

**ASSESSMENT OF DENTAL ANXIETY IN PATIENTS RECEIVING REMOVABLE  
COMPLETE DENTURE TREATMENT****Dr. Reena Mittal<sup>1</sup>, Dr. Basobi Bezbora<sup>2\*</sup>, Dr. Shivangi Gupta<sup>3</sup> and Dr. Aniket Mone<sup>4</sup>**Professor<sup>1</sup>, PG Student<sup>2</sup>, PG Student<sup>3</sup>, PG Student<sup>4</sup>

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**ABSTRACT**

**Aim:** The purpose of the survey was to gauge the degree of anxiety experienced by patients receiving total denture therapy in order to identify the factors contributing to the patient's uneasiness both during and after treatment. **Materials and Method:** After gaining informed consent, a reliable pre-structured questionnaire with ten questions was given to the patients receiving complete denture treatment. The survey's questions were completed and collected from 150 patients undergoing complete denture treatment. The data obtained was analysed statistically and subjected for comparative evaluation. **Results:** The following were some of the factors that caused anxiety: materials employed – 33%, view of the instruments – 26%, dental chair – 22%, other factors – 19%, denture breakage – 7%, ill-fitting prostheses – 50%, repeatedly taking out and putting in dentures -35%, consuming the denture - 2%. Anxiety-inducing factors included: gagging while impression making – 43%, fullness of mouth – 31%, swallowing the impression material – 14%, breathlessness – 12%. 91% Patients expressed comfort in having the process outlined in advance., 97% patients making more indications in a language they can understand. **Conclusion:** Anxiety and denture satisfaction are significantly correlated. When a patient with dental anxiety is properly identified and diagnosed, many potential issues can be greatly reduced, reducing stress for the dentist as well as the patient.

**KEYWORDS:** Anxiety, Geriatric dentistry, Patient satisfaction.**INTRODUCTION**

The level of apprehension a person has over dental care is known as dental anxiety. In the edentulous population, dental behaviour, dental satisfaction, and complaints have all been found to be significantly impacted by dental anxiety.<sup>[1,2]</sup> Poor patient-dentist interactions have also been linked to anxiety, as have expectations based on memories of unpleasant experiences.<sup>[2]</sup> Older patients require acceptance and empathy therefore dental professionals are required to address their emotional requirements in addition to their oral ailments.<sup>[3]</sup>

Dentists faced numerous challenges when working with patients who were edentulous especially when fabricating complete dentures. The term "edentulism" refers to an organ insufficiency that primarily affects the elderly and has a significant negative effect on their quality of life. Psychological variables are the main reason that could be causing the patient's inability to adjust to the dentures. Anxiety, depression, and fear can have a major influence regarding the denture's adjustability.<sup>[1]</sup>

If the clinician is aware of his patient, he or she can also take measures to help alleviate the anxiety during the operative procedure.<sup>[2]</sup> Patient satisfaction with complete denture has never been easy to achieve. Short questionnaires about emotional aspects, personality qualities, denture quality, and the dentist-patient relationship are typically used to gauge patient satisfaction.<sup>[4]</sup>

In the population of edentulous people, dental anxiety has typically been found to have a considerable impact on dental behaviour, dental satisfaction, and complaints. Thus, this short study aimed to assess the sources of emotional turmoil expressed by patients undergoing complete denture fabrication treatment.

**MATERIALS AND METHODS**

The survey was a cross-sectional study using a questionnaire was conducted among 150 patients in the prosthodontics department undergoing full denture therapy.

With ten questions and a straightforward checkbox structure, a standardised, appropriate, and reliable questionnaire was created and verified. The patients receiving complete denture treatment were given this questionnaire to help find out the issue for their worry throughout and following treatment after obtaining a informed consent. The variables that were part of the survey were.

- Identify the patient's level of comfort while seeing the dentist, as well as the main source of their discomfort.
- Evaluate a patient's previous experience wearing complete dentures and their level of comfort wearing complete dentures.
- Analyse the sources of the anxiety in relation to the complete dentures' handling and use as well as the causes of anxiety during impression-making.
- Take into account additional barriers that the patient faces in receiving therapy, such as lengthy appointments, limited resources, communication difficulties and language barriers.

