

# Awareness about Tooth Extraction among General Public: A Survey

DR. SATISH KUMAR<sup>1</sup>, P. VARSHA<sup>2</sup> T. MATHI BHARATHI<sup>3</sup>, DR. VANDANA SHENOY<sup>4</sup>, DR. MOHAMED AFRADH<sup>5</sup>

<sup>1,5</sup> Reader, <sup>2,3</sup> Intern, <sup>4</sup> Professor,

Department Of Oral and Maxillofacial Surgery,  
Thai Moogambigai Dental College and Hospital, Chennai, India

**Abstract:-** Tooth extraction is a dental procedure that involves removal of tooth from the alveolar socket with the help of local anesthesia to numb pain by a dentist. The purpose of this survey is to evaluate the basic knowledge of general public regarding dental extraction. An online based questionnaire study consisting of 15 questions regarding dental extraction was carried out to assess among 250 general people across Chennai, Tamilnadu through Google forms. The results of this study shows the lack of awareness and knowledge about dental extraction among general public though they were aware of few basics involved. The carelessness and misconceptions of their dental health observed among the people clearly shows the need of creating awareness among them.

**Keywords:-** Awareness, Dental extraction, Tooth removal, Oral and maxillofacial surgery, General public, Questionnaire study.

## I. INTRODUCTION

The ideal tooth extraction is a painless process of removing of the whole tooth, or root, with minimal trauma to the investing tissues, so that the wound heals uneventfully & no post-operative complications. Teeth can be extracted in children and adults for various reasons like unrestorable tooth with decay, mobile tooth and trauma. Among the primary dentition, first primary molars were extracted commonly more than any other primary teeth.(1) Teeth can also be extracted in case of infections and also for orthodontic treatment purposes. In various studies, it is observed that in people under the age of 50, dental caries lead to extraction whereas, in people above 50yrs of age, it was observed that the main reason for extraction was periodontal diseases.(2) Extraction of teeth is an inexpensive treatment and so people opt for extraction over other conservative treatments. But extraction of tooth should be the last option in dental treatments. A decrease in the number of teeth may result in poor dietary habit and deterioration of quality of life (3). The

number of extracted teeth can serve as an indicator of socio-economic and oral hygiene level (4). Hence extraction became one of the chosen dental treatments among general population, this survey is performed to assess the basic knowledge and to understand the conceptions prevailing about dental extraction among the general public population.

## II. METHODOLOGY

An online questionnaire-based assessment survey was carried out amongst the general population across Chennai, Tamilnadu to assess the knowledge on extraction of the tooth and also to evaluate the existing awareness levels based on their personal experience. After the prerequisite information was collected, 15 relevant questions were prepared using available evidence-based literature pertaining to the present study. The self-administered questionnaire evaluated among the study participants had few selected responses to specific questions along with a few close-ended questions (Yes/ No/ don't know) in English language. Since this study was carried out during the COVID-19 Pandemic situation, online Google forms were generated and distributed through various social media platforms.

A total of 251 people across Tamilnadu took part in the questionnaire survey and filled the google form based on their own knowledge and personal experience on dental extraction.

## III. STATISTICAL ASSESSMENT

Non-probability, random sampling method was preferred that yielded information from 251 individuals belonging to the general population (Public) were taken into this cross-sectional study. Responses recorded were evaluated using SPSS (Statistical Package for the Social Sciences V24.0 Illinois, Chicago) software Version 24.0. All the study respondents were instructed about the purpose of the study and pre-filled online consent was obtained to ensure their participation was purely voluntary.

