

Psychological Aspect Of Patients Undergoing Dental Extraction

Research Article

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Abstract

Through the use of the survey, the psychological status of patients undergoing dental extractions will be determined. The psychological status of each patient would differ as per their past dental experience or perspective towards dental procedures. The aim of this study is to evaluate the psychological status of patients undergoing dental extractions. The objectives of this study are to use a questionnaire and review the patient's mindset towards dental extraction, to understand the need of good communication between the doctor and patient, to relate the patient's past dental experience to its psychological status towards dental extraction and finally to review on factors affecting patient's psychological status. The study will be conducted on a population of 100 dental patients listed for extraction. Both genders will be taken into consideration and will be presented with a questionnaire in a dental hospital for the study. A structured questionnaire was designed and given to them. The data collected from the survey was used to analyse and evaluate the psychological status of patients undergoing dental extractions. Extraction is one of the most feared dental procedures. Thus, knowing and understanding the physiological status of a patient during the dental procedure will give the doctor attending such patients a better method in providing a satisfactory dental experience.

Keywords: Extraction; Psychological; Patients; Surgery.

Introduction

The anxiety disorders and major depressions are common during visits to any doctor. Visit to a dentist is mostly an anxiety inducing memory for people [13]. Dental anxiety can be defined as an abnormal fear of visiting the dentist for preventive care or therapy and unwarranted anxiety over dental procedures and may have psychological, cognitive and behavioural consequences [11]. Furthermore, it is a barrier to the dental care utilisation. People avoid going to a dentist because of the fear and anxiety they have towards the dentist [4].

Tooth extraction is one of such procedures which brings about dental anxiety in people to the maximum extent [7]. Many of the studies done under this topic to check the physiological status of people undergoing extraction have been found to have people with the maximum anxiety level compared to other dental procedures [6]. It is important for the dentist to understand the anxiety and its consequences in dental care and thus identify behaviours

of anxiety in order to maintain a relationship of trust with the patient [19].

The best way to assess dental anxiety is by using questionnaires or scales. The types of dental anxiety scales are Modified Dental Anxiety Scale, Corah's DAS, Trait Anxiety Scale and State Anxiety Scale [17]. Modified Dental Anxiety Scale (MDAS) is a method used to assess the level of anxiety in people visiting dental clinics and also on the dental anxiety people face when they are undergoing extraction [23]. Advantage of the MDAS is that it is a more time efficient, simple, and cost-effective instrument for population-based research [20].

Age, education level, gender, occupation, past dental experience, dentist's communicative skill and financial stability have various levels of variations in dental anxiety. Recently there has been a growing interest in the body's ability as a self-organizing and self-repairing system [3]. The placebo effect is an example of the body's self-healing abilities through psychological means. This effect has been observed in relation to many diseases and treat-

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ments [15]. The present view is that it results from doctor/patient interaction, which seems to be a very potent therapeutic ‘tool’ [14].

The mechanisms triggered by psychological factors are not well understood. However, there is evidence that placebo analgesia is mediated, at least partly, via the opioid peptide system. Recent research in neurophysiology and endocrinology indicates a closer relationship between higher cortical functions and autonomic processes than previously believed [21]. The general practitioner often meets the patient early in the disease, when one might expect the chance of helping the patient by strengthening his self-herding might be best [9]. Although GPs acknowledge the doctor patient relationship as an important part of their armamentarium, we wanted to study this issue further.

Materials and Method

In this study a population of 100 dental patients listed for extraction regardless of their gender were presented with a questionnaire. This took place in Saveetha Dental Hospital. A structured questionnaire was designed consisting of a mixture of modified dental anxiety scale questions and perception questions. The patients awaiting dental extraction procedure found outside the

clinic were individually interviewed. In this questionnaire, the first 5 sets of questions will be able to explain why the patient's anxiety level and the other 5 sets of questions will determine the patient's anxiety level. The data collected from the survey was thoroughly analysed and the psychological status of patients undergoing dental extractions was evaluated.

Results

Tables and Figs.

Discussion

In this study 3 factors affecting dental anxiety were studied; past dental experience, past dental extraction and doctor-patient communication. To begin with, patients with pleasant past extraction experience have proven to feel a lower anxiety level. This is the case where the pleasant past experience has left a good impact on the image of dentistry and removed the common phobia towards dental clinics [10].

Furthermore, in this study it is seen that majority of them had disagreed with feeling anxiousness and that the majority popula-

Table 1.

Questions	YES	No
Past dental experience	67	33
Past dental extraction (out of 67)	25	42
Doctor explained about the dental procedure	79	21

Table 2.