#### Inclusion Criteria

- Patients receiving complete denture treatment
- Patients planning to receive complete denture treatment

#### Exclusion Criteria

- Patients who were partially edentulous.
- Patients who declined to take part.

- Patients who required an interpreter to communicate their thoughts because they could not understand the local language.
- Patients having a history of psychological issues.

#### STATISTICAL EVALUATION

After the patients completed the questionnaire, the data was collected and entered into Microsoft Excel, tables, charts, and graphs of the data were created and percentages were used to assess it.

#### RESULTS

There were 60 female patients and 90 male patients among the 150 edentulous individuals surveyed. Data obtained from the survey questionnaire with respect to different aspects of a complete denture treatment were compiled and calculated in the form of percentages to the total 150 surveyed patients.

#### House classification that the operator will assess

Out of 150 patients 64% were Philosophical, 23% patients were Exacting, followed by 11% Hysterical and 2% were found to be Indifferent.

#### Question 1. Are you comfortable while visiting a dentist

According to the data, just 88.6% of patients were at ease discussing seeing a dentist, while 11.4% expressed anxiety. [Figure 1].

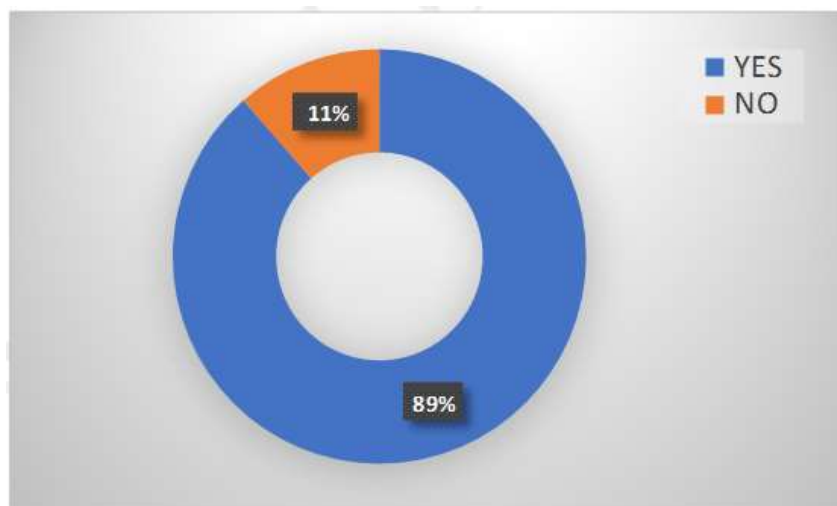


Figure 1: Pie chart showing patients comfortable while going to see a dentist.

#### Question 2. On a scale from 0 (not at all anxious) to 10 (extremely anxious), rate your level of anxiety.

Using the Visual Analogue measure–Anxiety (VAS–A) measure, which ranges from 0 (not at all nervous) to 10 (extremely anxious), patients were asked to rate their level of anxiety. The data displayed a dispersion across different ranges, primarily between score 0 with 40.6% patients, score 2 with 21.3% of the total, and score 7 with 8.6% of the total [Figure 2].

