International Journal of Dental Research, 3 (1) (2015) 1-4

International Journal of Dental Research

Journal home page: www.sciencepubco.com/index.php/IJDR
doi: 10.14419/ijdr.v3i1.3929
Research Paper

Effectiveness of patients' knowledge about perioperative information prior to third molar removal

Vrinda Kolte [1]*, S. R. Shenoi [2], Shefali Ghodeswar [3], Anoop Garg [4], Kshitij Bang [5]

[1]*Professor(MDS)&Guide*
[2]*Professor (MDS), HOD (department of oral &maxillofacial surgery)*
[3]*Post Graduate Student of Oral &Maxillofacial VSPM Dental College& Research Centre*
[4]*Professor (MDS)*
[5]*SeniorLecturur(MDS-Department of Oral & Maxillofacial Surgery)*
**Corresponding author E-mail: drvrindkolte@gmail.com*

Abstract

Many patients feel anxious before dental treatment on the presumption that the procedure will cause them pain and discomfort. Among other procedures, oral surgery has been reported to induce highest level of anxiety. The surgical removal of mandibular third molars is one of the most commonly performed dent alveolar procedures in oral and maxillofacial surgery. Individuals of lower socioeconomic status, with less education and lack of knowledge about the procedure are one major factor to preoperative anxiety. Provide preoperative information about the procedure significantly reduces patient anxiety. Several preoperative variables were recorded (during preoperative, intraoperative and postoperative phases) and patient anxiety was assessed through the use of various questionnaires.

Keywords: *Dental Anxiety; Preoperative Anxiety; Third Molar*

1. Introduction

Third molar removal is a common surgical procedure for young adults and adolescents. This procedure is usually associated with a high level of anxiety and discomfort for patients. To improve treatment, to increase patient comfort and to minimize perioperative risks, implementation of anxiety-reducing procedures during surgery is of great importance. Such maneuvers include providing a calm clinical environment, inspiring confidence in the surgeon and surgical team, administering preoperative anxiolytics when necessary, providing analgesia and providing knowledge about the procedure. Studies have shown that lack of knowledge about the procedure is one of the major contributors to preoperative anxiety. Therefore, the purpose of this study was to investigate the perioperative perception of patient who presented for extraction of third molars.1

2. Aims and objectives

2.1. AIM

To investigate the preoperative perceptions of patients who underwent extraction of third molars to assess their concerns during the surgical experience.

2.2. Objectives

To assessed patient's level of knowledge about third molar surgery.

3. Materials and method

This study was designed to evaluate patient's level of knowledge about third molar surgery.
Sample of the study:
This study was carried out in 50 patients visited in the Department of Oral and Maxillofacial Surgery.
Inclusion criteria for case selection:
All the patient above the age of 18 years indicated for third molar extraction.
Exclusion criteria for case selection:
1) Medically compromised patients.
2) Individuals aged less than 18 years.

3.1. Materials

Patient were divided into 2 groups –Sample size of total 50 patients
1) Group 1 comprised 15 patients with previous experience with extractions(either simple or surgical extraction)
2) Group 2 comprised 35 patients with no previous extraction experience.

3.2. Method

The complete protocol comprised of: Pre-operative assessment on personal characteristics(age, gender, education level, history of tooth extraction but the operating surgeon will be blinded), indication for third molar extraction and radiographic degree of extraction., patients were grouped by above stated which was blinded and the researcher asked whether the patient had any questions(preoperative, intra-operative and postoperative).

