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Letter to the Editor

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## Dental Anxiety Associated with Visiting Dental Clinics before and after Getting COVID-19 Vaccine

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The novel Coronavirus disease, COVID-19, caused by Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), rapidly progressed into the global pandemic since the first case was detected in Wuhan, China in December, 2019 [1-5]. As of February 25, 2022 there are about 431 million cases and over 5.93 million deaths worldwide [6]. The most affected countries include United States, India and Brazil with about 78.8 million, 42.9 million and 28.6 million cases, and about 0.95 million, 0.51 million, 0.65 million deaths, respectively [6]. COVID-19 has negatively affected the lifestyle and health of people along with the economy throughout the world [7]. A rigorous hunt for an effective drug against the SARS-CoV-2 did not result in any breakthrough contenders [7]. As the number of COVID-19 patients continue to increase and different variants of coronavirus are detected globally, discovery, assessment and interpretation of immune response to SARS-CoV-2 infection became essential. Several vaccine candidates were developed, tested and administered throughout the world to battle increasing cases and deaths worldwide [7,8].

SARS-CoV-2 is a swiftly spreading virus that predominantly transmits through respiratory droplets that can be inhaled from an infected person by a healthy person, and by sneezing and coughing [9]. As the leading mode of transmission for coronavirus is through respiratory droplets, dental clinics are at the forefront in terms of potentially contracting the coronavirus, because most dental procedures such as, surgical extractions, root canal treatments, ultrasonic scaling, etc., produce aerosols [10]. This, in addition to, high rate of transmission and infectivity of coronavirus, led to heightened anxiety among patients when visiting or planning to visit a dental clinic. Keeping this in mind, vaccinations are deemed the most valuable tool against SARS-CoV-2, to limit its transmission. In the past, vaccines have been known to control the spread of several viruses [11]. Thus, so as to manage the anxieties related with contracting COVID-19, vaccinations have been advised by several organizations to battle mortalities and morbidities related to SARS-CoV-2 infection. In this editorial, we focused on the study by Lal et al., titled "Comparison of dental anxiety while visiting dental clinics before and after getting vaccinated in midst of COVID-19 pandemic" [12].

In this study by Lal et al., the authors intended to evaluate the anxiety levels of patients before and after getting vaccinated while visiting dental clinics amidst the COVID-19 pandemic [12]. We commend the authors for a well-written, clear and concise manuscript that has an excellent study design with good confidence of interval and sample size.

In this study, the authors used a multi-part questionnaire including demographics, contracting coronavirus, dental history, and dental anxiety before and after getting vaccinated. Anxiety was measured utilizing a modified dental anxiety scale (MDAS). The adult patients (>18 years) were included in the study, and children and non-vaccinated adults were excluded. Out of 400 participants, a response rate of over 88% was reported. 71% of respondents did not test positive for COVID-19, and 54% reported to be not suffering from any COVID-19 related symptoms. 25% stated that dental clinics are high risk environment for contracting COVID-19. The results reported are in accordance with other published study, where individuals suffered from distress of contracting COVID-19 while seeking dental care [13]. A statistically significant difference ( $p < 0.01$ ) was also

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### Authors' contributions

The participation of each author corresponds to the criteria of authorship and contributorship emphasized in the [Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals of the International Committee of Medical Journal Editors](https://www.icmje.org/). Indeed, all the authors have actively participated in the redaction, the revision of the manuscript, and provided approval for this final revised version.

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### Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

reported for comparing MDAS scores of respondents before and after getting vaccination. These results were in accordance with another published study, where participants reported higher level of anxiety whilst visiting dental clinics [14]. After the patients were vaccinated, a reduction in levels of anxiety was reported by individuals who earlier felt higher anxiety levels prior to vaccination. This was in accordance with another study which reported significant decline in anxiety and depression of individuals post vaccination [15]. As also reported by Lal et al., this study does have some limitations, including, presence of patients who were not scared of contracting the coronavirus, thereby, potentially affecting the anxiety scores; and risk of bias due to utilization of convenience sampling method. However, we believe that the pros of this study outweigh the cons and/or limitations. In summary, the authors have provided a well thought-out paper with vital real world evidence. Despite reduction in anxiety levels led by COVID-19 vaccination, we still recommend unvaccinated people to get vaccinated; implementation and utilization of other preventive measures such as use of personal protective equipment, both by dentists and patients; and adherence to other guidelines issued by government and other regulatory agencies to mitigate the chances of contracting COVID-19, as vaccines do not entirely eliminate the odds of contracting COVID-19.

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