Rank	1	2	3	4	5
Previous extraction	2	3	5	2	13

The scale 1-5 represents a painful to pleasant dental extraction experience.

Table 3.

Questions	Rarely	Often	very often
Dental visits	79	15	6

Table 4.

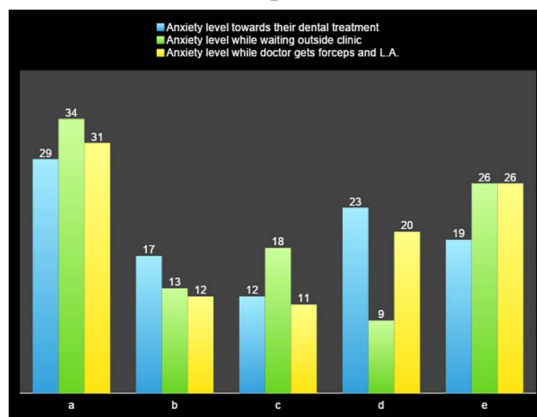
Questions	a	b	c	D	e
Anxiety level towards their dental treatment	29	17	12	23	19
Anxiety level while waiting outside clinic	34	13	18	9	26
Anxiety level while doctor gets forceps and L.A.	31	12	11	20	26

- a- Not anxious
- b- Slightly anxious
- c- Fairly anxious
- d- Very anxious
- e- Extremely anxious

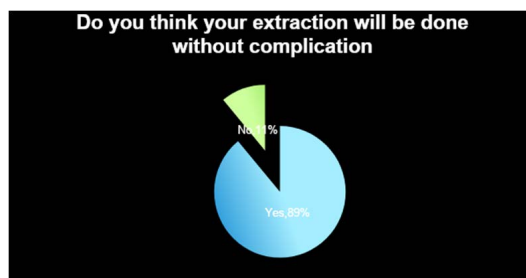
Table 5.

Questions	Yes	No
Do you think your extraction will be done without complication	89	11

Graph 1.



Graph 2.



tion being men, it is evident that most of the men denied expressing their emotions [1]. The plausible explanations could be that the women admit to their fears more readily than men or that they have lower tolerance levels compared to men [1].

It was also seen that the majority of patients felt anxious the most when they were waiting outside the clinic for their turn and when they were seated in the dental chair while their doctors brought the forceps and injection [22]. People generally have phobia towards sharp objects such as injections and forceps and it is commonly known and expected to face when visiting a dentist thus the waiting time before they have it in their mouth the anxiety begins building up in them [8].

In addition to this, the doctor-patient relationship has shown to be significant [18]. It is seen that doctors who had talked over with their patients regarding their dental procedure had been able to reduce their anxiety level for the extraction.

In this study a bonus question was asked to inquire about the patient’s psychological status. The patients were asked what their image of a dentist was [16]. Surprisingly, the majority of the patients with past dental experiences had described the dentists as a rather friendly and helpful person. However, when asked a newbie they had given an image of a scary person in white coats and with sharp instruments [5].

Conclusion

Thus, from the current study it can be concluded that dental anxiety

is significantly affected by past dental experiences, past extraction experiences and by doctor-patient communication.

According to George et al, it is said that Chennai has 45.5% prevalence of permanent tooth loss [5]. Furthermore, Oosterink and colleagues proved that surgical procedures are the most anxiety provoking stimuli [6]. Therefore, it is important to know the patients’ psychological aspect in order to carry out an efficient and pleasant dental extraction experience.

References

- [1]. Appukuttan D, Datchnamurthy M, Deborah SP, Hirudayaraj GJ, Tadepalli A, Victor DJ. Reliability and validity of the Tamil version of Modified Dental Anxiety Scale. *J Oral Sci.* 2012;54(4):313-20. Pubmed PMID: 23221156.
- [2]. Appukuttan D, Subramanian S, Tadepalli A, Damodaran LK. Dental anxiety among adults: an epidemiological study in South India. *N Am J Med Sci.* 2015 Jan;7(1):13-8. Pubmed PMID: 25709973.
- [3]. Armfield JM. A comparison of three continuous scales used to determine the prevalence of clinically significant dental fear. *Community Dent Oral Epidemiol.* 2011 Dec;39(6):554-63. Pubmed PMID: 21732958.
- [4]. Asimakopoulou K, Newton JT. The contributions of behaviour change science towards dental public health practice: a new paradigm. *Community Dent Oral Epidemiol.* 2015 Feb;43(1):2-8. Pubmed PMID: 25327392.
- [5]. Berggren U. Dental fear and avoidance: a study of etiology, consequences and treatment. University of Göteborg, Faculty of Odontology. 1984.
- [6]. Chauhan DN, Singh PR, Shah K, Chauhan NS, editors. *Natural Oral Care in Dental Therapy.* John Wiley & Sons; 2020 Feb 11.
- [7]. Fox C, Newton JT. A controlled trial of the impact of exposure to positive images of dentistry on anticipatory dental fear in children. *Community Dent Oral Epidemiol.* 2006 Dec;34(6):455-9. Pubmed PMID: 17092274.
- [8]. George B, John J, Saravanan S, Arumugham IM. Prevalence of permanent tooth loss among children and adults in a suburban area of Chennai. *Indian J Dent Res.* 2011 Mar-Apr;22(2):364. Pubmed PMID: 21891920.