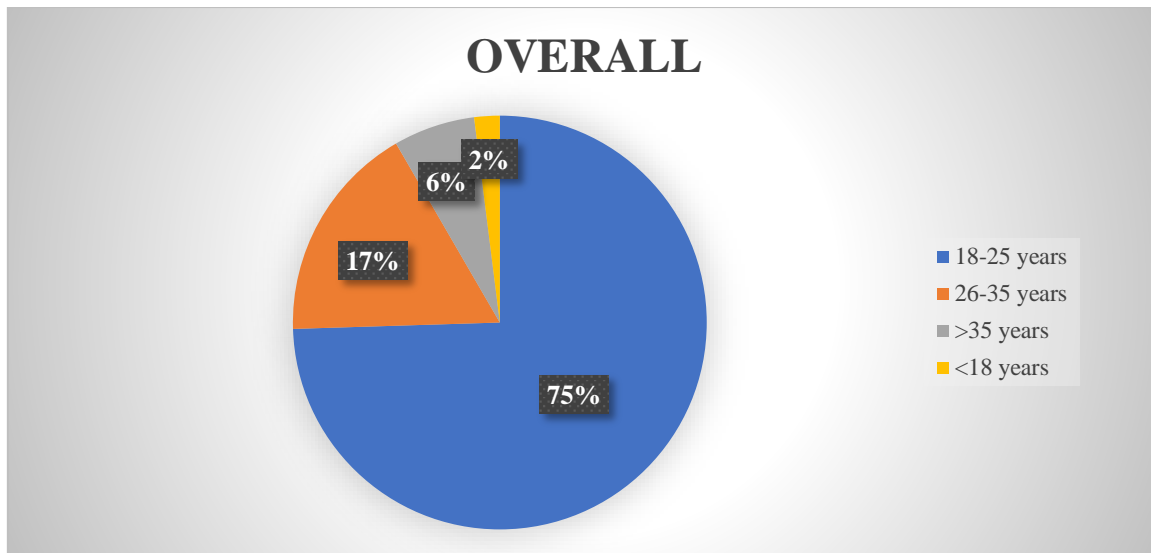


Fig. 1: STATISTICAL ASSESSMENT

**IV. RESULTS**

On analysis of the data, it was observed that majority of the study participants were between the age range of 18 and 25 years (74.50%) followed by people between 26 and 35 years of age (17.13%), greater than 35 years of age (6.37%) and last being people younger than 18 years of age (1.99%).

In the present study, on analyzing the knowledge about dental extraction, 91.24% of the people were aware that extraction is a dental procedure. About 70.52% of people undergo routine dental checkup.

About 38.25% of people are hesitant to extract tooth due to various reasons. About 84.06% of people know that extraction can be done in cases of deep cavity, mobile tooth and also impactions. Also, around 73.31% of people are aware that extraction of tooth can also be done for esthetic purposes.

Only around 5.18% of people are not aware that extraction of tooth requires administration of anesthetic

injections. About 17.13% of people do not know whether extraction of tooth involves bleeding or not.

About 84.86% of people are aware that hot food should not be consumed after extracting tooth. About 84.80% of people cold food items can be consumed after extracting a tooth and around 50.60% of people know that we should not spit after extraction.

Only around 11.95% of people are not aware that milk tooth can be extracted in children. Approximately 71.71% of people know that ice cream can be given even to children after extraction.

About 41.83% of people do not know when extraction can be done in pregnant women and around 43.43% of people are aware that extraction can be done during 2<sup>nd</sup> trimester in pregnant women.

Approximately 54.98% of people know that the cotton can be removed after 30 minutes after extracting a tooth and around 18.73% of people think that the cotton has to be replaced with a new one.

