Journal of Neonatal Surgery
ISSN(Online): 2226-0439
Vol.13 , (2024)
https://www.jneonatalsurg.com

OPEN ACCESS

Analysis of Extractions done in primary teeth by UG students in different age groups

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Cite this paper as: Jeswin Immanuel, Dr.Dinesh (2024) Analysis of Extractions done in primary teeth by UG students in different age groups..Journal of Neonatal Surgery, 13, 2463-2467

ABSTRACT

Introduction: The extraction of primary teeth represents a fundamental procedure within the realm of dentistry, bearing a unique significance as both a clinical and pedagogical practice. This article delves into the intricate domain of extracting primary teeth, placing a particular lens on the endeavours undertaken by undergraduate (UG) dental students

Materials and method: Dental records were screened for patients aged under 18 years who had undergone primary tooth extraction in private dental college.

Discussion: The reasons for extracted primary teeth varied among different age groups. However, extraction due to dental caries and its sequelae was remarkable for all age groups, with the highest number being in the age group 7–9 years, particularly the second primary molars, indicating the high incidence of dental caries

AIM:Aim of the study is analysis of extraction done in primary teeth by UG students in different age groups

Keywords: Extraction, primary tooth, UG student, Gender, Age

INTRODUCTION

The extraction of primary teeth represents a fundamental procedure within the realm of dentistry, bearing a unique significance as both a clinical and pedagogical practice. This article delves into the intricate domain of extracting primary teeth, placing a particular lens on the endeavours undertaken by undergraduate (UG) dental students.(1) These students, poised at the threshold of their dental careers, often engage in extracting primary teeth as a vital aspect of their training. This significant step in their academic journey demands an in-depth understanding of paediatric dentistry, encompassing specialised techniques, patient interaction, and a comprehensive awareness of developmental factors.(1,2). The primary dentition, a precursor to the permanent dentition, necessitates a nuanced approach during extraction procedures. The anatomical variations, root morphology, and potential challenges associated with primary teeth require a skillful and attentive technique to ensure optimal outcomes.(3) UG students, in the pursuit of honing their clinical skills, embark on this journey of learning and mastering the art of extracting primary teeth. It is within this educational context that the analysis of extractions by UG students gains paramount importance. (1) In addition to the practical aspects, this analysis also explores the educational implications of incorporating extraction procedures into the undergraduate dental curriculum. It delves into how such experiences enrich the educational journey, shaping competent and compassionate dental professionals. Ultimately, this exploration seeks to elevate the discourse surrounding the training of future dentists, promoting a more proficient and patient-centric approach in the realm of paediatric dentistry(4). This article aims to provide a comprehensive insight into the multifaceted aspects of extractions in primary teeth performed by UG dental students with comparison with age group, type of teeth and gender. It navigates through the foundational principles, essential techniques, and ethical considerations that underpin the practice. Furthermore, it highlights the challenges encountered by students during these procedures and the

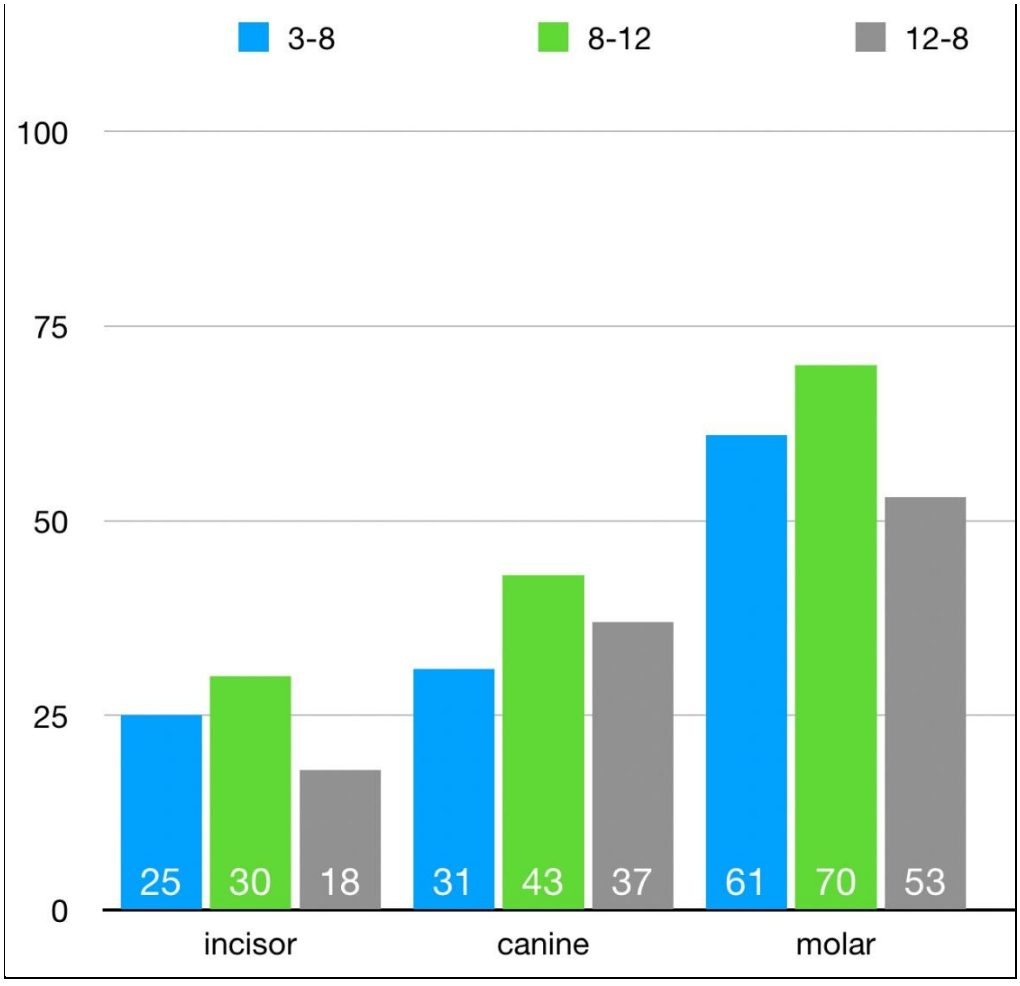
strategies employed to mitigate them effectively. The aim of the study is analysis of extraction done in primary teeth by UG students in different age groups

