

MEASUREMENT OF ANXIETY LEVEL AMONG PATIENTS UNDERGOING DENTAL TREATMENT AT MANGLORE

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Article Received on
18 Jan. 2017,

Revised on 08 Feb. 2017,
Accepted on 28 Feb. 2017

DOI: 10.20959/wjpr20173-8118

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ABSTRACT

One of the factors that regrettably act as a powerful barrier to seeking oral health care is the proverbial phenomena called dental anxiety.

Objective: to measure the dental anxiety level among patients undergoing dental treatment at Yenepoya dental college, Mangalore.

Material and method: a questionnaire based cross sectional study assessed by using modified dental anxiety scale (MDAS). A total of 200 subjects included in the study .patients waiting to receive dental treatment in five outpatient department of Oral surgery, Periodontics, Conservative and Endodontic, Pedodontics and Prosthodontics included in the study. A total of 200 answered questionnaires analysed

to assess their anxiety level **Results:** prevalence of dental anxiety among study population was 42.5%. Out of them, 37% were recorded as moderately anxious. 11.5% were recorded as highly anxious and 9% were found to be extremely anxious. In individual departments, extremely anxious was recorded in Pedodontics (25%) and Oral Surgery (20%) **Conclusion:** the results of the study indicate that the highest MDAS score was recorded in Pedodontics followed by Oral surgery.

KEYWORDS: Dental Anxiety, Modified Dental Anxiety Scale.

INTRODUCTION

We are living in a world where health awareness of the people are growing at a fast pace. But inspite of the significant increase in the health awareness of the people, one of the factors that regrettably act as a powerful barrier to seeking oral health care is the proverbial phenomena called dental anxiety.

Generally fear is defined as an individual's response to a real threatening event or dangerous situation to protect his or her life. Three different terms have been used concerning apprehension in dentistry in the literature. Dental fear, dental anxiety and dental phobia. Dental fear is considered to be aroused by a real, immediately present, specific stimulus (e.g. needles, drilling), whereas in the case of anxiety, the source of the threat is unclear, ambiguous, or not immediately present. However, an individual's emotional responses are almost the same in both situations.

Dental anxiety has been recognized as a significant barrier to the seeking of dental care which might be in the form of a delay in receiving dental treatment is associated with the deterioration of oral health. Studies have found that those experiencing high levels of dental anxiety are among those with the poorest oral health related quality of life.

Specific procedures or steps in the dental treatment like extraction, cavity preparations, holding syringe and needles in front of the patient are known to arouse anxiety among them. Amongst all the dental procedures oral surgical, conservative and endodontics, periodontal treatments were reported to be most frightening.

Data availability regarding anxiety associated with various dental treatments and variation in different population is scanty. Professional institution can be suitable setting to carry out anxiety related studies as all dental treatment are provided under single roof by different speciality departments. Hence this study was carried out to assess dental anxiety among patients undergoing dental treatment at Yenepoya dental college.

AIM AND OBJECTIVE

To assess the dental anxiety level among patients undergoing dental treatment at Yenepoya dental college, Mangalore.

Objectives

1. To assess the dental anxiety levels among on different WHO index age groups 5,12,15,35 to 44 and 65 to 74 years
2. To compare the dental anxiety level between males and females.
3. To compare the dental anxiety level among patients undergoing dental treatment in five outpatient department of Yenepoya dental college.

MATERIAL AND METHOD

Index age groups 5,12,15,35-44 and 65-74 years considered.the study population consists of patients waiting to receive dental treatment in five outpatient department of Periodontics, Conservative and Endodontic, Pedodontics and Prosthodontics.InYenepoya dental college selected for the study.

A total of 200 subjects included in the study. patient who are not willing for the study and medically compromised were excluded.

The questionnaire

Each patient was administered a questionnaire based on the modified corahs dental anxiety scale (MDAS). English version of MDAS has been used in the present study. the scale contain five multiple choice items dealing with patients subjective reaction to different dental situation, given in the questionnaire. Participants were asked verbally about the various response related to dental situation. The dentally anxious individuals and severity of dental anxiety was determined by converting interpretation of corahs scale into the formula $0.56+(1.15*\text{DAS score})$.

Based on this conversion, the interpretation of MDAS scale is as follows

Scoring

a = 1, b = 2, c = 3, d = 4, e = 5

Total score is a sum of all five items,

Range 5 to 25:

ANXIETY RATING

<11	Not anxious	15-17	High anxious
11-14	Moderately anxious	≥ 18	Extremely anxious

Above 20, which indicates a highly dentally anxious patient(dentally phobic).