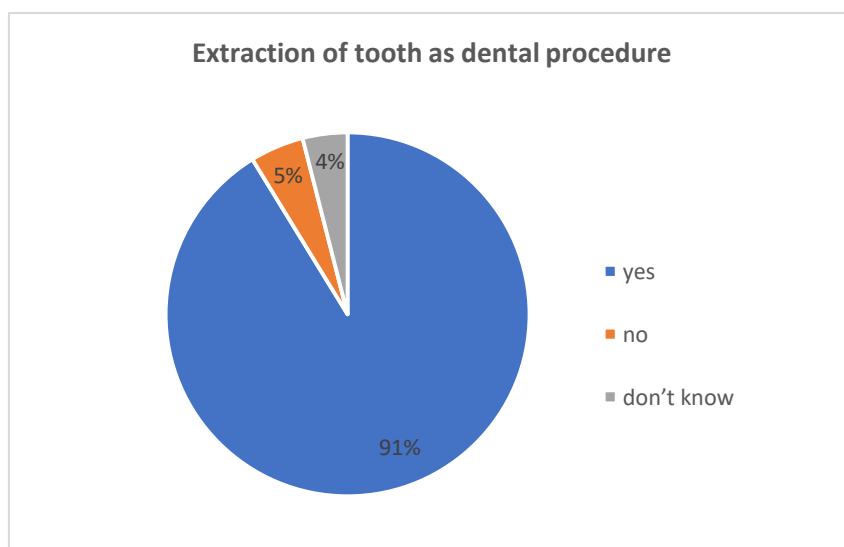


Fig. 2: Extraction of tooth as dental procedure

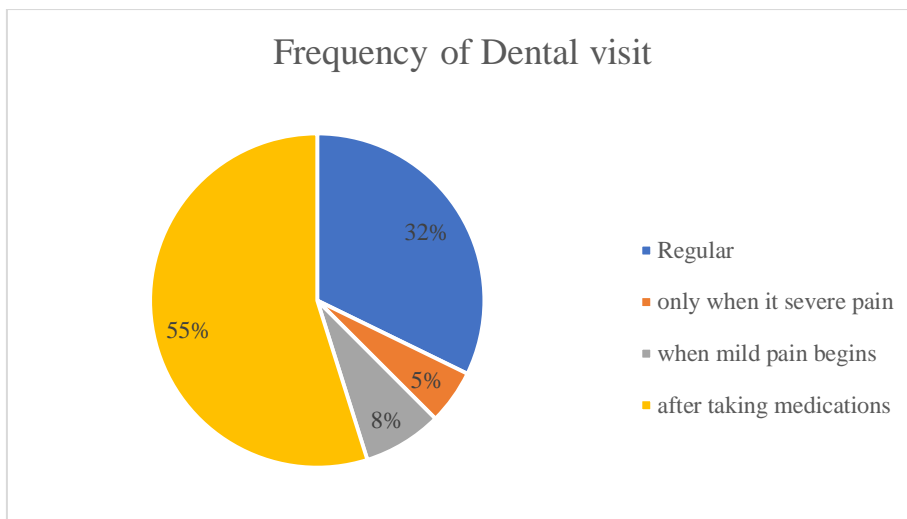


Fig. 3: Frequency of Dental visit

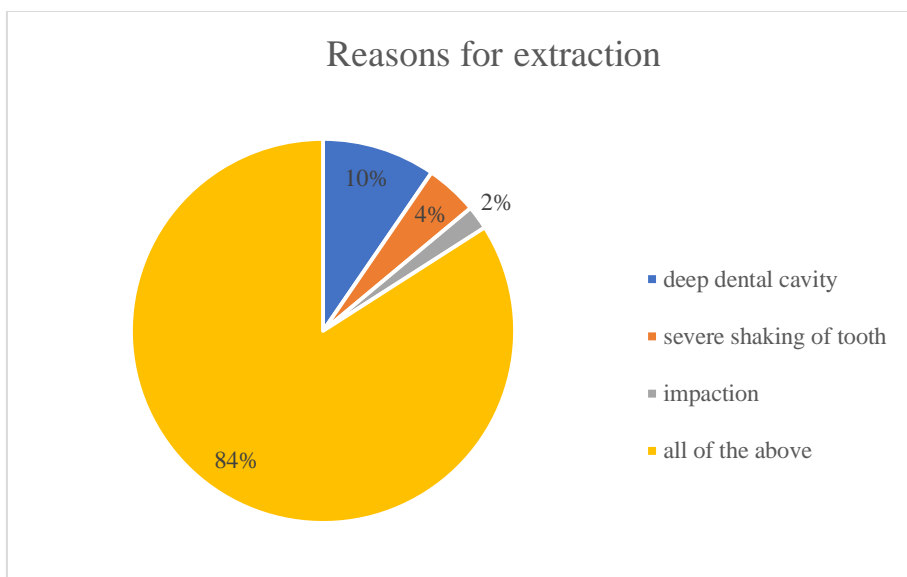


Fig. 4: Reasons for extraction

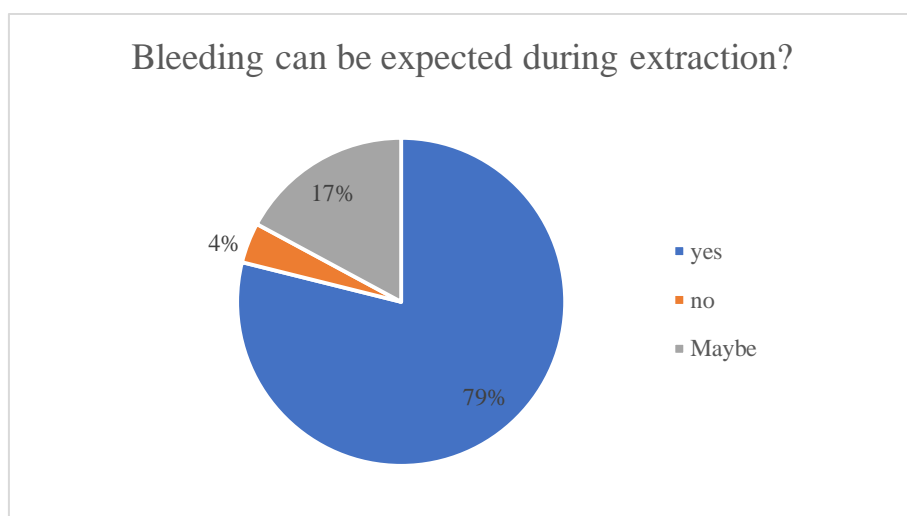


Fig. 5: Bleeding can be expected during extraction?

