



## A QUESTIONNAIRE SURVEY ON THE PERCEPTION AND EXPERIENCE OF PATIENTS UNDERGOING TOOTH EXTRACTION.

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### ABSTRACT

**Brief Background:** Tooth extraction is a frequent treatment in oral and maxillofacial surgery which is the painless removal of a tooth or tooth root with minimal trauma to the investing tissues with uneventful wound healing. The quality, efficacy, and efficiency of treatment approaches as well as the medical, psychological and social status plays the important role in determining the patients perception. **Aim:-** To evaluate the perceptions and experiences of patients having tooth extraction at Swami Devi Dyal Hospital and Dental College in Haryana. **Materials And Method:-** A self-administered questionnaire of 30 questions was administered to the patients reporting to the Department of Oral and Maxillofacial Surgery of swami devi dyal dental college and Hospital, Barwala, Panchkula. Their responses were collected, and descriptive statistical analysis was done. **Results:-** Data were analyzed using the statistical package SPSS 26.0 (SPSS Inc., Chicago, IL) and the level of significance was set at  $p < 0.05$  using the Chi-Square test.

### KEYWORDS :

#### INTRODUCTION

Efficient medical communication depends on an understanding of the patient's perspective. One of the most commonly encountered procedures in oral & maxillofacial surgery is tooth extraction. Such a tooth could be associated with either pulpal, periapical, or periodontal disease.

Tooth extraction is the painless removal of a whole tooth or tooth root, with minimal trauma to the investing tissue, so that the wound heals uneventfully and no post-operative prosthetic problem is created.

India is a developing country, and poverty and a lack of education make understanding conservative treatment choices for dental problems challenging. Despite the fact that they have a variety of treatment options accessible to them, they choose extraction because it is practicable, cost-effective, and requires less follow-ups, but they are ignorant of the minor and major complications that may arise following the tooth extraction.

Furthermore, because of the patient's medical history and health-related disorders, if the dentist refuses to perform extraction, the patient reacts negatively and prefers quacks who are unqualified and have inadequate Knowledge regarding the various complications such as paresthesia, nerve injury, hematoma or Anaphylactic shock during extraction or any surgical procedure.

The most prevalent cause of complication is failure to follow post-extraction instructions, which results in significant pain and delayed recovery postoperatively.

Excessive bleeding may occur during tooth extraction owing to underlying bleeding diseases that the dentist fails to detect before to extraction or any surgical operation. Many cases have been reported in India where patients died as a result of hematological problems after extraction. This is mostly owing to the dentist's negligence.

Another medical explanation might be high blood glucose levels or blood pressure, both of which are exceedingly hazardous and can be deadly.

Furthermore, because to a lack of a trained dentist, a bone fracture may occur during extraction, resulting in nerve damage and severe trauma.

This questionnaire, on the other hand, was created to assess the quality, efficacy, and efficiency of treatment approaches as well as the medical, psychological, and social effects for patients. The purpose of this study was to examine the patient's impression and experience during extraction.

#### MATERIALS AND METHOD

A self-administered questionnaire of 30 questions was administered to the patients reporting to the Department of Oral and Maxillofacial Surgery of swami devi dyal dental college and Hospital, Barwala, Panchkula. Their responses were collected, and descriptive statistical analysis was done.

#### Inclusion Criteria:

Patients over 18 years, medically fit and healthy with no comorbidities, patients who reported pain/ swelling/open extraction wound/difficulty in mouth opening, and any other complaints after simple dental extraction.

#### Exclusion Criteria:

Patients less than 18 years, medically compromised patients, and patients who underwent trans alveolar extractions.

#### Description Of Questionnaire:-

The data from the participants were collected, and statistically analyzed, and results were obtained.

