



Fear and Anxiety Among Young Adults of General Population on Visit to the Dental Clinic During the Covid-19 Pandemic - A Web Based Study

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Abstract

Background: This study was performed to evaluate the number of people willing to visit the dental clinic during the pandemic with dental pain/ routine check-up. There is also evaluation about the number of people willing to visit the dental clinic during the pandemic with vaccination or without vaccination. Assessment of fear and anxiety levels of the participants is also seen. It also reveals if any participants experienced any pain during the Covid-19 pandemic and what all necessary steps were taken by the subjects to reduce the intensity of the pain or any other dental issues **Methods:** Data was collected from 200 young adults around the age group of 18-40 regarding the fear and anxiety to visit the dental clinic during the COVID-19 pandemic through a web-based survey. Online forms were circulated across various online and social media platforms and subjects willing to participate in the survey were asked to fill the form only after signing the informed consent. Participation was entirely voluntary. Anxiety levels among the participants were determined using Hospital anxiety and depression scale (HADS) and analyzed. **Results:** It is remarkably evident that 48% of the population were definitely anxious about the sanitization and sterilization protocols followed in the dental clinic. Whereas almost 49.5% were hardly anxious on the day they were tested positive. 59% were seen to be definitely anxious about the situation of the nation. 33.5% were hardly anxious about re-infection. **Conclusion:** The present study thereby shows that the anxiety levels were comparatively more considering the sanitization and sterilization protocols in particular rather than visiting the dental clinic. This study also helps to identify the source of information from where the subjects were informed about the covid-19 pandemic. This study also brings into account whether the participants are vaccinated, tried any home remedies or painkillers to relieve the dental pain during the pandemic.

Keywords: COVID-19, fear, anxiety, dental clinic, young adults.

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Introduction

Stresses associated with dental procedures, in which the stimulus is vague, anonymous, or not

present at the moment is usually termed as dental anxiety.^[1,2] Patients had usually set off in fear and trepidation due to the outbreak. Age, sex, educational qualification, and

socioeconomic position can also be accounted for dental anxiety among the populations.^[1,3,4,5] Many of the patients had been petrified of some of the stimuli involved with dental therapy, which affected the dentist patient relationship.^[6,7] In December 2019 COVID – 19 came under attention. By March 2020 it was declared as a pandemic by World Health Organization (WHO). There was a ruinous spread in many countries worldwide due to the unfathomable cases of pneumonia which appeared in Wuhan, China.^[8] Fallacious arguments were perceived about the disease behaviour, geographic range, number of infected and actual mortality rate.^[9] Other factors which added and collided with those include fear of uncertainty, stress, government and individual's financial distress, high rates of infection and death are the various aftermath of COVID- 19 pandemic.^[10] There was not only sense of disquietude and perturbation among the health care workers but also people seeking dental treatment^[11,12,13] There was state of uneasiness and apprehension among the general population to seek any kind of dental treatment and visit the dentist.^[14,15] Stringent protocols were implemented by the government to limit the spread of this contagious disease. Due these unrivalled rules and regulation which included quarantine, social distancing, lack of social interaction added to prompt effects on psychological health.^[16,17] People previously suffering from any kind of psychological disorder or any kind mental issue had a deleterious effect due this pandemic.^[18] There was also inevitable changes due to the pandemic which included closure of schools and colleges, restrictions in public places, no family gathering and also colossal changes in work routine.^[19] Taken together, available data suggests that prevalence of fear and anxiety has risen in general population to visit the dental clinic during the COVID-19 pandemic. Proper assurance should be given about the sanitization protocols that have been followed by the dental clinic. Virulence and lethality rate are the two main factors which cause fear and anxiety among the population.^[20-22]

Materials and Methods

A. Participant selection

N=200 Non- hospitalized COVID 19 affected and unaffected population over the past 3

months. This also includes non-hospitalized vaccinated and non-vaccinated COVID 19 affected and / or unaffected population are selected. A web-based questionnaire survey is conducted regarding the fear and anxiety using Dental Anxiety Scale (DAS). Informed consent shall be obtained from the participants. Ethical clearance has been obtained from the institutional ethical committee.

B. Inclusion and Exclusion Criteria

Age group between 18-40 years^[28] with both male and female population are included. Non-hospitalized COVID 19 infected and uninfected population over the past 3 months. Both vaccinated and non-vaccinated COVID-19 affected population are included. Presence of any systemic disease, sleep disorders, under sleep medication, psychological disorders or under any psychotropic drugs were excluded from the study. Pregnant and lactating mothers are also excluded.

C. Anxiety Measurement

Hospital Anxiety and Depression Scale (HADS) is used to measure the dental anxiety level of the participants. (Table 1)

Table 1: Hospital Anxiety and Depression Scale distribution

Score	Depression severity
0-7	Normal
8-10	Borderline

Since its a web-based survey an appropriate google form link was created to circulate among the people and intended participants answered the questions by clicking the link. The link was circulated through social media platforms.

Statistical Analysis

Association will be estimated by Chi square test. Anxiety index before and after will be estimated by paired t test. A statistical package SPSS version. 23.0 will be used to do the analysis. $p < 0.05$ will be considered significant.