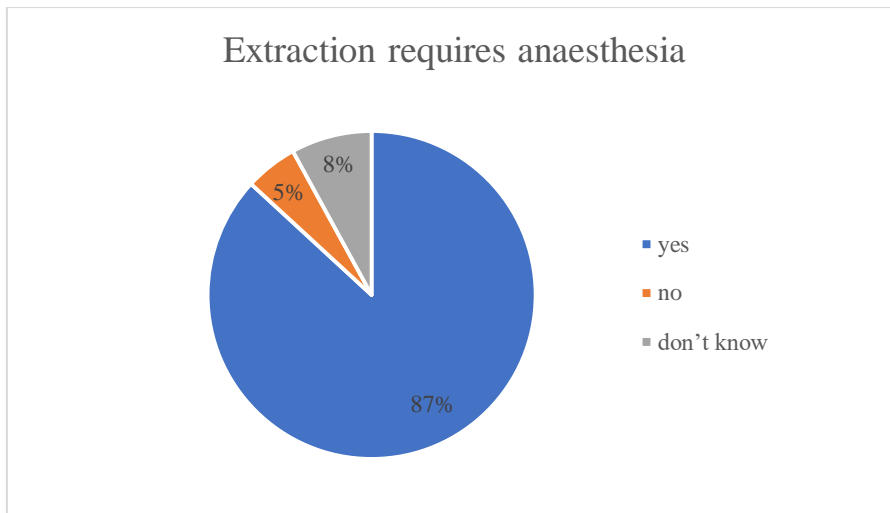


Fig. 6: Extraction requires anaesthesia

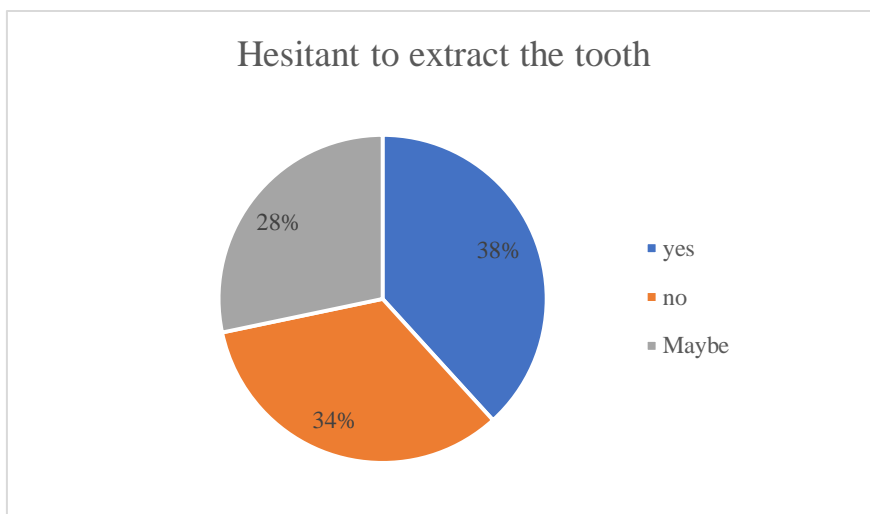


Fig. 6: Hesitant to extract the tooth

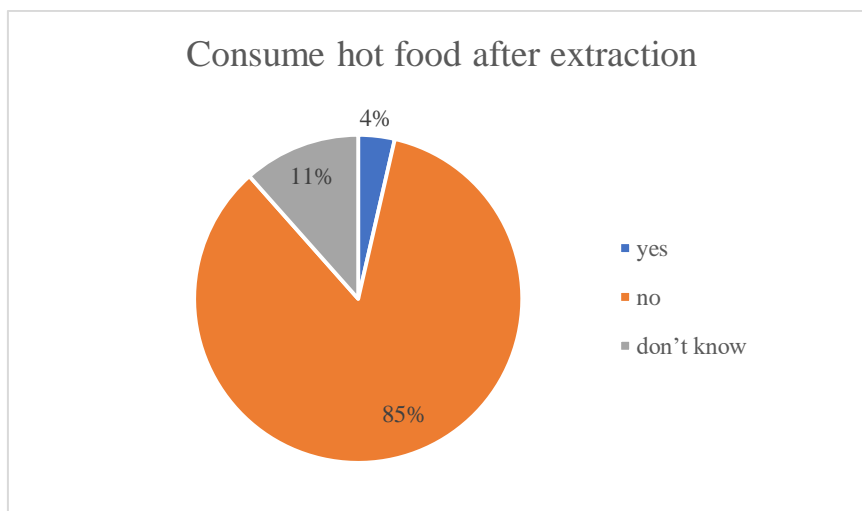


Fig. 7: Consume hot food after extraction

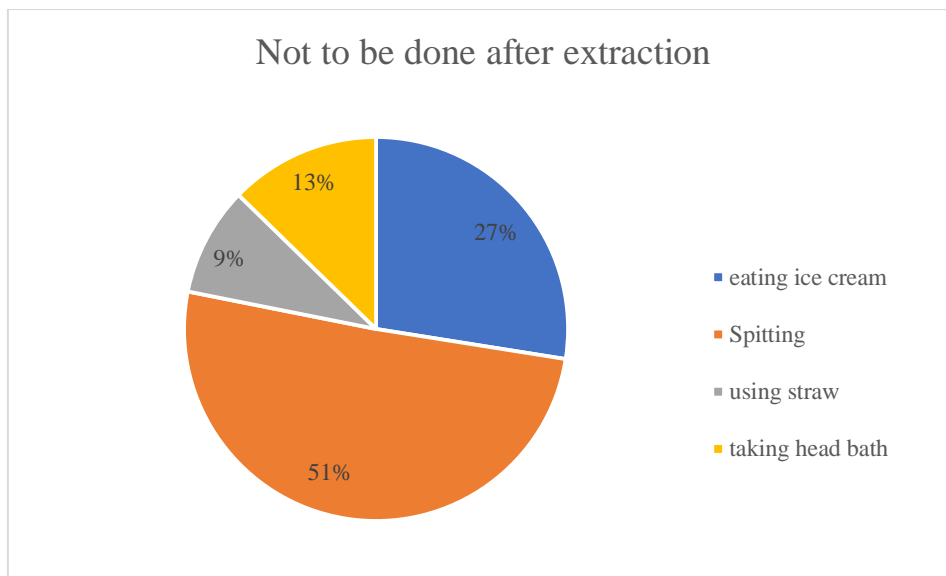


Fig. 8: Not to be done after extraction

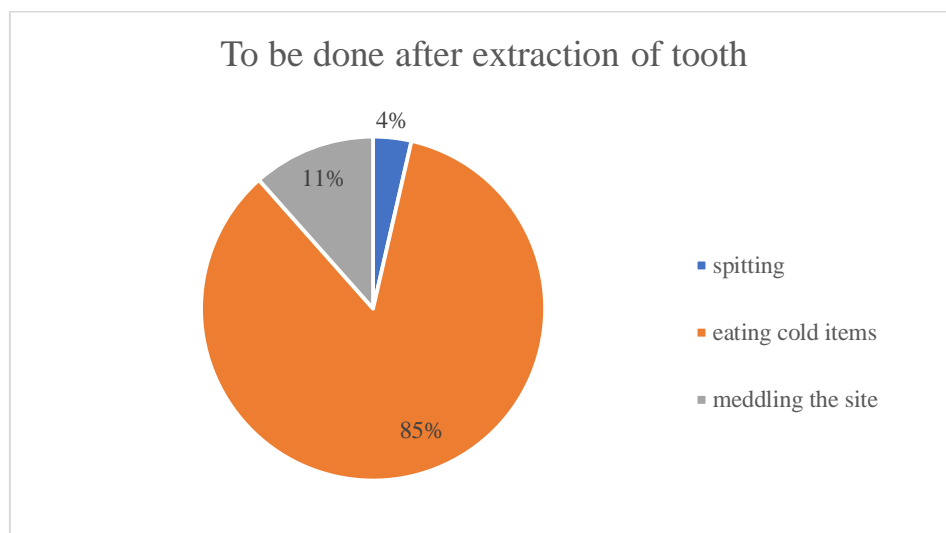


Fig. 9: To be done after extraction of tooth

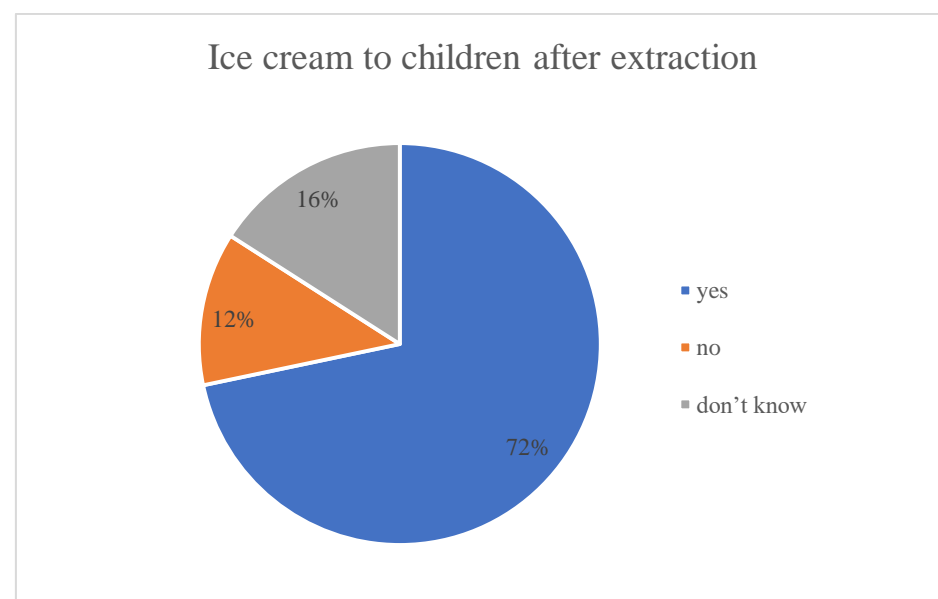


Fig. 10: Ice cream to children after extraction

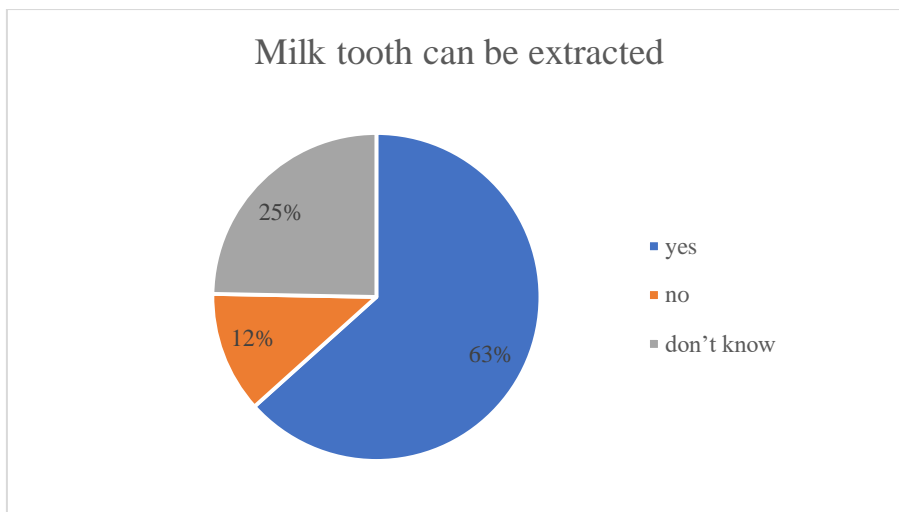


Fig. 11: Milk tooth can be extracted

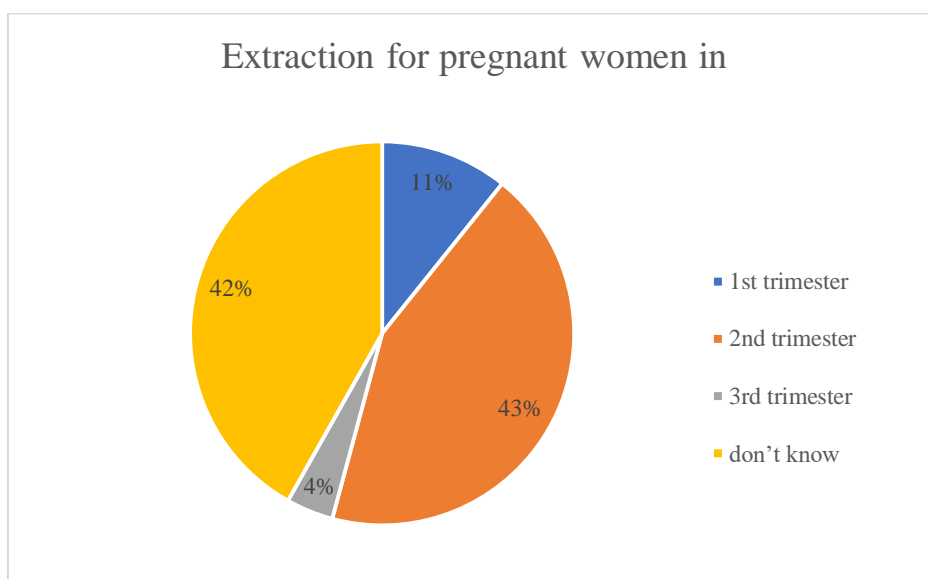


Fig. 12: Extraction for pregnant women in

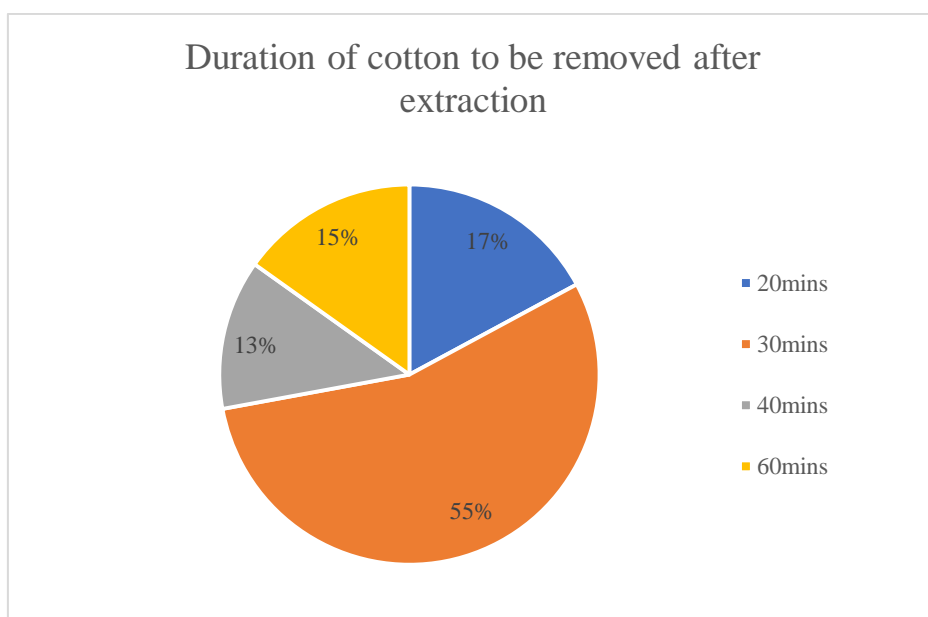


Fig. 13: Duration of cotton to be removed after extraction

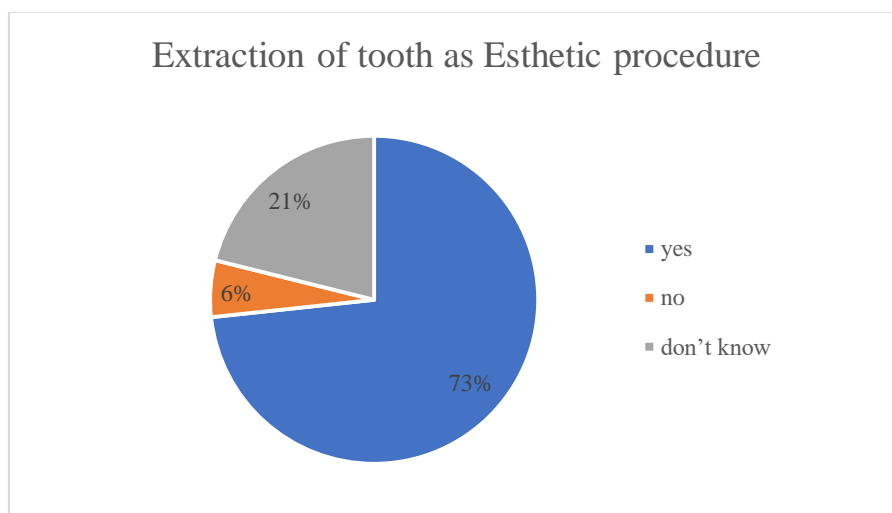


Fig. 14: Extraction of tooth as Esthetic procedure

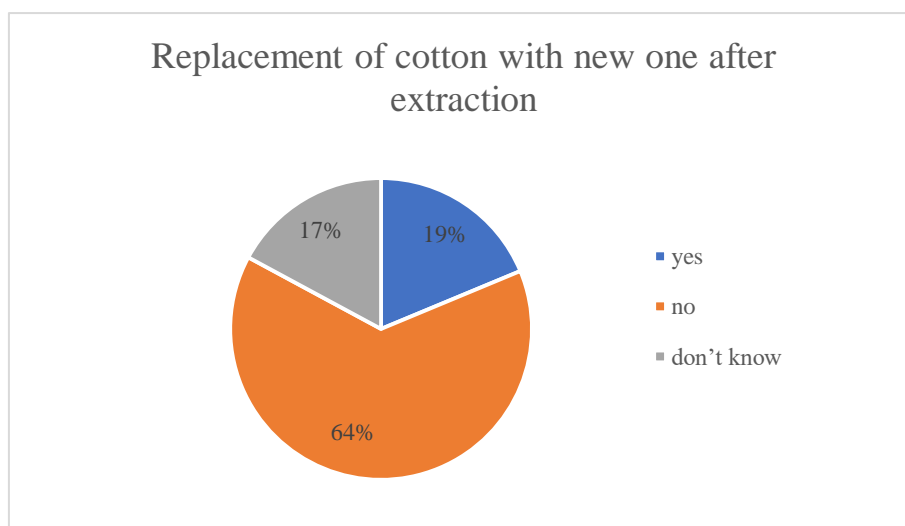


Fig. 15: Replacement of cotton with new one after extraction

### V. DISCUSSION

Exodontia or tooth extraction is defined as the painless removal of a whole tooth or tooth root, with minimal trauma to the investing tissues, so that the bone heals uneventfully (5). Before the discovery of