1 Have you ever experienced tooth pain and reported it to a dentist?

A. YES B. NO

2 Was the removal of the tooth, the only treatment option?

A. YES B. NO

3 Did your dentist present you with the options to save your tooth?

A. YES B. NO

4 If so, did you go through that procedure?

A. YES B. NO

- 5 Was the procedure to save your tooth, successful?  
A. YES B. NO
- 6 Has someone in your family or friends got an extraction done?  
A. YES B. NO
- 7 Did they recommend that you should get an extraction?  
A. YES B. NO
- 8 Have you undergone an extraction before?  
A. YES B. NO
- 9 How was your previous experience regarding the procedure?  
A. Excellent B. Good C. Satisfied D. Not Satisfied E. No response
- 10 Was your current extraction painful?  
A. YES B. NO
- 11 Was the injection painful or traumatic?  
A. YES B. NO
- 12 Did the dentist ask you for any blood-related disorder or any systemic disease before extraction?  
A. YES B. NO
- 13 Was the extraction process more time-consuming?  
A. YES B. NO
- 14 Was the bleeding eventful?  
A. YES B. NO
- 15 Did you follow the post-extraction instructions properly?  
A. YES B. NO
- 16 How much time did it take to heal the wound?  
A. 3 weeks  
B. 4 weeks  
C. 5 weeks  
D. 6 weeks
- 17 Was the healing of the wound normal?  
A. YES B. NO
- 18 If not, was there any pus or abscess formation?  
A. YES B. NO
- 19 Did you visit the dentist for a general inspection of the wound?  
A. YES B. NO
- 20 Did your dentist prescribe you any medicine?  
A. YES B. NO
- 21 Did you properly take medicine?  
A. YES B. NO
- 22 Was there any complication or any problem due to the medicine?  
A. YES B. NO
- 23 Did you notice any pain in the wound after two or three days of tooth extraction?  
A. YES B. NO
- 24 Did you notice any reduced mouth opening after the injection or extraction procedure?  
A. YES B. NO
- 25 Did you notice any colour change in the facial region?  
A. YES B. NO
- 26 Was there any swelling in the facial region before or after tooth extraction?  
A. YES B. NO
- 27 Numbness subsides after how much time of extraction?  
A. 10-12 mins B. 20-30 mins  
C. 40-60mins D. >60 mins
- 28 Was numbness longer (for days or weeks)?  
A. YES B. NO
- 29 Was there any post-operative bleeding hours or days after extraction?  
A. YES B. NO
- 30 Was the extraction distressing? Was there a surgical procedure performed or were sutures placed after the procedure?  
A. YES B. NO

(SPSS Inc., Chicago, IL) and the level of significance was set at  $p < 0.05$ . Descriptive statistics was performed to assess the mean and standard deviation of the respective groups. The normality of the data was assessed using Shapiro Wilkison test. Inferential statistics to find out the difference between the groups was done using the CHI SQUARE TEST.

**DISCUSSION:**

Dental pain is a result of insult to the pulp which may be due to trauma, infections, or due to inflammation. Inflammation of the pulp may be a result of dental caries or defective dental fillings. In this study among 38 patients, 68% of them reported to the dentist with complaints of pain. Fig 1



Fig. 1

To prevent a tooth from being extracted, several endodontic and periodontal therapies are suggested. In this study, just 8% of patients disagreed with the 92% of patients who claimed that tooth extraction was their only option. Fig 2 The operator gave the patients who wanted to keep their teeth a choice in 28% of the cases. Fig 3. Only 5% of the population had the treatment to save their tooth. Fig 4

