

# The Root of the Problem: Evaluating Demographic Patterns and Causes of Dental Anxiety

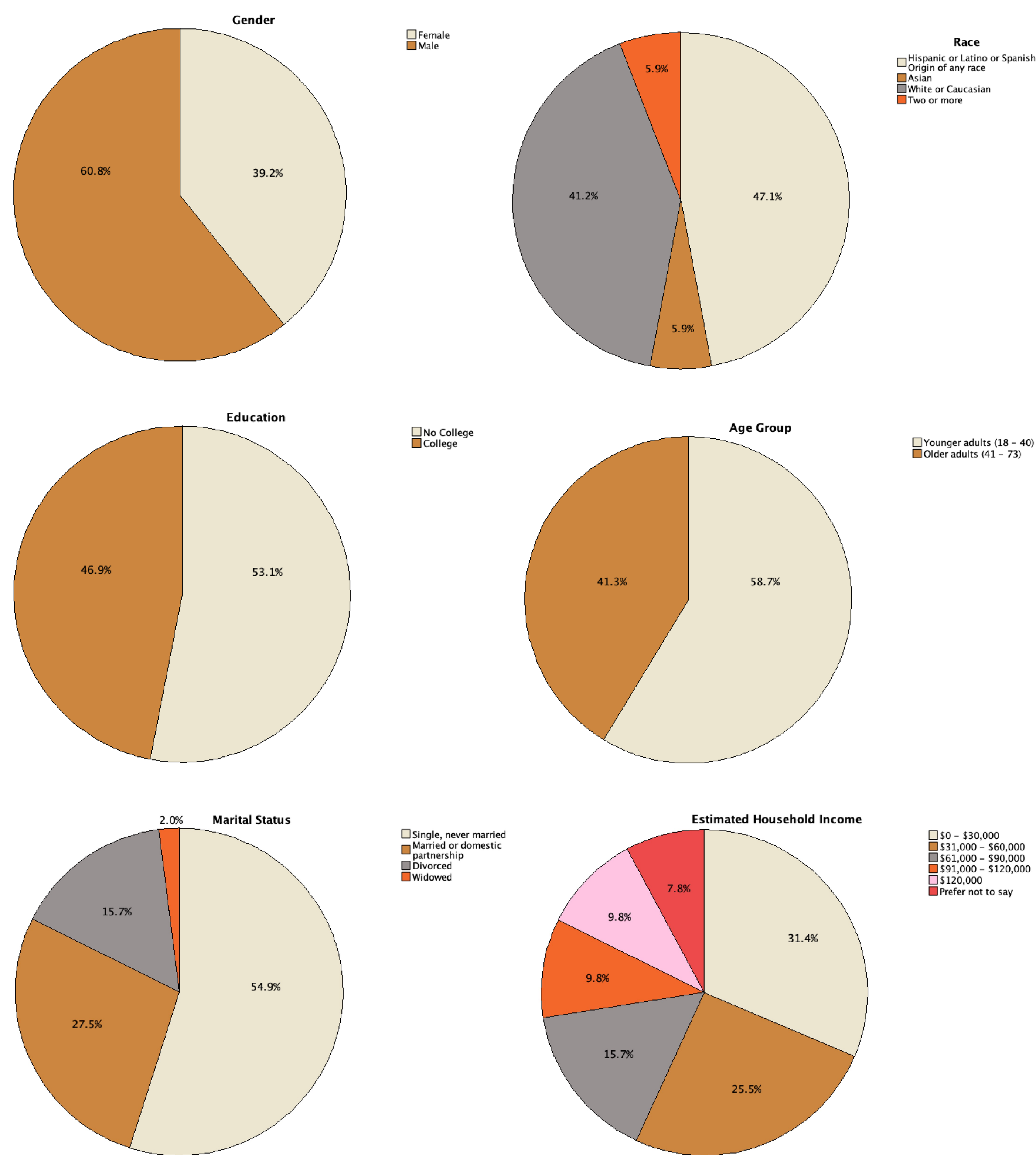
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## Abstract