antibiotics, exodontia was a preferred treatment. Dentistry was not a separate profession at that time and mainly the barbers were extracting the tooth popularly known as ‘barber surgeons’ (6).

**Based on the knowledge about dental extraction obtained from the study, 91.24% of the people were aware that extraction is a dental procedure** and in the study a question was raised regarding the general populations’ nature of visiting dentist in which the outcome was **about 70.52% of people undergo routine dental checkup.**

Exodontia is carried out for various reasons such as Dental caries, any severe pulp or periapical pathology, severe periodontal disease, orthodontic reasons, preprosthetic extractions, Fractured Teeth, Root Fragments, Supernumerary Teeth, Retained Deciduous Teeth, Impacted Teeth, Tooth in fracture line, Teeth associated with

pathologies, Teeth in firing line of radiations (7). **During the assessment, About 38.25% of people are hesitant to extract tooth due to various reasons.** Dental extraction is one of the dental treatments that may cause dental anxiety easily in majority of population. This may be because of the use of syringe for administration of local anesthesia. Dental anxiety can be defined as a state where an individual is evoked and prepared for something to happen, with a non-specific feeling of apprehension, associated with abnormal conditions.(8) Dental anxiety patients can be categorized into four groups: the ones that are anxious about a specific stimuli, the ones that are distrustful of dental clinicians, the ones that are generally anxious about most things, and the ones that are frighten that medical emergencies might occur during their dental treatment.(9)

**About 84.06% of people know that extraction can be done in cases of deep cavity, mobile tooth and also impactions. Also, around 73.31% of people are aware that extraction of tooth can also be done for esthetic purposes.**

Extractions are routinely used in orthodontics as a method of gaining space to correct the crowding or proclination of teeth.(10) There are few studies showing that the arch width is not necessarily narrow in patients who underwent extraction of tooth.(11, 12) On the other hand, few say that extraction sometime leads to constriction of the dental arches and also reduces the fullness of the dentition when smiling, which in turn increases the buccal corridor that may affect the smile esthetics.(13,14)

The concern about doing procedures during the **FIRST TRIMESTER** is twofold. First, the developing child is at a greatest risk which is posed by teratogens during organogenesis, and second, during the first trimester, it is known that as many as one in five pregnancies undergo spontaneous abortions. By the **SECOND TRIMESTER**, the organogenesis is complete, and the risk to the foetus is low. During the **THIRD TRIMESTER**, the uterus expands with the growing foetus and the placenta, it comes to lie directly over the inferior vena cava, the femoral vessels, and the aorta. If the mother is positioned supine for the procedures, the weight of the gravid uterus could apply enough pressure to impede a blood flow through these major vessels and to cause a condition which is called supine hypotension (15). Hence position of the patient is of high concern during third trimester. So its ideal to carry out emergency and unavoidable dental procedures during the second trimester of pregnancy. In our study it is seen that **About 41.83% of people do not know when extraction can be done in pregnant women and around 43.43% of people are aware that extraction can be done during 2nd trimester in pregnant women.**