MATERIALS AND METHODS:

This was a retrospective study of paediatric patients who had tooth extraction at the

Private dental college. Patient records were retrieved from paediatric documents, DIAS (Dental Information Archiving System). Dental records were screened for patients aged from 3-18 years and divided among age groups who had undergone primary tooth extraction in private dental college. Data were collected on age group, gender, and type of tooth extracted. Descriptive statistics and bivariate association analysis were performed.

RESULT:



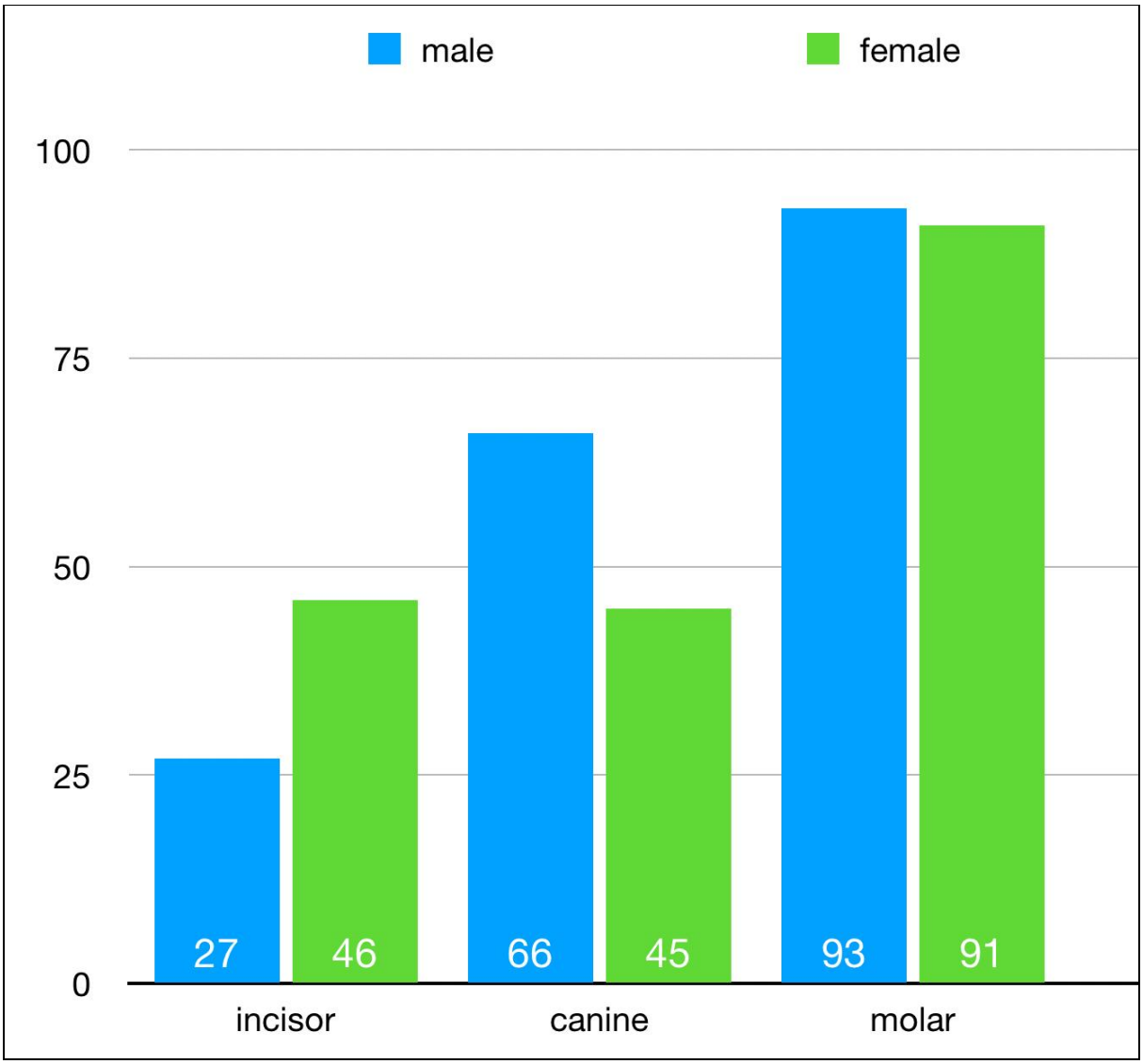
GRAPH-1: Graphical representation of comparison between male and female.

