ORIGINAL ARTICLE

Prevalence of Dental Anxiety among the Dental Patients Presenting in Surgical Outpatient Department of A Tertiary Care Dental Hospital: A Cross Sectional Survey

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ABTRACT

Aim: To determine the prevalence of dental anxiety and its association with demographic variables among the dental patients.

Methods; A total number of 100 patients who presented in the Department of Maxillo Facial surgery, were included in the study after an informed consent. Demographic information was collected on a proforma. Dental anxiety was assessed through a structured proforma, derived and translated from Corah's dental anxiety scale in Urdu language. Data was collected and analyzed on SPSS 21. Independent sample t-test and ANOVA was used to calculate the difference.

Results: Results revealed that there were 86% patients who showed dental anxiety of moderate to severe degree. Among these 39% had moderate level of dental anxiety while 19% had high and 28% showed severe anxiety. Results showed a significant difference between the mean dental anxiety scores of male and female subjects. Female had higher mean scores. Current study could not found any significant difference in mean scores in relation to age, marital status, place of residence, employment status and socioeconomic status

Conclusion: There is high prevalence of dental anxiety in the study population. There is significant difference in prevalence according to the gender. Female suffer more with dental anxiety while attending the dental clinics.

Keywords: Dental anxiety. Dental patients

INTRODUCTION

It is generally accepted that dentistry is unpleasant since the days of barber surgeons of the seventeenth and eighteenth century when the painful treatments were needed to be done without the use of anesthesia. Dentistry is done most of the time in oral cavity which is the most sensual area of the body. Therefore the patients are vulnerable and may feel anxiety, fear or even phobia. The childhood experiences are also vital. If the diet and cleaning habits of the child are not satisfactory, it may result in having extractions and the child may become frightened of the dental treatment for the rest of his or her life.[1]As the dental procedures are usually vague and anonymous, they may be a potential source of apprehension for the dental patients.[2,3] Both anxiety and fear may be regarded as adaptive behaviours.[4]Dental anxiety is considered at 4th number in rating of common fears. Despite the technological advancements and improvement in knowledge and skills, a significant number of patients suffer from dental anxiety[5].

Severe stress and fear during surgery can alter patient's physiology which in turn can result in psychosomatic illnesses such as xerostomia and a change in blood pressure. It can worsen the situation in patients with pre-existing ischemic heart disease resulting in increased frequency of postoperative complications.[7] Sometimes patients may even die of acute heart failure or cerebrovascular accident.[8] About 10% to 20% of the adult population suffer from severe dental anxiety[9] which adversely affects the attendance in dental clinics. Avoidance of dental treatment may lead to poor dental health. Highly anxious individuals are often caught in a vicious cycle of fear. Therefore they avoid regular dental treatments, seek help only in painful dental conditions, and so ultimately they have to undergo extensive treatments. People caught in this vicious cycle report poor health in addition to their anxiety[10].

Many factors are important in the development of dental anxiety including age, sex, socioeconomic status, marital status and educational status.[2,11,12,13]Personality characteristics, past traumatic dental experiences especially child hood dental experiences are other contributory factors in the development of dental anxiety. There may also be learned behavior from anxious peers or family members[14,15,16,17.18]. A number of attempts have been made to measure dental anxiety in patients. Corah's dental anxiety scale has been used in different studies successfully. This scale is considered to be simple, valid and reliable instrument for measuring dental anxiety[19].

The objective of the study was to determine the prevalence of dental anxiety and its association with demographic variables among the dental patients.

METHODS

This study was conducted in the year 2014 at de'MontMorency College of dentistry Lahore. Patients between the age range of 15 to 65 were included. A total number of 100 patients who presented in the Department ofMaxillofacial surgery were included in the study after an informed consent. Demographic information was collected on a proforma. Dental anxiety was assessed through a structured proforma, derived and translated from Corah's dental anxiety scale in Urdu language according to Mappi guide lines. Data was collected and analyzed on SPSS 21. Independent sample t-test and ANOVA was used to calculate the difference.

RESULTS

A total no of 100 patients were taken from surgical outpatient department. Results revealed that there were 86% patients who scored more than cut off value on dental anxiety scale.