Table 1: Format. Department of Oral & MaxilloFacial Surgery

1. Name:_____
2. Registration no, Performa no: _____
3. Age / Sex/ :_____
4. Education Level:_____
5. History of Tooth Extraction (will be blinded):_____
6. Indication for 3rd Molar :_____
7. Radiographic degree of Impaction:_____

Impaction type	Degree of Impaction	Level of Impaction
Vertical		
Mesioangular		
Distoangular		
Horizontal		
Inverted		

Knowledge about 3rd Molar Extraction According to surgical stages

Sr.No	Stage	Question	Knowledge (% of Pts.)
1.	Preoperative	1. Can I drink /eat before the procedure? 2. How should I clean my teeth? 3.Should I take any medication? 4.Any other "Question" or "Misconception"?	
2.	Intraoperative	1.Is the anesthesia technique local or general ? 2.How much discomfort is expected during surgery? How long is surgery? 3.Will all teeth be removed at once? 4.Is it necessary to cut the gum? 5.Is it necessary to suture? 6.Any other "Question" or "Misconception"?	
3.	Postoperative	1.How much discomfort is expected after surgery? 2.How long is my postoperative recovery? 3.What should I drink/eat after surgery? 4What type of hygiene should I perform? 5.When do I return for a postoperative visit? 6.Any other "Question" or "Misconception"?	

Patient Signature

Questions addressed- preoperative (diet, hygiene and medications) Intraoperative (the type of anaesthesia used, discomfort expected during surgery, duration of procedure, number of teeth to be extracted and need for incisions or sutures) Postoperative (discomfort after surgery, recovery period, follow-up visits, diet and hygiene).

A checklist was then reviewed with the patient as detailed and as presented in the "Results" section.

4. Result -data / statistical analysis

There are 16 subjects in group I and 34 subjects in group II. Questions asked in group I were 40 and in group II were 105. Misconceptions in group I was 18 (45%) and in group II were 37 (35.23%) (Table 2) This was found statistically non-significant (P > 0.05).

Table 2: Descriptive Statistics for Question and Misconception Related to Patient's Extraction Experience.

	Group I	Group II	Chi Square	p
9n	16	34		
Question	40	105		
Misconception	18	37	1.17	0.27
%	45	35.23		

In group I the number of questions asked on preoperative period (that includes food and medication) were 37 and misconception were 16 (43.24%) In group II, number of questions asked were 53 and misconception were 19 (34.54%) (Table3). This is found statistically non-significant as (P > 0.05). In the preoperative period, patients in group II had more questions on food than patients in group II and on medication group I had more questions about the use of medication than patients in group II.

Table 3: Descriptive Statistics for Questions and Misconception Related to Food and Medication During Preoperative Phase.

Criteria	Group I		Group II		Chi Square	p
	Question	Misconception (%)	Question	Misconception (%)		
Food	37	16 (43.24)	53	20 (37.20)	0.28	0.59
Medication	55	19 (34.54)				

Age was divided into 2 groups, in group I patients between the age of 15-25 years and questions asked were 97 and misconceptions were 23 (Table 4). In age group II, age >25 number of questions asked were 48 and misconception were 32. As P value is less than 0.05 (P > 0.05), it is statistically non-significant. Group I patients between the age of 15-25 years had more questions about the procedure than the patients in group II.

Table 4: Descriptive Statistics about Age and Knowledge about Third Molar Surgery

Age	Question	Misconception	Chi Square	p
15-25	97	23	1.51	0.22
>25	48	32		

In total 50 patients (33 female patients and 17 male patients) had removed third molars. Questions asked by males were 55 questions and misconceptions 19 (34.54%). Questions asked by females were 90 and misconceptions were 36 (40 %). As P value is greater than 0.05 (P < 0.05), it is statistically significant. More number of misconceptions in a group of female than in male group (Table 5).

Table 5: Descriptive Statistics between Gender & Knowledge about Third Molar Surgery

Gender	Question	Misconception	Chi Square	p
Male	55	19 (34.54)	21.74	<0.001
Female	90	36 (40)		

5. Discussion

Fear of dental treatment is spread widely among the populace and appears in varying degrees. The terms “dental anxiety” and “dental phobia” are not used together in relevant literature and the border between them is blurred. We, therefore, differentiate between dental anxiety and pathological dental phobia, which are defined in the following:

Dental anxiety is the term used to apply to all psychological and physiological variations of a more or less strong but not pathological feeling of fear in conjunction with a dentist’s appointment or stimuli relating to dental treatment. Pathological dental phobia is characterized by the avoidance of dental treatment in addition to a high level of anxiety.