RESULTS

Prevalance of the dental anxiety was 58% with moderately anxiety nearly 37%. Anxiety scores were higher for the younger age groups. Dental phobia has seen in 5 years of age groups. Female were found to be higher anxious(25%). Among the departments, department of pedodontics shown extremely anxious (10%), followed by oral surgery (8%).

TABLE 1

Age Group			
		Frequency	Percent
	5 years	20	10.0
	12 years	20	10.0
	15 years	14	7.0
	35-44 years	109	54.5
	65-74 years	37	18.5
	Total	200	100.0

TABLE 2

Gender			
		Frequency	Percent
	Female	76	38.0
	Male	124	62.0
	Total	200	100.0

TABLE 3

Department			
		Frequency	Percent
	Pedodontics	40	20.0
	Conservative Dentistry and Endodontics	40	20.0
	Periodontics	40	20.0
	Oral Surgery	40	20.0
	Prosthodontics	40	20.0
	Total	200	100.0

TABLE 4

When you are waiting in the dentist's office for your turn in the chair, how do you feel?			
		Frequency	Percent
	Not anxious	110	55.0
	Slightly anxious	71	35.5
	Fairly anxious	14	7.0
	Very anxious	5	2.5
	Total	200	100.0

TABLE 5

When you are waiting in the dentist's office for your turn in the chair, how do you feel?			
		Frequency	Percent
	Not anxious	110	55.0
	Slightly anxious	71	35.5

	Fairly anxious	14	7.0
	Very anxious	5	2.5
	Total	200	100.0

TABLE 6

When you are in the dentist's chair waiting while the dentist gets the drill ready to begin working on your teeth, how do you feel?			
		Frequency	Percent
	Not anxious	15	7.5
	Slightly anxious	88	44.0
	Fairly anxious	59	29.5
	Very anxious	33	16.5
	Extremely anxious	5	2.5
	Total	200	100.0

TABLE 7

Imagine you are in the dentist's chair to have your teeth cleaned. While you are waiting and the dentist or hygienist is getting out the instruments which will be used to scrape your teeth around the gums, how do you feel?			
		Frequency	Percent
	Not anxious	56	28.0
	Slightly anxious	90	45.0
	Fairly anxious	37	18.5
	Very anxious	17	8.5
	Total	200	100.0

TABLE 8

If you were about to have local anesthetics injection in your mouth, how would you feel?			
		Frequency	Percent
	Not anxious	8	4.0
	Slightly anxious	37	18.5
	Fairly anxious	26	13.0
	Very anxious	88	44.0
	Extremely anxious	41	20.5
	Total	200	100.0

TABLE 9

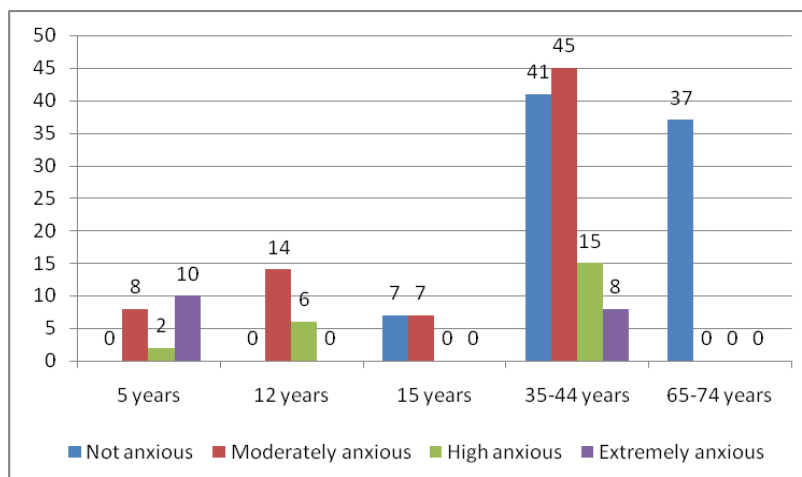
Dental Phobia (Total Score 20 and above)			
		Frequency	Percent
	No Dental Phobia	193	96.5
	Dental Phobia	7	3.5
	Total	200	100.0

