protection of dental health" (as cited in Schwarz, 2006, p 442). For example, "dental anxiety cause delays and absence in the dental appointments" (Yakar et al., 2019). The literature also stated that dental anxiety is affected by "the age, gender, marital status, education level and painful experiences" (as cited in Astramskaite, 2016, p. 1630). The authors aimed to understand the factors causing dental anxiety so that dental health professionals can create an environment for an efficient and easy dental examination (Yakar et al., 2019). Overall, through the study, the authors would further gain understanding about which patients are more likely to experience dental anxiety and further corroborate with the literature.

#### **3. Experimental design**

The authors conducted the study using a sample size of 342 patients attending a tertiary dentistry hospital outpatient clinic. Since the authors wanted to observe what patients were more likely to demonstrate dental anxiety and its factors, there was no control group. "All individuals who are volunteers and older than 18 were included in the study. The data was collected by using a socio-economic questionnaire" (Yakar et al., 2019).

This study took place in a time-lapse of three months (August 2018 and October 2018). The researches evaluated the socio-demographic status of each participant, their dental anxiety score, and trait anxiety score. The researchers used the Modified dental anxiety scale (MDAS) to

measure dental anxiety and the Trait anxiety scale (STAI) to measure anxiety levels independent from dental anxiety (Yakar et al., 2019).

After gathering the data, the researchers analyzed the data by "conducting error controls, descriptive tables, and statistical analysis. The information was considered statistically significant in the 95% confidence interval and with a probability of  $p < 0.05$ ." (Yakar et al., 2019, p.721).

The authors evaluated the intelligibility of the questionnaire forms they were going to use to collect their data by applying the questions to a group of 20 participants (Yakar et al., 2019).

#### **4. Results**

The results showed that 42.1% of the participants feared the dentist, 56.4% had a history of a painful and hard dental examination (Yakar et al., 2019). In addition, the results showed the mean score of the Modified dental anxiety score. A score of 19 and above show high levels of dental anxiety (Yakar et al., 2019). Of the participants, 15.2% had MDAS scores of 19 and over (Yakar et al., 2019). The history of dental fear and difficult dental examination was significantly higher in patients with dental anxiety ( $p < 0.005$ ) (Yakar et al., 2019). There was a weak but statistically significant correlation between trait anxiety scores and dental anxiety scores ( $p < 0.001$ ) (Yakar et al., 2019).

Then, the relationship between sociodemographic characteristics and dental anxiety scores showed that MDAS scores were significantly higher in women, those who fear dentists, and in patients with painful dental experience ( $p < 0.001$ ) (Yakar et al., 2019). MDAS scores were specifically higher in women who were housewives. Finally, the STAI score was calculated to measure the trait anxiety in the participants (trait levels independent from dental anxiety). The results showed that trait anxiety was higher in women over 40 years of age, married, and insufficient income (Yakar et al., 2019). The results were statistically significant because the p-value of the results was less than .05, showing that the probability the results were due to chance was low.

## **5. Conclusions**

The researchers concluded that the frequency of dental anxiety was significantly higher in men than in women (Yakar et al., 2019). The outcome supports the literature, which states that the female gender is a risk factor for dental anxiety (as cited in Bodrumlu, 2006, p.51). In addition, dental anxiety rates were higher in housewives than in any other group (Yakar et al., 2019). As a result, a dentist must be more careful when treating patients who are women. It was observed that dental anxiety individuals may have a negative effect on tooth examination and oral health (Yakar et al., 2019). The researchers concluded that the factors found in this study could help patients to overcome their dental anxiety and help to provide better dental health and treatment (Yakar et al., 2019).

## **6. My impression**

I originally wanted to understand the relationship that exists between beliefs influenced by culture and dental anxiety. After much research, I came across this article which analyses different reasons that may cause dental anxiety. One of the factors the researchers did not analyze was the relationship between dental anxiety and culture. They stated early in the introduction that based on the literature, "there is no exact result for the dental fear and anxiety levels because of society's different cultures and traditions" (as cited in Bodrumulu, 2006, pp.51-56).

I think this research is necessary because it analyses something commonly in a dental office. The study's authors affirm that according to the literature, "the incidence of dental anxiety was reported as 20%" (as cited in Firat, 2006, p.51). In addition to this, according to Kristen et al., "anxiety disorders are among the most common mental disorders among Americans, affecting approximately 40 million adults" (2018). As a dental hygienist, I need to be aware of the patients who have anxiety because they are more likely to suffer from dental anxiety (Yakar et al., 2019, p. 723). I will be working with sharp instruments to remove supra/subgingival calculus. Patients who experience dental anxiety may normally perceive the non-painful stimulus as painful because their pain threshold decreases (Boyd, 2020., p614). This lowered pain tolerance will make the dental treatment more challenging for myself and the patient. However, the broader my knowledge about the patients who may experience dental anxiety more often than others, the better equipped I will be in making the situation more tolerable and better. The study article

discussed different factors that increase dental anxiety, and some of these factors describe cases that I see every day in the clinic. For example, some patients whom I see are stay-at-home moms. I learned that these patients are more likely to have dental anxiety (Yakar et al., 2019), which I never considered before. Now, I will pay special attention to what I can do to make their experience better.

The article highlighted the possible psychological and environmental factors that come into play when a person has dental anxiety. Understanding the psychological factors is significant to me because it will allow me to understand my patient adequately. For example, suppose I learned that a patient has a negative experience with dental treatment. In that case, I will investigate ways that will help to minimize some things that may trigger an anxiety attack. Overall, I will apply the knowledge I have learned when reading this article in the clinic to enhance my patient's experience and help them to reduce their dental anxiety.

## Sources

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