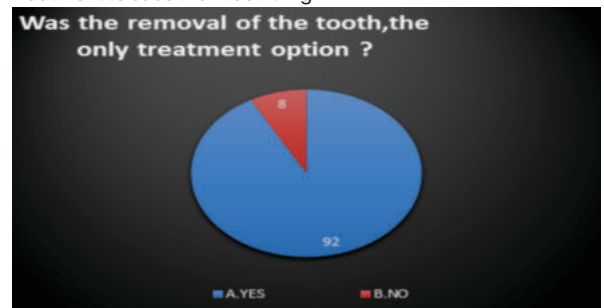


Fig.2



Fig3

Fig4

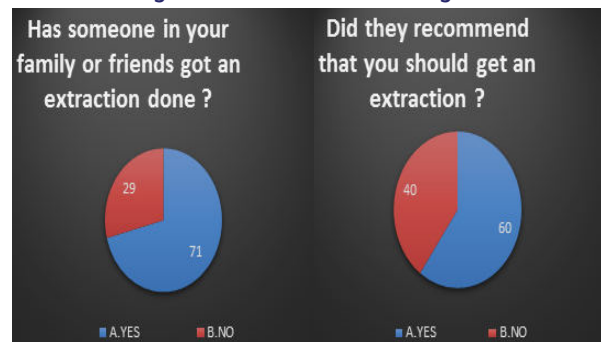


Fig 5

Fig 6

**RESULTS**

Data was analyzed using the statistical package SPSS 26.0

The history of extraction in the patient's friends and relatives has a substantial impact on their choice to pursue treatment. Family or relatives of the patients had already undergone extractions in about 71% of cases. fig 5. 60% of patients had family or friends advocate an extraction, as opposed to 40% who did not. Fig 6

People who have had teeth extracted in the past often choose to have the surgery again because of past experiences. The extractions have been carried out in 71% of patients, compared to 29% that did not. Fig 7 Their previous experience concerning the procedure was recorded, 21% of them responded excellent, 31% said it was good, 26% of patients were satisfied, 2% were not satisfied and 18% had no response. fig 8

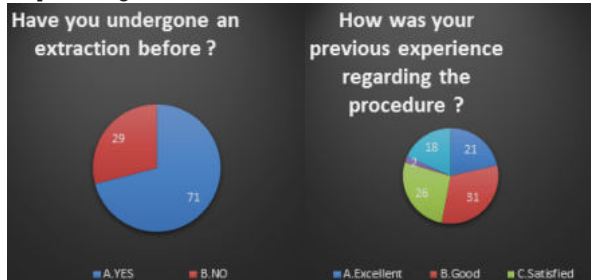


Fig. 7

Fig. 8

The perception of intraoperative pain during extraction even after the administration of local anesthetic may be caused by poor LA administration, an infection under the tooth, or anxiety related to the treatment. 98% of the patients did not experience any tooth pain during the procedure while 2% reported pain during the current extraction. Fig9. 34% of the patients reported that the injection was painful or traumatic while 65% didn't feel any pain during the injection. fig10

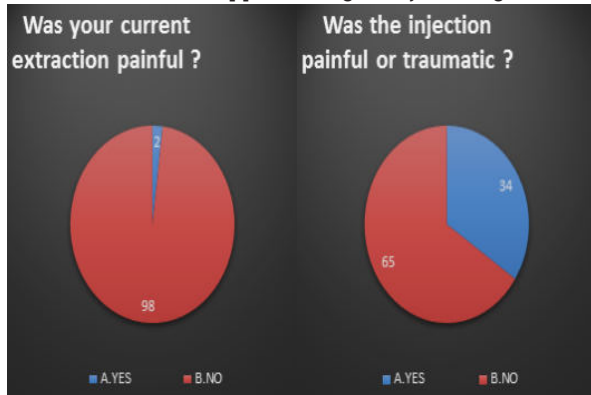


Fig. 9

Fig. 10

Blood-related disorders may affect the patient's clotting and bleeding factors. Consequently, this results in both intraoperative and postoperative complications. Bleeding from an extraction socket is the most common postoperative complication encountered by the dental surgeon. Bleeding may be the continuation of primary, reactionary (occurring within 48 hours of the operation when the effect of the vasoconstrictor in Local anesthesia wears off and there is reactive hyperemia), or secondary hemorrhage (a rare complication of tooth extraction which may be due to infection which destroys the blood clot). Therefore, a thorough medical history must be obtained, including information on any systemic disorders and blood-related disorders before an extraction, 97% of patients said that their dentist had enquired about any systemic disorders or blood abnormalities, whereas just 2% denied doing so. fig11. 95% of patients had no eventful bleeding during the procedure. fig12. 2% of the patients even reported post-operative bleeding hours or days after extraction. fig13