Results

Out of 200 participants between the age category of 18 to 40 years, the majority of the general population were females (76%) and the remaining (24%) were male participants (Table 2). No relevant medical history was observed in majority of the population (86%), asthma was observed in (5%) of the population, diabetes

mellitus was observed (1%), (2.5%) of the population showed high and low blood pressure. Remaining (8%) of the participants had other systemic disorders. (Table 1,2).

Table 2: Sex wise distribution of the participants in the study

	Female	Male
Number of participants	152	48
Percentage	76%	24%

Almost 58% of the total participants were medical professionals, 1.5% were paramedical, 3.5% were self-employed and the remaining 37% fell into other category (which included students, architecture and individuals from other

profession). However according to the Hospital anxiety and depression scale majority of the population, that is almost 49.5% were hardly anxious on the day they were tested positive, almost 20% were not quite anxious and 39% was definitely anxious about being tested positive and remaining 11% was only a little anxious. 43.5% of the population did not show any post covid symptoms however 4.5% of the population showed post covid symptoms and there was lack of uncertainty in 11% of the general population.

Table 3: Participants with systemic diseases

	Number of participants (out of 200)	Percentage
Diabetes mellitus	2	1%
High or low blood pressure	5	2.5%
Asthma	5	2.5%
No relevant history	172	86%
Others	16	8%

Table 4: Anxiety levels of participants in various situations

Anxiety level of the participants	Definitely as much (%)	Not quite so much (%)	Only a little (%)	Hardly at all (%)
On the day they were tested positive	19.5	20	11	49.5
About the situation of the nation	59	26.5	10.5	4
About the sanitization and sterilization of the dental clinic	48	26	16.5	9.5
Re-infection	24	23.5	19	33.5

It is also evident that almost 59% of the population were definitely anxious about the situation of the nation, whereas 26.5% were not so anxious about the situation of the nation and 10.5% were only a little anxious and 4% were hardly concerned about the situation of the nation. Moreover, it is also perceptible that almost 48% were definitely anxious about the sanitization and sterilization protocols followed in the dental clinic and 26% were not quite anxious and 16.5% only a little anxious and 9.5% were hardly anxious. It is also clear that almost 33.5% hardly anxious about re-infection,

24% fall under the category of definitely anxious, 19% were only a little anxious and the remaining 23.5% were not quite anxious about being re-infected with covid-19. (Table 4) From the questionnaire results it is also evident that majority people consider it safe for a dental visit during the covid-19 pandemic. However, only 12% of the population have experienced dental pain. Thus, 76% of the participants have not tried any home remedies for the dental pain or any other dental issues while the remaining 24% of the have tried home remedies. (Table 5)

Table 5: Dental issues faced by participants

	Yes (%)	No (%)
Tried any home remedies for dental pain during the Covid-19 pandemic	24	76
Consumption of pain killers for dental pain without visiting the dental clinic	14.5	85.5
Progression of initial dental symptoms to abscess or any other chronic conditions	8	92

Discussion

The present study revealed that a considerable number of participants were more anxious about the situation of the nation rather than visiting the dental clinic during the covid-19 pandemic. The participants were also anxious about the sanitization and sterilization protocols followed in the dental clinic which correlates with study done by Majeed MM et al., [23] where he has reported that fear and anxiety have overstepped boundaries among the participants to visit the dentist and seek dental help due to sanitization and sterilization protocols. The results also show that the majority of the population are females. Salim Z et al., [24-26] reported that the rate of spread of this contagious disease is more from the dental hospitals, therefore only emergency treatments are performed. This was done to provide treatment to appointed and emergency patients to avoid crowding of the people in the dental clinic; this contradicts with present study as the population is willing to visit the dental clinic for dental issues during the covid-19 pandemic. Studies by Warsi et al., and Khurshid et al., [27,28,29] also mentioned that saliva could also be a possible spread of infection, thus it was mandatory to maintain proper sanitization of the dental clinic and also regular fumigation should be implemented into the sterilization system which correlates with the present study as there is anxiety among the patients about the sanitization and sterilization protocols. Corbett GA et al., and Hossain N et al., in their studies stated that earlier women were not worried about their health but during the pandemic the females were comparatively on the anxious side than the males [30,31] this contradicts with the present study as there is no difference in the anxiety levels seen between the male and female population. In our study, the majority of the participants are female subjects which portrayed a slightly anxious side toward the sanitization protocols followed in the dental clinic. But overall, the anxiety level for visiting the dental clinic was comparatively on the lower side. The participants were more anxious about the situation of the nation. The anxiety level of the participants is also observed on the lower side on the day they were tested positive for Covid-19.

Conclusion

The present study thereby shows that the anxiety levels were comparatively more in the sanitization and sterilization protocols in particular when visiting the dental clinic. This study also helps to identify the source of information from where the subjects were informed about the covid-19 pandemic. [32,33] This study also brings into account whether the participants are vaccinated, if they tried any home remedies or painkillers to relieve the dental pain during the pandemic.

Conflict of Interest: None

Source of support: Nil

Ethical Clearance: Obtained

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