

# DENTAL ANXIETY AMONG GENERAL POPULATION OF SHEIKHUPURA

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## ABSTRACT

*Study was done to identify and measure dental anxiety among general population visiting OPD of Faryal dental hospital, District Sheikhpura.*

*An observational cross sectional study was conducted at Faryal dental hospital, from: Sept, 2016 to Aug 2018. A total of 241 adults were recruited or invited to participate in this study. The venue was the OPD of Faryal dental hospital. The exclusion criteria included all children below 6 years of age or / and respondents who denied participation or unwilling, whereas adults of both gender visiting OPD with any of the dental problems were included in this study. The participants underwent face-to-face interview. A well-tested Modified Dental Anxiety (MDAS) scale was used to measure the dental anxiety scores in our study.*

*The mean age of the participants was 26.50±11.93. Subjected included a total of 133(55.18%) males and 108(44.81%) females. Out of these, 62(25.72%) were married, 171(70.95%) were unmarried and 1(0.41%) were having complicated status. The mean MDAS score of study subjects was 11.68±4.07. Dental anxiety was highly prevalent among our study subjects and majority of the individuals were having moderate DA level.*

*Based on these study findings, it is concluded that dental anxiety (DA) is highly prevalent among population of Sheikhpura and especially the moderate category.*

**Keywords:** Dental Anxiety (DA), Modified Dental Anxiety Scale, oral health, oral hygiene

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## INTRODUCTION

The response of an adult or a patient towards the stress linked to dental procedures along with unknown or anonymous stimuli is termed as Dental anxiety (DA).<sup>1,2</sup> Throughout the world, people are frequently experiencing fear and anxiety related to dental procedures. However with advancement in technology and knowledge, only a handful of people are now reported with DA. On a ranking of intense fears, the DA ranked at 4th place.<sup>3</sup> The relationship of a dentist to a patient and the dental treatment plan may be affected by the fear and anxiety related to dental therapies.<sup>1,4</sup> It may be

attributed to the demographics like sex, age, education and socioeconomic status.<sup>5-7</sup> It may also be linked with other attributes such as previous history of traumatic dental experience, personality of patient, and childhood experience of dental pain along with experience of a Dental visit by a close friend or family member with a DA problem.<sup>8-11</sup>

Literature review revealed many scales to assess the anxiety and fear levels including Dental fear survey (DSF), Corah's dental anxiety scale (CDAS), General Geer Fear Scale, Modified Dental Anxiety Scale (MDAS), Venham's Pictorial Scale (VPS), Facial Image Scale (FIS) and the State Trait anxiety scale (STAI).<sup>12-14</sup> In this study, Modified Dental Anxiety scale was used. The main aim of this study was to identify and measure DA among general population visiting the OPD of Faryal dental hospital (FDH), Sheikhpura.

## MATERIAL AND METHODS

An observational cross sectional study was conducted at OPD of Faryal dental hospital, Sheikhpura. The duration of study was two years. from: Sept, 2016 to Aug

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2018. A total of 241 participants aged 10-45 years were recruited or invited to participate in this study. The exclusion criteria included all children below 6 years of age or / and respondents who denied participation or unwilling, whereas adults of both gender visiting OPD with any of the dental problem were included in this study. The demographic information like tooth brushing and other oral hygiene habits, dentist visits, dental procedures and other related factors were collected via face-to-face interview. A trained interviewer attentively recorded all the responses. A well-tested Modified Dental Anxiety (MDAS) scale was used to measure the dental anxiety scores in this study. The ethical approval was taken from the hospital ethical committee and in addition to this an informed consent was also taken from all the study participants or their attendants.

**Statistical analysis:** All the information collected or noted from participants were entered electronically to MS EXCELL sheets and stored in computer. Later, this data was entered in SPSS and analyzed by using version 20.0. Descriptive statistics were applied by calculating mean and standard deviation for quantitative variables. Frequency distribution and percentages were performed for all qualitative variables. All the P values less than 0.05 was considered statistically significant in all inferential statistics.

## RESULTS

A total of 241 individuals were recruited for this study. The mean age of the participants was  $26.50 \pm 11.93$ . Six (2.48%) of the participants were having age of below and equal to 15 years, 159 (65.97%) belonged to 16-24 years, 27 (11.20%) were aged 25-34 years, 23 (9.54%) were in age group of 35-44 years and 25 (10.37%) were  $\geq 45$  years old. In this study there were a total of 133 (55.18%) males and 108 (44.81%) were females. Sixty two (25.72%) were married, 171 (70.95%) were unmarried and 1 (0.41%) were with complicated status. About 227 (94%) had primary level education and 13 (06%) were educated above primary level. The detailed summary of diseases or complication or factors related to DA is given in table 1.