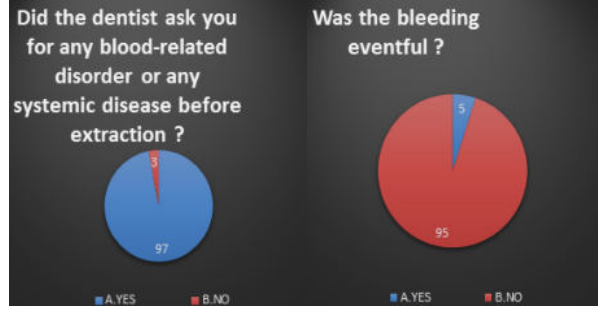


Fig.11

Fig.12

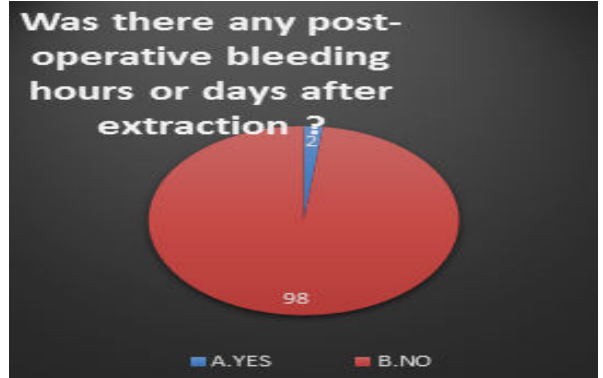


Fig.13

The time taken for the extraction of a tooth depends on various factors such as the tooth's location, the complexity of the case as well as the patient's overall health and dentist's skill and experience. 3% of the patients reported that their extraction was more time-consuming while 97% did not. fig14. 10% of the patients said that the extraction was upsetting and that a surgical operation was carried out along with the placement of sutures. fig15

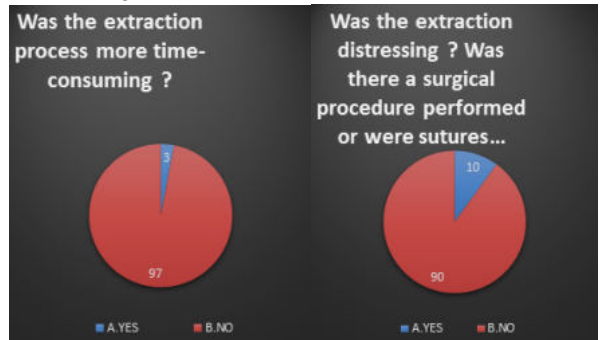


Fig.14

Fig.15

Following tooth extraction, dentists provide patients with crucial post-operative instructions and medications like analgesics for pain relief and antibiotics to prevent or treat the infection. Patients are advised to follow these prescriptions meticulously to ensure a smooth and complication-free recovery. Almost all of the patients took the medicines prescribed by the dentist. While 2% of patients experienced problems as a result of the medication, 98% of patients did not. Fig16

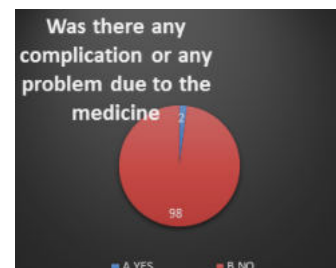


Fig.16

Post-extraction wound healing is an important phase as it determines the overall success of the extraction procedure. Healing is defined as the recovery of damaged tissue in the body. Post-extraction wound healing is an intricate biological process following tooth removal. It involves sequential phases: blood clot formation, inflammation, granulation tissue development, epithelialization, and bone healing. 89% of the patients reported normal wound healing while 11% said that their wound healing was abnormal. Fig17 While 95% of the patients had no pus or abscess formation, only 5% of them did. fig19 Approximately 85% of the patient visited their dentist for a general inspection of the wound while 15% of them did not. fig20