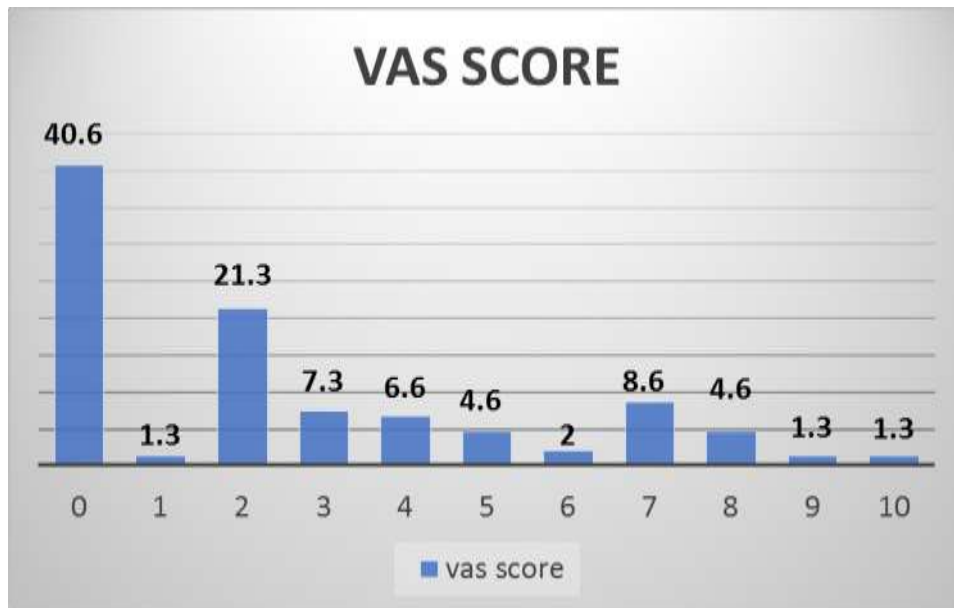


Figure 2: Bar graph showing anxiety level while visiting dentist (visual analog scale–Anxiety score).

**Question 3. Have you ever had a complete set of dentures made before?**

Out of the 150 total patients, 55% were previous denture users and 45% were having their dentures fabricated for the first time. [Figure 3].

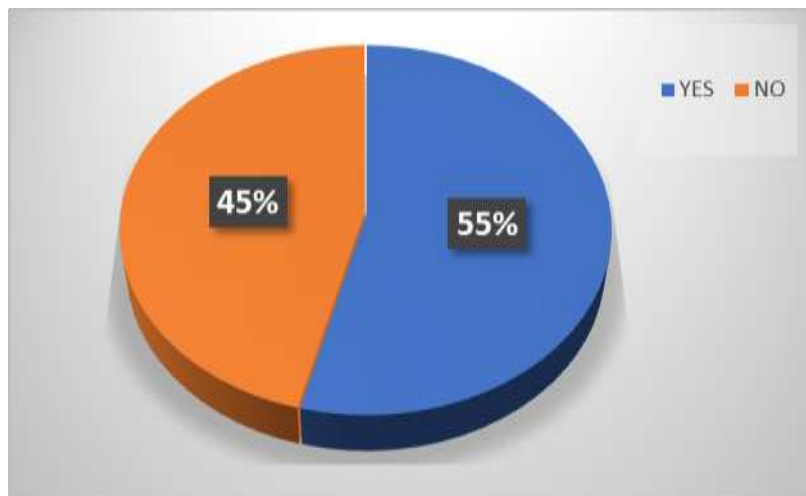


Figure 3: Pie chart showing previous denture users.

**Question 4. Are you comfortable using a complete denture (For old denture wearer patients)**

The idea of using a complete denture was not preferred by 46% of patients, while 54% of patients who were already wearing removable complete dentures expressed readiness to use one. [Figure 4].

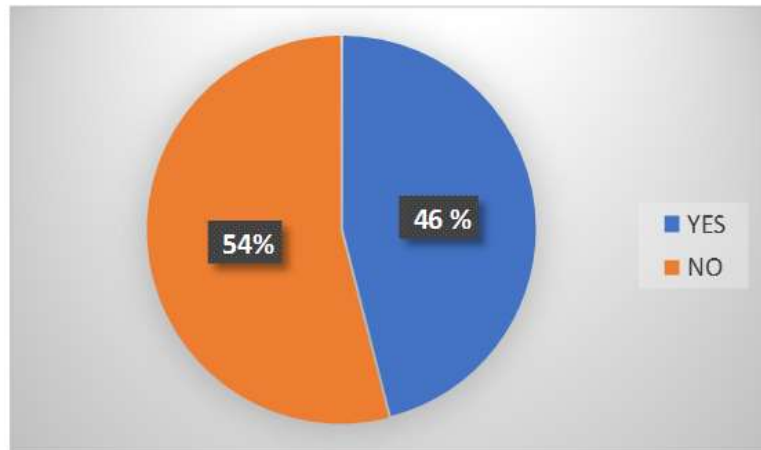


Figure 4 : Pie chart showing patients comfortable with the idea of using a complete denture

**Question 5. Which of the following describes your level of discomfort?**

Out of the four alternatives, the majority of patients experienced anxiety due to the various materials used during the treatment in 33% of all patients, followed by

the sight of instruments in 26% of all patients. Anxiety caused by dental chairs affected 22% of patients. Other variables, like smell and airtight sight, accounted for 19% of the patients. [Figure 5]

