



PREVALENCE OF DENTAL FEAR AND ANXIETY AMONGST PATIENTS REPORTING TO DENTAL OFFICE FOR TREATMENT: A FIVE YEAR ANALYSIS

Dental Science

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ABSTRACT

Introduction: From time immemorial, fear and anxiety have been associated with dental treatment. Coping with this fear and anxiety has been one of the most vexing problems with which the individual dentist, as well as the profession has had to contend.

Objective: The purpose of this study was to assess the frequency of dental anxiety and fear among patients reporting to the dental clinic.

Method: Research was based on interviews with 2,480 patients, aged 14 years-old and over, reporting to dental office for various treatment modalities over a period of five years. Modified Dental Anxiety Scale (MDAS) was used for analysing the anxiety levels of these patients. The scores were observed and analysed for assessing the anxiety levels.

Results: The analysis revealed that 15.80% scored 19 and above in the MDAS scale, thus placing them in the category of anxious patients. Also, females were reported to be more in number in this category.

Conclusion: With the higher number of anxious patients reporting to the dental office, it is recommended that the dentists should inculcate some definite measures in their clinical practice to manage such patients in order to provide them the best of oral health care.

KEYWORDS

Anxiety, Fear, Females, Scale, Stress, Treatment

INTRODUCTION:

From time immemorial, fear and anxiety have been associated with dental treatment. Coping with this fear and anxiety has been one of the most vexing problems with which the individual dentist, as well as the profession has had to contend.^{1,2}

Dental anxiety is a substantial component of distress to patients in dental operatory. It is more specific than general anxiety since it is the patient's response to stress, specific to the dental situation. This dental fear and anxiety represents a large problem for patients and dentist, both as a hindrance to regular dental care and as an obstacle to fruitful co-operation.

One of the difficulties encountered by the clinician during dental care is the fear that some patients express with respect to procedures which will take place during their visit. Coming to their dental appointments may represent a major problem for these patients (3).

Fear is a primary and powerful emotion which alerts us about imminent danger, with respect to an object or situation. When danger is recognized, the individual reacts with a set of behavioral and neurovegetative responses which are accompanied by a disagreeable sensation (3)

Whatever be the etiology of the 'Anxiety' viz. unpleasant previous experience, stories of painful dentistry from siblings and parents, misleading information from media sources so on and so forth, the consequence is same; a psychologically afflicted personality who will not let himself be amenable to dental treatment.

Anxiety assessment by questionnaire provides information for the dentist and may also confer a psychological benefit on patients (4, 5). The patients, who are once diagnosed as anxious from the results obtained through the questionnaire form, can then be taken care of in a special manner, thereby winning the confidence of the patient for further visits and also the ability of the dentist to effectively treat the patient increases manifold.

MATERIAL AND METHOD:

2,480 patients (1256 Male and 1224 female), aged 14 years-old and over, reporting to dental office for various treatment modalities participated in the analysis, wherein they were requested to fill the Modified Dental Anxiety Scale (MDAS) form (6). Dental anxiety was measured by calculating the score on this scale. MDAS consists of five questions each of which has five scores, ranging from 'not anxious' to 'extremely anxious,' in ascending order from 1 to 5. Each question thus carries a possible maximum score of 5, with a total possible maximum

score of 25 and a minimum score of 5 on the entire scale. A patient having a score of 19 or above is labeled as anxious (6).

This answering scheme is a simplified rating system in comparison with Corah's Dental Scale (7) that was an early four-question measure of dental anxiety. MDAS includes an extra item about the respondent's anxiety to a local anesthetic injection, which, for many patients, is a major cause of anxiety. MDAS has been found to be reliable and valid in several samples from UK, Turkey, UAE etc. (8,9)

The entire data was compiled of all the patients and analyzed.

OBSERVATIONS AND RESULTS.

A total of 392 patients (15.80%) scored 19 and above in the MDAS scale, out of 2480 patients analyzed. Of these, 253 patients (64.5 %) were females and 139 (35.5 %) were male (Table 1). Of the total female anxious patients, the maximum number were found to be in the age group of 25-34 years (47%, Table 2). In the male patients, the highest number was found to be in the category of 14-24 years age (51%, Table 2).

DISCUSSION

Dental anxiety has always been a barrier to dental care for a consistent proportion of the population (10). Dental anxiety has been a worldwide problem and a universal barrier to oral health care services (11, 12). Anxiety is defined as a reaction to unknown danger and the individual anticipates the worst even from relatively straight forward procedures. Patient anxiety during dental treatment has been of major concern to the dentists (13).

The reason for the anxiety towards dental treatment could be any; fear acquired in the childhood through direct experience with painful treatment or vicariously through parents, friends or siblings which persists into adulthood (14); perceived dentist error during previous treatment, dislike of dentist's behaviour and attitude or fear of needles and drills in general (15). Whatever be the reason, the eventuality is a highly anxious patient who either avoids dental treatment or when visits dental office does not render himself so readily to the treatment (16)

The percentage of anxious patients reporting to the dental office has been variable (17,18). In our sample group the percentage of anxious patients (15.80%) reporting to the dental office as evaluated using MDAS is low as compared to previous studies (18,19, 20). This variation, to a certain extent can be attributed to the large sample group evaluated in our study. Also it is necessary to mention, that the previous studies (18) have evaluated the patients reporting to emergency clinics and it is understandable that patients in pain are likely to be more anxious than otherwise. The results of our analysis also revealed that

female patients were found to be more anxious as compared to males. This is in accordance to several previous studies (19,20, 21, 22, 23) which have drawn similar conclusions. This may be due to real differences in anxiety levels between the sexes, a greater readiness among female to acknowledge feelings of anxiety, or a combination of both (24). The present data implies that gender should be taken seriously in dental anxiety assessment and management.