In this study questions addressed in Table1 case history proforma. They were organized into 3 phases of surgery. In this study questions and misconception in preoperative, Intraoperative and postoperative phases were taken between the two groups (Table 2, Fig1).

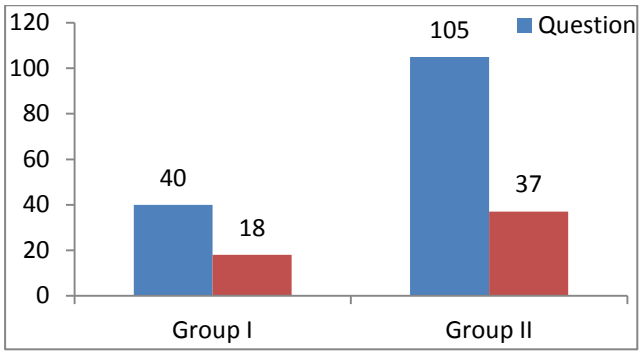

Fig. 1: Distribution of Questions and Misconception in Preoperative, Intraoperative and Postoperative Phases.

Enkling et al reported precise information on the length, type and overall duration of the treatment. Researchers have confirmed the effectiveness of preoperative information provision for anxiety reduction during dentoalveolar surgery. To rate anxiety, the patients were asked to complete several questionnaires.2

Muglali and Komerik claimed that previous negative experiences may be attributed to pain and discomfort felt intraoperative and postoperative. Previous surgical experiences influence patient’s response to new treatment and play an important role in anxiety level. Patient with a poor previous experience tend to have more severe anxiety before the operation.3

In this study, the mean female had more questions than male and highly statistically significant as p value is greater than 0.001 (Table 5, Fig4).

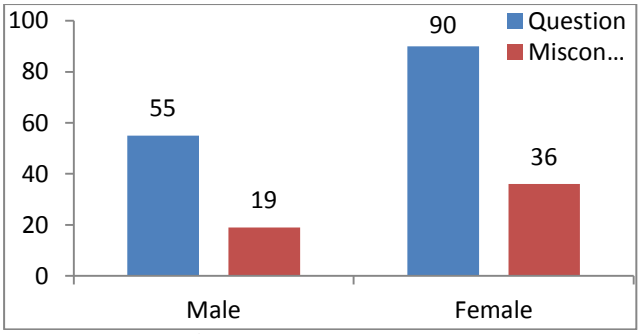

Fig. 4: Distribution of Questions and Misconception Related to Gender and Knowledge about Third Molar Surgery.

Garip et al showed women were significantly more anxious than men; women who had not a previous operation were more anxious than other women. Mean value for women (n=66) and mean value for male (n=36).4

Enkling et al also found a correlation between age and anxiety level, where older patients were less fearful. The maximum anxiety was found in the aged group 20 to 30 years and minimum was found in the group aged 51 to 60 years.2 Humphris et al reported in relation to age, the younger population appears to have higher dental anxiety levels.5 In this study patients with age group 15-25 years had more questions (Table 4, Fig 3).

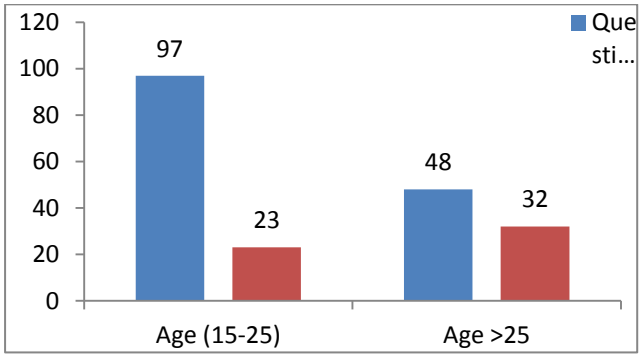

Fig. 3: Distribution of Questions and Misconception Related to Age and Knowledge about Third Molar Surgery.