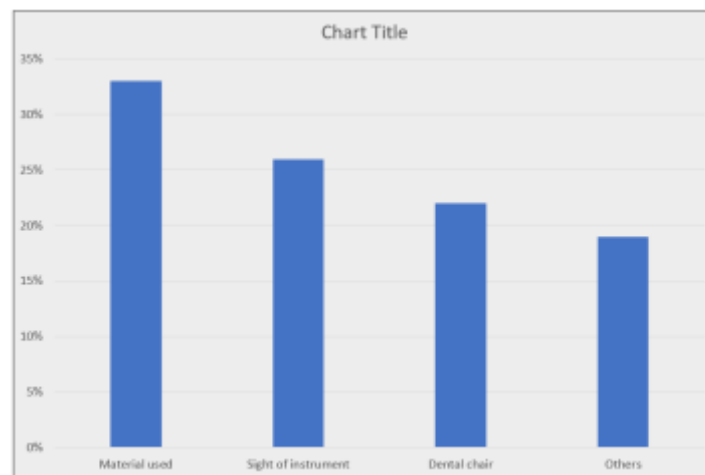


Figure 5: Bar graph showing reasons for anxiety in a dental setup.

**Question 6. Which of the following options makes you most uncomfortable?**

Of the 150 patients, 50% were afraid that their prosthesis would not fit properly, 35% disliked the thought of

having to wear and take off their entire denture repeatedly, 7% were afraid that their denture would break with use, and 2% were afraid that they would swallow their denture. [Figure 6].

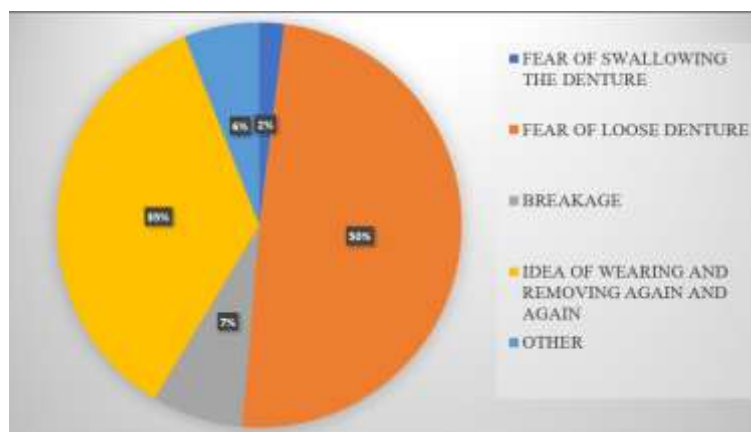


Figure 6: Pie chart showing reasons provoking anxiety with the use of complete dentures.

**Question 7. Factors aggravating anxiety while making impression for complete denture**

Sense of vomiting while making the impression was the primary reason for anxiety in 43% patients. Fullness of

the mouth comprised 31% patients. Fear of swallowing the impression material constituted 14% patients while breathlessness was the main factor aggravating anxiety among 12% patients [Figure 7]

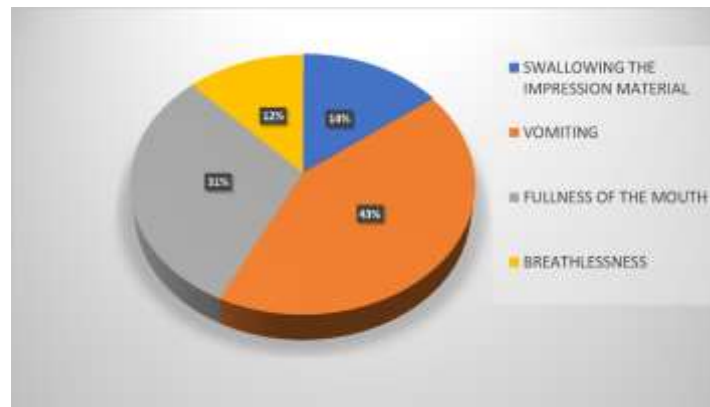


Figure 7: Pie chart showing factors aggravating anxiety while making impressions

**Question 8. What could prevent you from receiving complete denture treatment?**

56% of patients said that the number of visits was significant, while 27% said the length of time spent at

each consultation was crucial. 10% of patients had considered treatment costs as a factor and 7% of patients were affected by other variables including travel distance. [Figure 8]