Dental patients suffering from dental anxiety tend to avoid the dentist which leads to a decline in oral health and more severe health problems. Dental anxiety is not well understood due to research gaps in which underlying factors affect dental anxiety levels. It is important to understand which factors increase dental anxiety to help create a more comfortable dental office experience for patients that will enable them to receive the vital dental care they require. **This study hoped to identify the factors or characteristics that are most related to high dental anxiety and hypothesized that dental anxiety levels will vary based on different demographics.** This study found a strong negative correlation between previous experiences with dentists and dental anxiety, a strong positive correlation between frequency of pain and dental anxiety, and significantly higher anxiety levels for patients with state-funded insurance than patients with private insurance. **These results indicate that pain anticipation, negative previous experiences, and the financial burden of healthcare can increase dental anxiety, which points to a larger overall problem with access to dental care.**

## Participant Demographics

50 patients at a dental office in Salem, MA, were surveyed.



## Results

Figure 1

Correlation of Dental Anxiety Score and Overall Previous Experience with Dentists

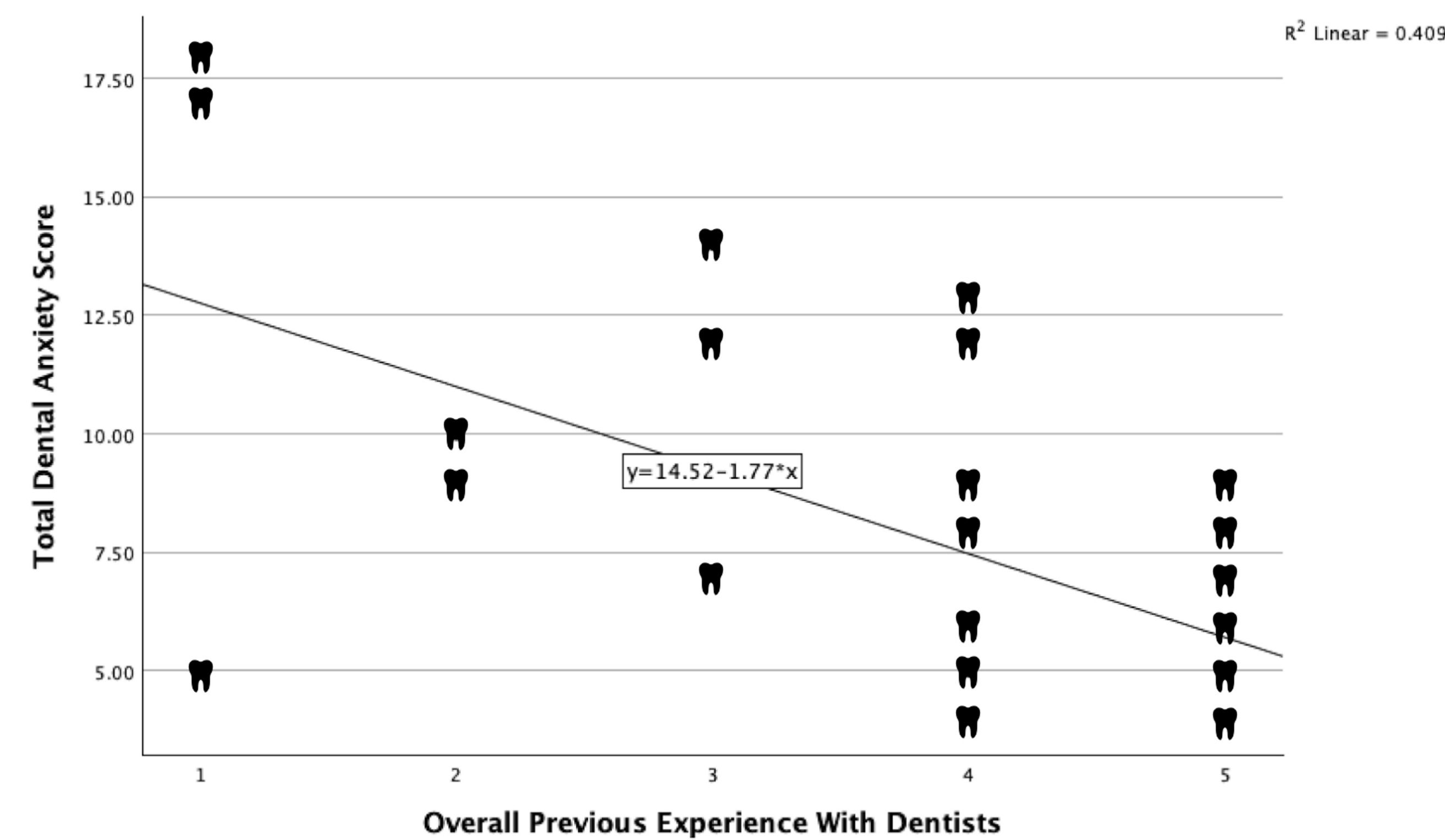


Figure 2