As far as the criteria of age is concerned as a factor in analysing the anxiety trait, it was observed that in male patients, maximum anxiety levels were observed in 14-24 age group, while in the female patients, this was more seen in 24-34 years age group.

CONCLUSION:

Anxious patients reporting to dental office for treatment can be a real challenge for the dental professional. While the incidence is found more in Female patients, the percentage of anxious male patients reporting can also not be overlooked. The need of the hour is to derive certain 'special care measures' for such anxious patients so as to make them feel comfortable during the treatment.

Table 1: Distribution of Anxious patients (According to sex)

Total anxious patients	Males	Females
392	139 (35.5 %)	253 (64.5 %)

Table 2: Age wise distribution of male and female anxious patients

Age group	Anxious males	Anxious females
14-24	71	58
25-34	43	119
35-44	18	33
45-54	5	29
55-64	2	14
Total	139	253

REFERENCES

- Humphris GM, Morrison T, SJE Lindsay. The Modified Dental Anxiety Scale: validation and United Kingdom norms. *Community Dent Health*. 1995 Sep; 12(3):143-50.
- Milgrom P, Weinstein P. Dental Fears in general practice: New guidelines for assessment and treatment. *Int Dent J*. 1993 Jun;43(3 Suppl 1):288-93
- Kazue Kanegane, Sibe Sarti Penha, Maria Aparecida Borsatti and Rodney Garcia Rocha. Dental anxiety in an emergency dental service. *Rev Saúde Pública* 2003; 37(6)
- Y.-M. Dailey, G.M. Humphris, M.A. Lennon. Reducing Patients' State Anxiety in General Dental Practice: A Randomized Controlled Trial. *J Dent Res* 81(5):319-322, 2002
- Singh H, Meshram GK, Warhadpande MM, Kapoor P. Effect of 'Perceived control' in management of anxious patients undergoing endodontic therapy by use of an electronic communication system. *J Conserv Dent* 2012;15:51-5.
- Humphris GM, Freeman R, Campbell J, Tuutti H, D'Souza V. Further evidence for the reliability and validity of the modified dental anxiety scale. *Int Dent J* 2000; 50: 367-70.
- Corah NL. Development of a dental anxiety scale. *J Dent Res*. 1969 Jul-Aug;48(4):596.
- Humphris GM, Morrison T, Lindsay SJ. The modified dental anxiety scale: Validation and United Kingdom norms. *Community Dent Health* 1995; 12: 143-50.
- Tunc EP, Firat D, Onur OD, Sar V. Reliability and validity of the Modified Dental Anxiety Scale (MDAS) in a Turkish population. *Community Dent Oral Epidemiol* 2005; 33: 357-62
- Smith T, Heaton L: Fear of dental care: are we making any progress. *J Am Dent Ass* 2003; 134:1101-1108.
- Milgrom P, Weinstein P. Dental Fears in general practice: New guidelines for assessment and treatment. *Int Dent J* 1993; 43: 288-293.
- Wright Gerald Z, Alpern Gerald D. Variables influencing children's co-operative behavior at the first dental visit. *J Dent Child* 1971; 16(2):60-64.
- Corah NL, Gale Elliot, Illig Stephen. Psychological stress reduction during dental procedures. *J Dent Res* 1979; 58(4): 1347-1351.
- Neverlien Per Otto, Johnson Tom Backer. Optimism-pessimism dimension and dental anxiety in children aged 10-12 years. *Community Dent Oral Epidemiol* 1991; 19: 342-346
- Kleinknecht Ronald A, Klepac Robert K, Alexander Leib D. Origins and characteristics of fear in dentistry. *J Am Dent Assoc* 1973; 86: 842-848.
- Sohn Woosung, Ismail Amid. Regular dental visits and dental anxiety in adult dentate population. *J Am Dent Assoc* 2005; 136: 58-66.
- Hägglin C1, Hakeberg M, Ahlqwist M, Sullivan M, Berggren U Factors associated with dental anxiety and attendance in middle-aged and elderly women. *Community Dent Oral Epidemiol*. 2000 Dec;28(6):451-60.
- Kazue Kanegane, Sibe Sarti Penha, Maria Aparecida Borsatti and Rodney Garcia Rocha. Dental anxiety in an emergency dental service. *Rev Saúde Pública* 2003; 37(6)
- RS Naidu; S Lalwah. Dental anxiety in a sample of West Indian adults. *West Indian Med J* 2010; 59 (5): 568
- Malvania EA1, Ajithkrishnan CG. Prevalence and socio-demographic correlates of dental anxiety among a group of adult patients attending a dental institution in Vadodara city, Gujarat, India. *Indian J Dent Res*. 2011 Jan-Feb;22(1):179-80.
- Kingsley O, Akhigbe, Olaide N, Koleoso. Trait anxiety, sex, age and dental Treatment experience as determinants of dental anxiety among chronic Dental patients in Nigeria. *European Scientific Journal* 2014; ;10(12)
- Gadbury-Amyot C. and William KB. Dental hygiene fear: Gender and age difference. *J Contemp Dent Pract*, 2000; 1, 1-11.
- Akarsian ZZ, Erten H, Uzun O, Iseri E, Topuz O. Relationship between trait anxiety, dental anxiety and DMFT indexes of Turkish patients attending a dental school clinic. *East Mediterr Health J*, 2010; 16.
- Thomson WM, Stewart JF, Carter KD, Spencer JA. Dental anxiety among Australians. *Int Dent J*, 1996; 46, 320-324