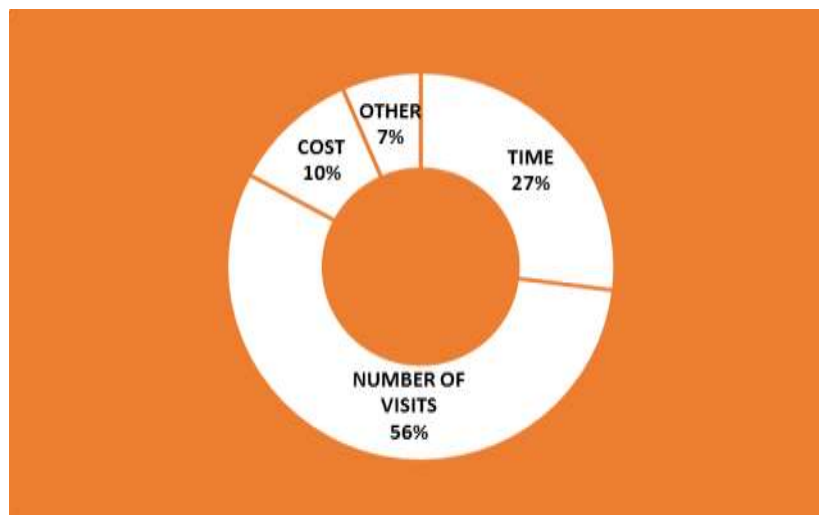


Figure 8: Pie chart showing factors preventing the patient from undergoing complete denture treatment.

**Question 9. If the dentist goes over the whole course of treatment with you in advance, will you feel more at ease?**

91% of patients felt that having the dentist describe the full treatment to them before beginning it made them feel more at ease, whereas 9% of them dismissed the idea as irrelevant to them.

**Question 10. Do you think it matters if the medical professional can communicate in your language?**

Only 3% of patients believed that it is not crucial for the doctor to understand their language whereas 97% of patients believed that it is important for them that the doctor should understand their language.

**DISCUSSION**

This cross-sectional study was done to gain insight into the mental state of 150 elderly edentulous patients who had reported to the department of Prosthodontics for the fabrication of Complete denture. A patient's willingness to accept the type of treatment they require is influenced by dentist ability to completely understand them as individuals.

Dental anxiety, or fear associated with the idea of visiting the dentist, can be detected at the first patient-dentist interaction by asking about past experiences. It can support the diagnosis and make it easier to classify these people as mildly, moderately, or severely anxious (dental phobics).<sup>[6]</sup>

In 1950, M. M. House devised a classification system for the patient's psychological responses to becoming edentulous and adapting to dentures into the following four types: philosophical mind, exacting mind, hysterical mind and indifferent mind.

Philosophical patients understand the need for complete dentures and are prepared to rely on the dentist's guidance for diagnosis and treatment. They are also intelligent, calm, and collected in a variety of scenarios. When the dentist advises them to change their dentures, they heed his advice. The most beneficial mentality for accepting dentures is the philosophical kind.

Exacting patients usually have bad health, refuse the dentist's advice, have misgivings about the dentist's skills, and even attempt to control the course of treatment. They want extreme measures and assurances regarding the course of treatment.

Patients that are hysterical tend to be highly anxious, agitated, and emotionally unstable. Their prognosis is frequently not good. The patient has to be informed that many of his problems are not related to his dentures and that his illness is mostly systemic.

Patients who have been coerced into receiving treatment by family members or minors are considered indifferent. They will not comply, are unmotivated, uninterested, and inattentive to instructions. They also tend to blame the dentist for their bad oral health.<sup>[1]</sup>

When it comes to edentulous individuals' comfort with their dentures, anxiety is a major factor. The factors included are past denture experiences, education, occupation, medical history, age, gender, the length of edentulousness, the age of previous dentures and the number of complete dentures.<sup>[7]</sup>