Correlation of Total Dental Anxiety Score and Frequency of Pain and Discomfort

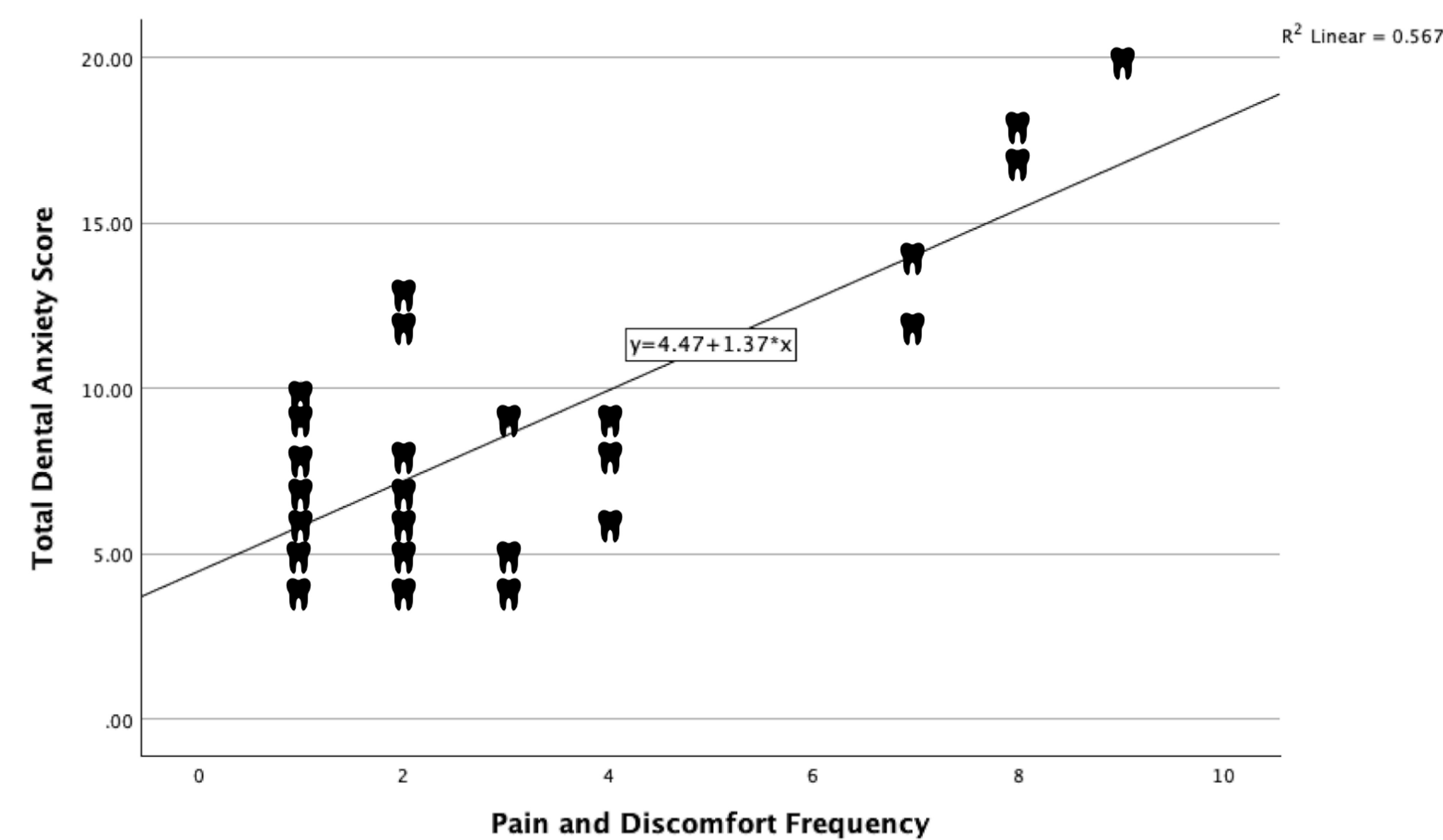


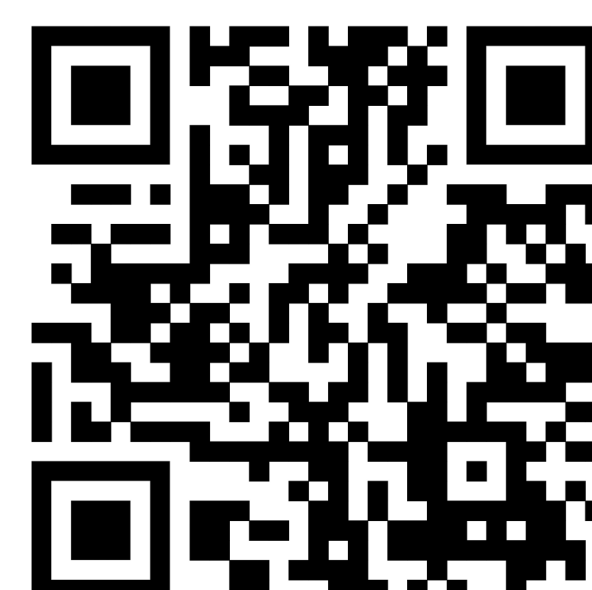
Table 1

Means and Standard Deviations of DA Scores by Dental Insurance Type

Dental Insurance Type	Mean Dental Anxiety Score (SD)
Private	6.15 (2.32)
Not Private	9.56 (5.12)

Note. There were 38 participants in this question.

Link to full research paper:



Link to dental anxiety survey:



## Method

### Materials

This study used an anonymous Qualtrics survey that collected demographic information and asked patients to self report their oral health experiences. The survey also included the Revised Dental Anxiety Scale (DAS-R) (Corah, 1969), which allowed me to measure patient anxiety levels. The DAS-R asks patients to rate their anxiety levels in response to four different dental office scenarios on a 5-point Likert scale.

### Procedure

Patients were approached in the waiting room and asked to fill out the survey using a QR code. After indicating informed consent, the patients completed the survey in the waiting room, were compensated with a gift card to Starbucks, and were thanked and debriefed for their participation. A Total Dental Anxiety score from 1-20 was calculated for each participant.

## Conclusions

- Negative correlation between total DA score and previous experience with dentists may indicate that **having a negative experience with a dentist can lead to the development of anxiety.**
- Positive correlation between total DA score and how often patients experience pain or discomfort may indicate that **increased oral health issues and anticipation of further pain can lead to higher anxiety** about getting a diagnosis and what that could mean for one's physical and financial health.
- Significant difference in anxiety levels between patients with private insurance and patients with state-funded insurance supports anxiety induced by financial burden

## Applications/Implications

- Dental anxiety is likely connected to experiential and financial factors**; lack of differences in anxiety levels between demographics like race may indicate that anyone is subject to dental anxiety.
- There is a need for improvement in the way that some dentists treat their patients** in order to decrease the likelihood that someone will have a negative experience leading to developing dental anxiety.
- Financial factors play a role in the development of dental anxiety.
- Access to affordable care is an ongoing issue in the healthcare system in the U.S., and the results of this study only serve to support that **increasing access and decreasing costs of care can increase the likelihood of patients seeking out vital healthcare.**

## Limitations

- Excluded high anxiety patients, small convenience sample in one office that decreases generalizability and reliability