- [9]. Guelmann M. Dental fear in children may be related to previous pain experience during dental treatment. *J Evid Based Dent Pract.* 2005 Sep;5(3):143-4. Pubmed PMID: 17138354.
- [10]. de Jongh A, Franssen J, Oosterink-Wubbe F, Aartman I. Psychological trauma exposure and trauma symptoms among individuals with high and low levels of dental anxiety. *Eur J Oral Sci.* 2006 Aug;114(4):286-92. Pubmed PMID: 16911099.
- [11]. Al Khamis S, Asimakopoulou K, Newton T, Daly B. The effect of dental health education on pregnant women's adherence with toothbrushing and flossing - A randomized control trial. *Community Dent Oral Epidemiol.* 2017 Oct;45(5):469-477. Pubmed PMID: 28612363.
- [12]. Neha P. Comparative Evaluation of Dental Anxiety and Fear in Children by using Camouflaged Syringe and Conventional Syringe. *Open Access J. Dent. Sci.* 2019.
- [13]. Kritsidima M, Newton T, Asimakopoulou K. The effects of lavender scent on dental patient anxiety levels: a cluster randomised-controlled trial. *Community Dent Oral Epidemiol.* 2010 Feb;38(1):83-7. Pubmed PMID: 19968674.
- [14]. Lara A, Crego A, Romero-Maroto M. Emotional contagion of dental fear to children: the fathers' mediating role in parental transfer of fear. *Int J Paediatr Dent.* 2012 Sep;22(5):324-30. Pubmed PMID: 22092785.
- [15]. Luoto A, Tolvanen M, Rantavuori K, Pohjola V, Lahti S. Can parents and children evaluate each other's dental fear?. *Eur. J. Oral Sci.* 2010 Jun;118(3):254-8.
- [16]. Milgrom, P, Weinstein, P, Getz, T. Treating Fearful Dental Patients: A Patient Management Handbook. University of Washington, Continuing Dental Education. 1995.
- [17]. Moraes AB, Ambrosano GM, Possobon RD, Costa Junior ÁL. Fear assessment in Brazilian children: The relevance of dental fear. *Psicologia: teoria e pesquisa.* 2004 Dec;20(3):289-94.
- [18]. Oosterink FM, de Jongh A, Aartman IH. What are people afraid of during dental treatment? Anxiety-provoking capacity of 67 stimuli characteristic of the dental setting. *Eur J Oral Sci.* 2008 Feb;116(1):44-51. Pubmed PMID: 18186731.
- [19]. Possobon RD, Carrascoza KC, Moraes AB, Costa Jr ÁL. O tratamento odontológico como gerador de ansiedade. *Psicologia em estudo.* 2007 Dec;12(3):609-16.
- [20]. Possobon, R. D. F., De Fatima Possobon, R. and Pace, A. B. L. 'Anxiety, stress and depression and its association with locus of control and sense of coherence among dental students', *Anais do Congresso de Iniciação Científica da Unicamp.* doi: 10.19146/pibic-2015-37000. 2015.
- [21]. Saber HM, Awad SM. Is Dental Fear related to Clinical Consequences of Untreated Dental Caries in Children?. *Egypt. Dent. J.* 2018 Jul 1;64(3-July (Orthodontics, Pediatric & Preventive Dentistry)):1941-7.
- [22]. Saravanan S, Madivanan I, Subashini B, Felix JW. Prevalence pattern of dental caries in the primary dentition among school children. *Indian J. Dent. Res.* 2005 Oct 1;16(4):140.
- [23]. Spielberger CD, Vagg PR, editors. *Test anxiety: Theory, assessment, and treatment.* Taylor & Francis; 1995.