According to Agras et al dental anxiety is the fifth most common cause of anxiety.<sup>[10]</sup> Lahmann C et al<sup>[11]</sup> in his study stated that dental anxiety is a significant cause of poor dental health. In particular, the clinical effectiveness of precisely planned treatments is of relevance because patients frequently choose nonpharmacological interventions. Gjengedal H et al<sup>[12]</sup> had done a study to explore variables that might influence self-reported oral health and denture satisfaction in partially and completely edentulous patients. The results of his study suggested that, there are differences between fully and partially edentulous individuals in terms of characteristics linked to and predictive of both self-reported oral health and denture satisfaction. In his research, Srivastava R<sup>2</sup> found that the dental anxiety scale for edentulous patients was a valid tool for assessing dental anxiety and that it was unaffected by the patient's age or the duration of their edentulousness. Moreover, there was a significant correlation between the denture satisfaction score and anxiety. According to Prasad Ak<sup>1</sup> research, it is more important than ever to

comprehend patients' expectations and reduce their doubts, anxieties, and worries through effective communication. A thorough awareness of the patient's mental state will enable the dentist to treat full dentures with greater patient-friendliness.

Even those who are not apprehensive can feel fear from a dental setup. According to the results of the current study, the majority of patients anxiety was triggered by various materials, followed by sight of instruments. Therefore, it could be beneficial to keep tools out of the patient's line of sight that are not necessary for a certain technique, such as the airtor that are not needed while making an impression.

Most common fear among patients was fear of ill-fitting prostheses followed by the resentment of the idea of wearing and removing the complete denture again and again and the fear of breakage of the denture with use. Fear of swallowing the denture also constituted reason of fear in many of the patients. According to studies, people getting their first set of dentures have a harder time getting used to them in terms of function, comfort and aesthetics than people who have worn dentures before. As patients gain accustomed, their level of neuromuscular control increases.<sup>[4]</sup>

Patients typically feel more at ease communicating their thoughts, worries, uncertainties, and fears about any part of the dental treatment in their own language, according to Prasad AK et al. Patients thought it was critical that the physician speak their language. A physician may misinterpret symptoms when they don't understand specific terminology used in the patient's language. It could be beneficial to make an attempt to learn important definitions from the local tongue so that patients can understand the procedure.<sup>[1]</sup>

According to Razak PA<sup>[8]</sup> et al the vast majority of patients said that having the dentist describe the full procedure to them before beginning it made them feel more at ease. It may prove useful to explain to the patient in a language they can understand, why they should use a particular material or what to anticipate when using it. Before beginning a particular procedure, patients should be informed about the use of instruments such the dental chair, impression trays, and procedural materials in order to get them comfortable with them. New instruments and materials can be introduced using the Tell Show Do method.<sup>[8]</sup>

The best way to describe dental treatment planning is with a procedure and an appointment schedule. Rather than giving the patient an appointment card, you may give them a calendar for the month with the appointments marked. In addition to words, symbols could be used to indicate the sort of appointment (for instance, a denture could be used to indicate an appointment for a denture adjustment).<sup>[9]</sup>

This study is significant from a clinical standpoint because it shows the origins of the mental upheaval (fear, worry, and despair) that patients experiencing tooth loss and total edentulism feel. Dentists need to have a thorough grasp of their patients since this understanding helps the patients accept the necessary treatments.

The present study has few limitations as it did not include correlation between other important factors such as age, gender, presence of any other systemic disease, socio economic status of the patients. For more understanding further research into the role of dental anxiety with respect to dental behaviour and dental satisfaction in edentulous populations should be done. Moreover, larger sample sizes should be used in future research to achieve more accurate results. Hence more studies are required with larger sample size Thus, helping extremely anxious patients overcome their dental fear is so difficult, but if successful, it will lead to an improvement in their oral health and general well-being living conditions.

### CONCLUSION

Denture satisfaction and anxiety have a substantial relationship. Many issues that may occur can be considerably reduced with proper recognition and diagnosis, thus preventing stress for both the dentist and the patient. Elderly dental treatment will be significantly improved by implementing appropriate anxiety reduction strategies.

### AUTHOR CONTRIBUTIONS

All authors contributed to the present study. Dr Reena Mittal and Dr Basobi Bezborah contributed to the conception and design. Dr Basobi Bezborah, Dr Shivangi Gupta and Dr Aniket Mone contributed to sample collection and data analysis followed by interpretation. Writing—review and editing was contributed by Dr Reena Mittal and Dr Basobi Bezborah. All authors gave final approval and agreed to be accountable for all aspects of the work.

### CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

### DATA AVAILABILITY STATEMENT

Data available on request from the authors.

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