TABLE 10 Dental Anxiety Group

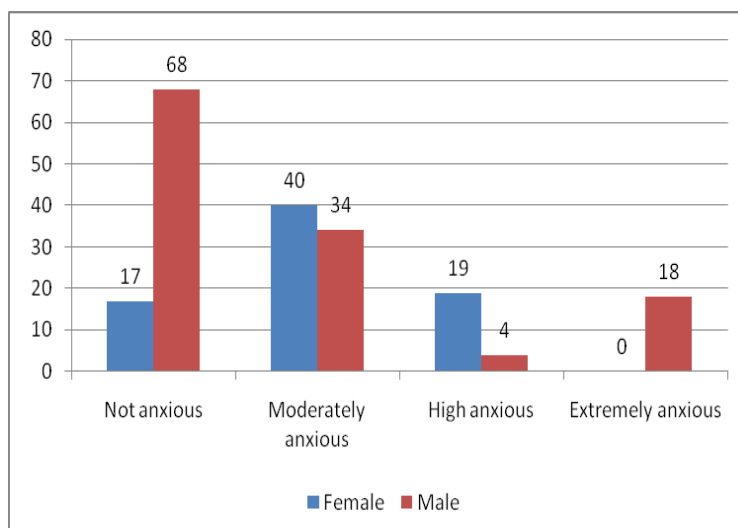
		Frequency	Percent
	Not anxious	85	42.5
	Moderately anxious	74	37.0
	High anxious	23	11.5
	Extremely anxious	18	9.0
	Total	200	100.0

DENTAL ANXIETY BASED ON AGE

		Dental Anxiety Group			
		Not anxious	Moderately anxious	High anxious	Extremely anxious
5 years	Count	0	8	2	10
	% within Age Group	0%	40%	10%	50%
12 years	Count	0	14	6	0
	% within Age Group	0%	70%	30%	0%
15 years	Count	7	7	0	0
	% within Age Group	50%	50%	0%	0%
35-44 years	Count	41	45	15	8
	% within Age Group	38%	41%	14%	7%
65-74 years	Count	37	0	0	0
	% within Age Group	100%	0%	0%	0%

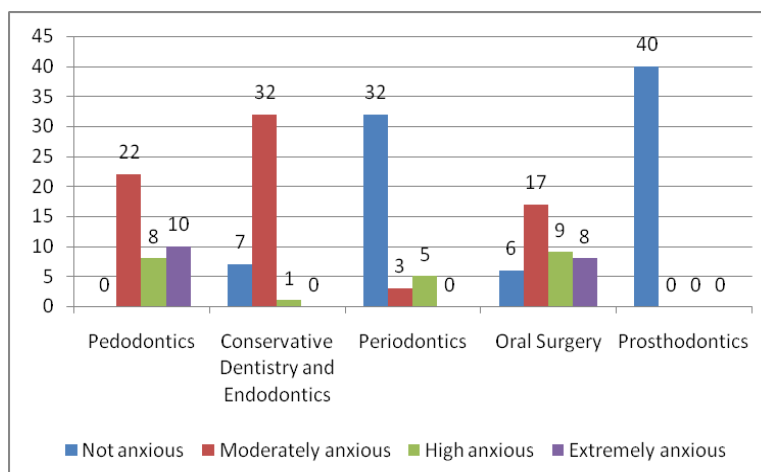
**DENTAL ANXIETY BASED ON GENDER**

		Dental Anxiety Group			
		Not anxious	Moderately anxious	High anxious	Extremely anxious
Female	Count	17	40	19	0
	% within Gender	22%	53%	25%	0%
Male	Count	68	34	4	18
	% within Gender	55%	27%	3%	15%