Among the 3 age groups, molars were more extracted in more numbers followed by canine and incisors. 34% of incisors were extracted from 3-8 age group, 41% of incisors were extracted from 8-12 age group and 24% of incisors were extracted from 12-18 age groups. 27% of canine were extracted from 3-8 age group, 38% of canine were extracted from 8-12 age group, 33% of canine were extracted from 12-8 age group. 33% of molars were extracted from 3-8 age group, 38% of molars were extracted from 8-12 age group and 28% of molars were extracted from age group between 12-18.

Data collected among the three age groups:

Age Group	Incisor	Canine	Molar
3-8	25	31	61
8-12	30	43	70
12-18	18	37	53

Table-1: Tabulation representation of comparison between different age groups



Graph-2:Graphical representation of comparison between incisor canine and molar.

Among Comparison between male and female molars and canines were more extracted in males than females. Incisors were extracted more number in females than males.

Age Group	Incisor	Canine	Molar
Male	27	66	93
Female	46	45	91

TABLE-2: Tabulation for Gender comparison

DISCUSSION:

The analysis of extractions performed by UG students on primary teeth is a multifaceted topic that encompasses skill acquisition, patient safety, supervision, feedback, curriculum enhancement, and research opportunities. In a related research which was done for analysis of pattern and reason for extraction of primary teeth, they have concluded that molars have been more extracted. The reasons for extracted primary teeth varied among different age groups(5,6) However, extraction due to dental caries and its sequelae was remarkable for all age groups, with the highest number being in the age group 7–9 years, particularly the second primary molars, indicating the high incidence of dental caries. In this study for children in the under six years group, the cause was likely due to severe early childhood caries, whereas for the children over six years it may be due to the involvement of caries as well as the presence of some sign of physiological root resorption in the radiograph (1) Through meaningful discussion and subsequent actions, dental education can continually improve, ensuring competent and safe practitioners in the field. Analysis of extractions done in primary teeth by undergraduate (UG) dental students is an important area of study that warrants discussion. In another research done under the heading Reason for extraction in primary teeth among 5-12 years school children in haryana, india which was cross-sectional study, they have concluded that 20.4% children were having tooth loss due to various reasons.(1,7) The main reason for extraction was found to be caries in 64.3% followed by trauma in maxillary teeth among 43.02% of children. This analysis can provide valuable insights into the proficiency and competence of UG students in performing this specific dental procedure. Success Rates: Assessing the percentage of successful extractions, including complete removal of the primary tooth without complications or damage to surrounding tissues(4). Techniques Used: Reviewing the methods employed by students during extractions, such as local anaesthesia administration, forceps selection, and proper tissue handling. In another article with the title nature and pattern of primary teeth extractions in tertiary care hospital setting in south india, they have concluded that the most common reason for extraction was dental caries followed by traumas. Complications Encountered: Identifying any complications during or after the extraction procedure, such as bleeding, damage to adjacent teeth or soft tissues, or postoperative infections.(1,7,8) Patient Outcomes: Evaluating patient satisfaction and healing outcomes following extractions, including pain management, wound healing, and any subsequent follow-up care required. Supervision and Training: Considering the level of supervision provided by faculty members during extraction procedures and the adequacy of training provided to students in performing extractions on primary teeth. Continuous Improvement: Identifying areas for improvement in the curriculum or training protocols to enhance student proficiency and patient outcomes in primary tooth extractions.

CONCLUSION:

There were significant differences in the patterns and reasons for the extraction of

primary teeth in the different age categories among different tooth from the data collected. Through rigorous evaluation and feedback, dental education institutions can continuously enhance the quality of training, ensuring that future dental practitioners are well-prepared to perform extractions with proficiency, prioritising patient safety and satisfaction.

ACKNOWLEDGEMENT:

The authors would like to thank all the participants for their valuable support and

Authors dental institution for their support to conduct.

CONFLICT OF INTEREST:

All the authors declare that there was no conflict of interest in present study.

AUTHORS CONTRIBUTION:

S.Jeswin Immanuel: literature search, data collection, analysis, manuscript drafting.

Dr.Dinesh Data verification, manuscript drafting

FUNDING:

The present project is sponsored by Saveetha Institute of Medical and Technical Sciences, SaveethaDental College and

Hospitals, Saveetha University

FUTURE SCOPE:

Enhanced Education and Training: The findings from the analysis can be used to enhance the education and training of UG dental students. By identifying specific areas where students may struggle or require additional support, dental schools can implement targeted interventions, such as simulation exercises, hands-on workshops, or improved instructional materials, to better prepare students for tooth extraction procedures

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