The physiological bleeding time is 2-9mins, and the hemostasis is achieved adequately in the extracted socket in about 10mins in large population of healthy individuals (16). As there is no accepted time for hemostasis in the socket but the estimation range is 20 – 40 mins, it is recommended to apply pressure over gauze for 30mins at the site of extraction socket in healthy individuals. **Approximately 54.98% of people know that the cotton can be removed after 30 minutes after extracting a tooth and around 18.73% of people think that the cotton has to be replaced with a new one.**

## VI. CONCLUSION

As discussed previously, extraction of teeth is comparatively inexpensive, so people with economic concern choose extraction as the solution for majority of dental problems instead of other conservative treatments. So through this questionnaire study, knowledge and understanding of extraction is evaluated. Based on the results of this study, it is concluded that majority of general population are aware with the basic knowledge about the extraction procedure and its post operative care, however there are some misconceptions seen among the crucial components of extraction procedure. This shows that more awareness needs to be created among the general public regarding extraction along its pre and post operative care through educational programs and may also incorporate basic dental knowledge in school curriculum.

## REFERENCES

- [1.] Tariq Alsheneifi BDS Christopher V. Hughe. Reasons for dental extractions in children.
- [2.] Cahen PM, Frank RM, Turlot JC. A survey of the reasons for dental extractions in France. *J Dent Res.* 1985 Aug;64(8):1087-93. doi: 10.1177/00220345850640081401. PMID: 2862168.
- [3.] Aida J, Ando Y, Akhter R, Aoyama H, Masui M, Morita M. Reasons for permanent tooth extractions in Japan. *J Epidemiol.* 2006 Sep;16(5):214-9. doi: 10.2188/jea.16.214. PMID: 16951541; PMCID: PMC7683702.
- [4.] Chrysanthakopoulos NA. Reasons for extraction of permanent teeth in Greece: a five-year follow-up study. *Int Dent J.* 2011 Feb;61(1):19-24. doi: 10.1111/j.1875-595X.2011.00004.x. PMID: 21382029; PMCID: PMC9374823.
- [5.] Howe GL. *The extraction of teeth.* 2nd ed. Bristol: J Wright; 1974.
- [6.] Klingberg G. *Cognitive behavioral therapy for dental phobia and anxiety.* 2nd ed. New York: Wiley; 2013. *Dental anxiety in children and adolescent.*
- [7.] Kumar A. *Dentistry in historical perspective.* *IJOCR.* 2013;1(2):51–4.
- [8.] Jain, A. (2021). *Principles and Techniques of Exodontia.* In: Bonanthaya, K., Panneerselvam, E., Manuel, S., Kumar, V.V., Rai, A. (eds) *Oral and Maxillofacial Surgery for the Clinician.* Springer, Singapore.
- [9.] Maulina T, Djustiana N, Shahib MN. The Effect of Music Intervention on Dental Anxiety During Dental Extraction Procedure. *Open Dent J.* 2017 Oct 31;11:565-572. doi: 10.2174/1874210601711010565. PMID: 29238417; PMCID: PMC5712637.
- [10.] Rai, Ambesh & Yadav, Bipin. (2015). *Facilitating Orthodontic Teeth Extraction - A Technique Suggestion.* *The Saudi Journal for Dental Research.* 7. 10.1016/j.sjdr.2015.10.001.
- [11.] Paquette DE, Beattie JR, Johnston LE Jr. A long-term comparison of nonextraction and premolar extraction edgewise therapy in "borderline" Class II patients. *Am J Orthod Dentofacial Orthop.* 1992 Jul;102(1):1-14. doi: 10.1016/0889-5406(92)70009-Y. PMID: 1626523.
- [12.] Luppanapornlarp S, Johnston LE Jr. The effects of premolar-extraction: a long-term comparison of outcomes in "clear-cut" extraction and nonextraction Class II patients. *Angle Orthod.* 1993 Winter;63(4):257-72. doi: 10.1043/0003-3219(1993)063<0257:TEOPAL>2.0.CO;2. PMID: 8297050.
- [13.] Spahl T.J., Witzig J.W. Vol. 1. PSG Publishing Co; Littleton, Massachusetts: 1987. *The Clinical Management of Basic Maxillofacial Orthopedic Appliances.*
- [14.] Dierkes JM. The beauty of the face: an orthodontic perspective. *J Am Dent Assoc.* 1987 Dec;Spec No:89E-95E. doi: 10.14219/jada.archive.1987.0313. Erratum in: *J Am Dent Assoc* 1988 May;116(6):614. PMID: 3480311.



- [15.] Vt H, T M, T S, Nisha V A, A A. Dental considerations in pregnancy-a critical review on the oral care. *J Clin Diagn Res.* 2013 May;7(5):948-53. doi: 10.7860/JCDR/2013/5405.2986. Epub 2013 Mar 21. PMID: 23814753; PMCID: PMC3681080.
- [16.] Kumar S, Paul A, Chacko R, Deepika S. Time required for haemostasis under pressure from dental extraction socket. *Indian J Dent Res.* 2019 Nov-Dec;30(6):894-898. doi: 10.4103/ijdr.IJDR\_93\_18. PMID: 31939367.