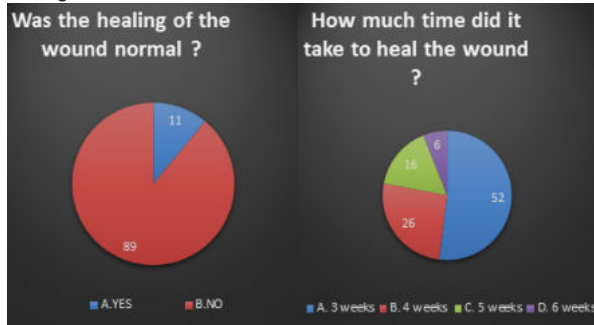


Fig.17

Fig.18



Fig.19

Fig.20

Among the patients, the length of time it took for a wound to heal was noted. Approximately 52% of the patients recorded in the survey reported that the healing of the socket occurs in 3 weeks, 26% of patients reported 4 weeks for wound healing followed by 36% of patients said that the wound was healed in 5 weeks. In 6% of the patients, it took more than a month (6 weeks) for wound healing to occur. Fig 18

Inflammation is the main cause of pain reported two to three days after tooth extraction. Inflammation is brought on by the body's reaction to tissue damage and repair, which causes discomfort. 89% of the patients reported pain after 2-3 days of extraction while 11% of patients did not have any pain. fig21

Trismus or inability to open the mouth due to muscle spasms may complicate oral surgical procedures, Particularly difficult dental extractions may be caused by postoperative edema, hematoma formation, or inflammation of the soft tissues. Trismus can also be caused due to needle injury to the sphenomandibular ligament during the inferior alveolar nerve block. Damage to the temporomandibular joint due to excessive downward pressure or keeping the patient's mouth wide open for a longer period can also lead to trismus. In this survey, 3% of the patients reported reduced mouth opening postoperatively. fig22

Various variables, such as inflammation, hematomas, and localized vascular reactions, might cause color changes in the facial region or swelling after tooth extraction. None of the patients who participated in the survey had facial region's hue

change. While 2% of patients do complaint of facial edema either before or after tooth extraction. Fig23

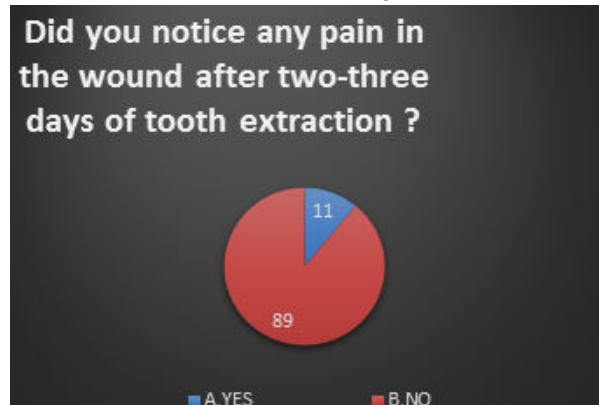


Fig.21



Fig.22

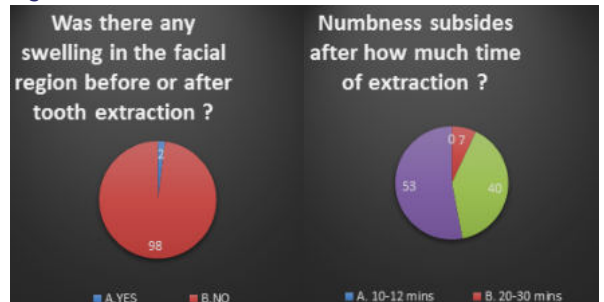


Fig.23

Fig.24

The duration of local anesthesia effects after tooth extraction is dependent on the type of local anesthetic used, its dosage, and individual patient response.

The duration of time, the patients' numbness lasted was noted in this survey. The maximum time for which numbness lasts is 60 min in approximately 40% of patients. fig24

**CONCLUSION:-**

Continuing dental education to the patients must include lectures and videos regarding the awareness for maintaining oral health and managing some rare complications that can occur during dental surgical procedures. It is the duty of dentists to give proper oral health education and insist the patients to follow the post-operative instructions promptly, thereby occurrence of any untoward postoperative sequelae can be prevented.

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