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Among these 39% had moderate level of dental anxiety while 19% had high and 28% showed severe anxiety. Sample consisted of 43% male with 11.3±3.27 DASS mean scores and 57% females having mean scores of 12.92±3.80. p-value was 0.021.Age of the subjects ranged from 15 years to 65 years. Subjects were divided into four groups. Distribution of the scores was such that 21% of the subjects belonged to the group with age range of 15 year to 24 years had mean scores of 12.19±3.17 , 55% (25 year to 34 years) had scores of 12.36 ± 3.91,17%(35 year to 44 year) had mean 11.94± 3.73 and 7% (>45 years) had mean DASS scores of 11.57±3.50. p-value was 0.92.Educational status was distributed in groups of uneducated (13%), under Matric (23%), Matric & intermediate (42%) and graduate or above graduation having mean DASS scores of 14±4.30,12.65 ± 3.93,12±3.46,10±3.02 respectively with p- value 0.09. Among the sample 69% were married, 30% unmarried and only 1% were widow having mean DASS scores were 12.34±3.84, 11.80 ± 3.30 and 14 respectively. P-value was 0.70. Socioeconomic status was lower in 43% and middle in 57% with mean scores of 12.62±3.98 and 11.87± 3.40 respectively p-value was 0.39. In the sample 52% were unemployed with mean scores of 12.88 ± 3.85 and 48% were employed having mean scores of 11.45±3.33 p-value was 0.554. Residential status was reported as belonging to rural areas 14% and urban 86%, having scores of 12.07 ± 3.95 and 12.22 ± 3.64. P-value was 0.88.

Table 1:

Variable	Sample size (n)	DASS score Means±SD	p-value
Gender			
Male	43	11.23±3.27	0.021
Female	57	12.92 ±3.80	
Age group of subjects			
15- 24 years	21	12.19±3.17	
25- 34 years	55	12.36±3.91	0.92
35-44 years	17	11.94±3.73	
>45 years	7	11.57±3.50	
Educational status			
Uneducated	13	14 ±4.30	0.09
Under Matric	23	12.65 ±3.93	
Matric & FA	42	12±3.46	
Graduate & Above	22	10 ±3.02	
Marital status			
Married	69	12.34 ±3.84	0.70
Unmarried	30	11.80 ±3.30	
Widow	1	14.00-	
Socioeconomic status			
Lower	43	12.62±3.98	0.39
Middle	57	11.87 ±3.40	
Employment status			
Unemployed	52	12.88±3.85	0.554
Employed	48	11.45±3.33	
Residential status			
Rural	14	12.07±3.95	0.88
Urban	86	12.22 ±3.64	

DISCUSSION

According to the present study 86% of the dental patients have dental anxiety above the cut off level. Most of them fall into moderate level i.e., 39%. High level of anxiety is in 19% while 23% had severe anxiety. Comparable findings were given byAhmead andRahhal[20] intheir assessment of Palestinian dental patients where they found only 12.6% patients below the cut off level with 28.3% having moderate level of anxiety,19.5% and 39.5 % had high and severe level of anxiety respectively. However these figures are higher than given by most of the other studies.[20]Mostafaet al[21] found 51.6% dental anxiety among 221 dental patients in Saudi Arabia by using modified dental anxiety scale.Jeddyet al.[22]in his assessment of 300 dental patients in a dental clinic of India found 64.2% patients having dental anxiety. Hamissiet al.[23] in his study on 780 high school students in Iran found that only 14.3% students showed low levels of anxiety while 49.3% had moderate and36.4% expressed high levels of anxiety. Saatchiet et al.[24]in a cross sectional study of 473 patients in Iran, found a prevalence of 58.8% dental anxiety among the study population. Mohammed et al.[25] in her study on Indian population of patients found 77.4% high and 22.6% severe dental anxiety in the study population. These figures are higher than the figures given by studies conducted in advanced countries such as UK (3.3 to 17.4%) and Norway (4 to 9%).[20]These differences may be a reflection of selection criterion of sample and demographic characteristics of the study population. Moreover, there may be difference in technological advancements and the better use of principles of informational care in advanced countries.

Current study also showed significant difference between the mean dental anxiety scores of male and female subjects. Female had higher mean scores. This finding was in accordance to figures given by many other studies. Same findings were given by Rediet al[26] and Peretz et al.[27] However Ozdemir et al[28] found higher scores in male subjects. There are some studies which could not find any association with gender[20,29].

Studies about psychopathological phenomenon have shown that females are over-represented regarding anxiety, worry and fear. This is a phenomenon regardless of its basis, appears to be highly generalized and widely found in various cultures and populations[30].

About educational status current study pointed out though not statistically significant(p-value 0.09) has an inverse relationship with level of education. Same results were found by Attaullah and Ali A .but statistically significant.[30]However

some studies did not find any relationship with level of education[20,21,24]

Current study could not found any significant difference in mean scores in relation to age[20,24],marital status, place of residence[31] ,employment status and socioeconomic status.
There are variable results of prevalence of dental anxiety in relation to sociodemographic characteristic of different populations .This study was conducted to find the prevalence of dental anxiety in local population in relation to the socio demographic characteristics of population. However there are some limitations to this study. High prevalence of dental anxiety may be due to the characteristics of selected population. Subjects were actual patients who came for some surgical problem, expecting some invasive surgical procedure .The dental anxiety has been assessed cross sectionally, which may not be a true reflection of results. Secondly Urdu translation of corah's dental anxiety scale has been used which though translated according to Mappi guidelines, but was used for the first time.

CONCLUSION

There is high prevalence of dental anxiety in the study population. There is significant difference in prevalence according to the gender. Female suffer more with dental anxiety while attending the dental clinics.

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