The average anxiety score calculated was  $11.68 \pm 4.07$  for all the participants. There were 15 (6%) patients who had no anxiety, 86 (36%) had mild anxiety, 93 (39%) had moderate, 36 (15%) had severe anxiety while 11 (5%) were phobic. Figure 1

## DISCUSSION

The study was conducted to identify and measure dental anxiety amongst general population attending FDH hospital, Sheikhpura during the last two years. The moderate anxiety score of our study is supported by other available studies conducted in India, China

and Greece.<sup>15,16</sup> The mean score observed in our study is contradictory to the score published in studies conducted by Saatchi et al., and Erten et al., where the average score was reported to be  $12.34 \pm 4.74$  in their local populations.<sup>1,17</sup>

We have observed a highly prevalent dental anxiety amongst our population and most of the individuals had moderate DA level. The participants with severe levels of DA were also very high in our population. The reported prevalence for the severity level was higher (15%) than the study conducted by Svensson et al., where they reported almost 5%. In our study, there were 15 (6%) patients who had no anxiety, 86 (36%) had mild anxiety, 93 (39%) had moderate, 36 (15%) had severe anxiety while 11 (5%) were phobic. The reported overall DA prevalence in our study was higher than the studies conducted by Do Nascimento et al. (23%),<sup>18</sup> Malvania (46%),<sup>5</sup> and Taani (39%).<sup>19</sup>

Meta-analysis of previous studies by Astramskaitė et al., had identified the anxiety related factors among persons or patients undergoing any of the dental procedures.<sup>20</sup> They had observed several factors such as experience or expectation of pain, disturbance level

TABLE 1: SUMMARY OF DISEASES OR COMPLICATION OR FACTORS RELATED TO DA

Disorders or Complication	n%
Diabetes Mellitus (DM)	6(2.5%)
Hypertension	23(9.5%)
Cardiac Disease (CD)	13(5.4%)
Hepatitis	8(3.3%)
Allergy	19(7.9%)
Bleeding disorder	4(1.7%)
Thyroid disorder	2(0.83%)
Pain in teeth or gums	98(40.7%)
Swelling	41(17.0%)
Halitosis	27(11.2%)

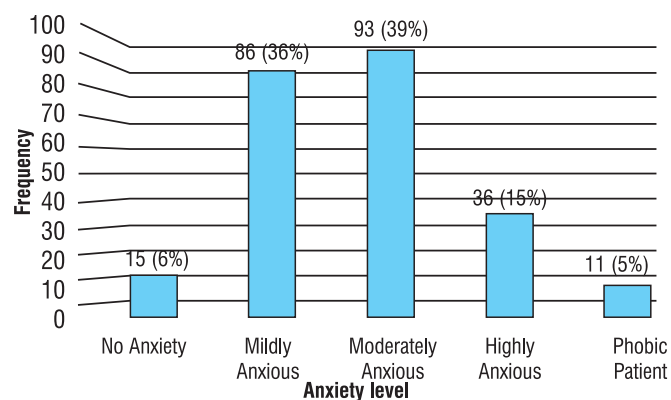


Fig 1: Severity of Dental Anxiety (DA) among the study population

during procedure, procedure complexity and other demographic factors like marital status to be contributory to DA. Among various communities the DA varies in adults.<sup>5,9,21,22</sup> Few other studies revealed that most of the fear and DA were reported in populations with previous traumatic dental experience or history.<sup>3</sup>

Many factors are related to heterogeneity of the population, geographical and ethnic difference might be the probable reasons for this. We also observed in our study a link of age with anxiety scores, younger people having higher anxiety scores than the older ones. Our study findings were supported by other studies as well.<sup>8</sup> Similarly, we observed more women with severe DA scores in comparison to men in our study. This finding is in agreement with study results of Erten,<sup>17</sup> and Saatchi<sup>1</sup>, though, there were also few studies with differences.<sup>23</sup> This study reported that majority of the individual with DA were also having hypertension, allergy and pain and swelling in gums, but there was no significant association of these factors with DA.

## CONCLUSION

Based on this study findings, it is concluded that dental anxiety (DA) is highly prevalent among population of Sheikhpura especially the moderate category.

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## CONTRIBUTIONS BY AUTHORS

All authors contributed substantially