Wijk and Lindeboom studied that most patients appreciated having a separate consultation with the oral and maxillofacial surgeon before surgery. They concluded that the use of preparatory information and cognitive-behavioral techniques should be confirmed in an effort to maximize quality of care.6

Arasa and Figueiredo et al. found that patients with deep impacted third molars that required bone removal and tooth sectioning showed higher levels of preoperative anxiety and concluded that impacted lower third molar extractions are significantly more difficult in anxious patients. Thus, a systematic preoperative assessment of this variable, with specific questionnaires, might be very useful.7

Patients with a previous extraction history showed more interest and, to certain extent, knowledge about the possibility of preoperative medication taken before surgery, whereas patients who had never had a previous dental extraction might not know which antibiotics or anti-inflammatory drugs could be appropriate circumstances for dental extractions.8 Questions and misconception related to patient's experience on food and medication during preoperative phase were asked and found statistically significant in group II (Table 3, Fig2).

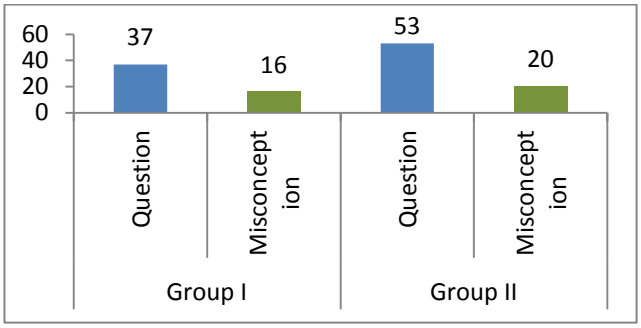

Fig. 2: Graph Showing Questions and Misconception Related to Patient's Experience on Food and Medication during Preoperative Phase.

6. Conclusion

Patient with high levels of dental anxiety typically report psychological consequences as well, including social disability and reduced quality of life. Consequently, negative experiences during dental treatment are possible factors that promote dental anxiety.

The development of stress-reducing and anxiolytic preoperative techniques is of considerable importance for both patients and surgeons. Thus, a systematic preoperative assessment with specific questionnaires was very useful. Sensitivity and understanding about the psychosocial nature of the dental health care environment should be an aim in the education of dentists in the 21st century, in order to prevent and treat suffering from extreme dental anxiety and related dysfunctional phenomena.

References

[1] Brasileiro B, Braganca R et al (2012), an evaluation of patient's knowledge about perioperative information for third molar removal. J Oral Maxillofac Surg 70:12-18. http://dx.doi.org/10.1016/j.joms.2011.06.225.

[2] Enkling N, Marwinski G, Johren P (2006), Dental anxiety in a representative sample of residents of a large German city. Clin Oral Investi 10:84. http://dx.doi.org/10.1007/s00784-006-0035-6.

[3] Muglali M, Komerik N (2008), Factors related to patient's anxiety before and after oral surgery. J Oral Maxillofac Surg 66:870. http://dx.doi.org/10.1016/j.joms.2007.06.662.

[4] Garip H, Abali O, Goker K, et al (2004), Anxiety and extraction of third molars in Turkish patients. Br J Oral Maxillofac Surg 42:551. http://dx.doi.org/10.1016/j.bjoms.2004.08.001.

[5] Humphris GM, Freeman R, Campbell J, et al (2000), further evidence for the reliability and validity of the modified dental anxiety scale. Int Dent J 50:367. http://dx.doi.org/10.1111/j.1875-595X.2000.tb00570.x.

[6] Van Wijk A, Lindeboom J (2008), the effect of a separate consultation on anxiety levels before third molar surgery. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 105:303. http://dx.doi.org/10.1016/j.tripleo.2007.07.028.

[7] Arasa and Figueiredo et al (2014), Patient anxiety and surgical difficulty in impacted lower third molar extractions: a prospective cohort study. Int J Oral Maxillofac Surg 43: 1131–1136. http://dx.doi.org/10.1016/j.ijom.2014.04.005.

[8] Ness GM, Peterson LJ (2004) Impacted teeth, Peterson's Principles of Oral and Maxillofacial Surgery in (Miloro M ed) Hamilton, Ontario: BC, Decker, p 139.