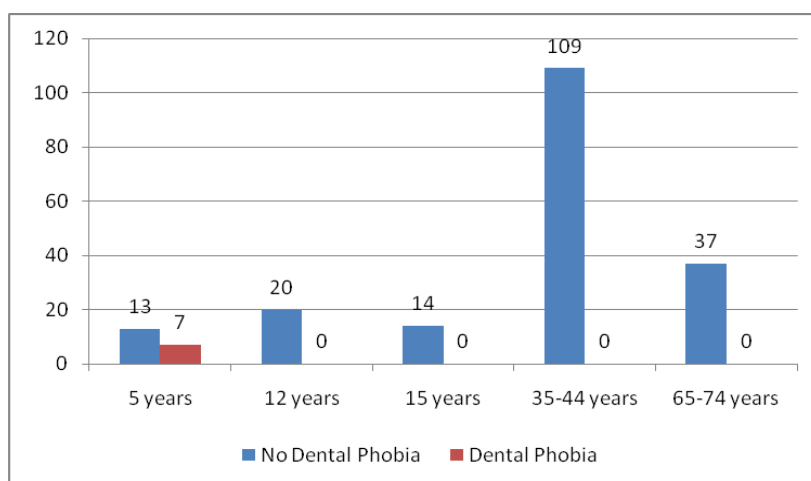
DENTAL ANXIETY BASED ON DEPARTMENTS

		Dental Anxiety Group			
		Not anxious	Moderately anxious	High anxious	Extremely anxious
Pedodontics	Count	0	22	8	10
	% within Department	0%	55%	20%	25%
Conservative Dentistry and Endodontics	Count	7	32	1	0
	% within Department	18%	80%	3%	0%
Periodontics	Count	32	3	5	0
	% within Department	80%	8%	13%	0%
Oral Surgery	Count	6	17	9	8
	% within Department	15%	43%	22%	20%
Prosthodontics	Count	40	0	0	0
	% within Department	100%	0%	0%	0%



DENTAL PHOBIA BASED ON AGE

		Dental Phobia (Total Score 20 and above)	
		No Dental Phobia	Dental Phobia
5 years	Count	13	7
	% within Age Group	65.0%	35.0%
12 years	Count	20	0
	% within Age Group	100.0%	0%
15 years	Count	14	0
	% within Age Group	100.0%	0%
35-44 years	Count	109	0
	% within Age Group	100.0%	0%
65-74 years	Count	37	0
	% within Age Group	100.0%	0%

**RECOMMENDATION**

The development of dental anxiety could be prevented with pain control and behavioural management.

The inclusion of behavior sciences in dental education in the academic dental curriculum could help to improve the situation.

Dentally anxious patients are often difficult to treat. Dental anxiety has been seen to be associated with missed appointment and dental avoidance.

Assessment of dental anxiety may be recommended to assist the dentist in identification and management of dentally anxious patients.

DISCUSSION

The result of this study shows that prevalence of dental anxiety is 46%. this is higher than that of reported in other studies In the present study female respondent had higher MDAS score, showing that female were more likely to show higher level of dental anxiety, this is in accordance with other studies.

The study shows relation between age and dental anxiety. Anxiety scores were higher for the subject below 20 years of age.

Also this study shows 8% extreamlyanxious, in 35-44 years group,almost similar results have been reported in sreesthetal.current results might be due to well accepted fact that dentally anxious individuals are not homogenous group but differ in terms of orgin and manifestation of their fears of dental treatment.

It may be possible that in the present study the subjects below 20 years might had negative dental experience in the past or may have received negative information about dentistry from the surrounding environment which might have increased their anxiety level.

The finding of our study showed that amongst various dental treatments highest MDAS score was recorded for oral surgical procedures followed by periodontal treatment and conservative dentistry and endodontics.

CONCLUSION

The Modified Dental Anxiety Scale (MDAS) might be a useful instrument for the clinical measurement of dental anxiety. It is compact and easy to answer and interpret and thus convenient for use in a busy routine clinical setting for dentists and their patients and also indicate the patient's potential avoiding behavior, which has been found to be a signal of severe dental fear. Thus, efforts should be made to detect and treat dental fear and thus improve the impact of oral health on quality of life.

BIBILIIOGRAPHY

1. S Jaakkola. Dental Fear One Single Clinical Question for Measurement Open Dent Journal. 2009; 3: 161–166.
2. Deepak V.Dental Anxiety, Fear and Phobia in Children, International Journal of Dental Research & Development 2250-2386; ISSN(E): 2321-0117. Feb 2014; 4(1): 1-14.

3. Nanda J, Assessment of Dental Anxiety In Children And Their Caregivers Using Norman Corah's Dental Anxiety Scale. *Journal of Dental Specialities*, September 2013; 1(2).
4. Murray P, Liddell, Donohue J. A longitudinal study of the contribution of dental experience to dental anxiety in children between 9 and 12 years of age. *J Behav Med* 1989; 3: 309-20.
5. Cinar AB, Murtomaa HA. Comparison of psychosocial factors related to dental anxiety among Turkish and Finnish pre-adolescents. *Oral Health Prev Dent* 2007; 5: 173-99.
6. Gustaffson A, Arnrup K, Broberg AG, Bodin L, Berggren U. Psychosocial concomitants to dental fear and behaviour management problems. *Int J Paediatr Dent* 2007; 17: 449-59.
7. Piaget J (1986). *The Psychology of Intelligence*. New York, Routledge & Kegan Paul Inc. Translated from Piaget J (1947) *La Psychologie de l' Intelligence*. Paris, Armand Colin.