

Assessment of Parental Awareness on the Management of Avulsed Teeth: A Survey Study

Dr. Spandana Patil Bujuranpallikar^{1*}, Dr. Pentrala Dinesh Babu¹, Dr. Devara Surya Prakash¹, Dr. Mittamiddi Rashmitha Reddy¹, Dr. Dutta Lalitha Devi²

¹Passed Intern Kamineni Institute of Dental Sciences Sreepuram, Narketpally, Nalgonda Dist, Telangana-508254

²Senior Lecturer, Kamineni Institute of Dental Sciences Sreepuram, Narketpally, Nalgonda Dist, Telangana-508254

DOI: [10.36348/sjodr.2024.v09i06.001](https://doi.org/10.36348/sjodr.2024.v09i06.001)

| Received: 13.04.2024 | Accepted: 16.05.2024 | Published: 05.06.2024

*Corresponding author: Dr. Spandana Patil Bujuranpallikar

Passed Intern Kamineni Institute of Dental Sciences Sreepuram, Narketpally, Nalgonda Dist, Telangana-508254

Abstract

This study assessed parental awareness of avulsed tooth management among 300 participants at Kamineni Institute of Dental Sciences, Nalgonda. Results revealed significant gaps in understanding, with only 0.66% indicating they would replant an avulsed tooth, and 87.3% disagreed that it could be replanted. Most participants were uncertain about key aspects, such as replantation and tooth storage. These findings emphasize the need for targeted educational interventions to improve parental preparedness for dental emergencies. Addressing these knowledge gaps can empower individuals to provide appropriate first aid and seek timely professional care, ultimately improving outcomes for dental trauma patients.

Keywords: Nalgonda, tooth management, avulsed teeth, dental emergencies.

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Avulsed or knocked-out teeth are common dental emergencies, particularly among children and adolescents, often resulting from accidents or sports injuries. Proper management of avulsed teeth is crucial to prevent long-term dental complications such as infection and tooth loss. The first 30 minutes after a tooth avulsion are critical, as immediate and correct action can significantly impact the chances of successful re-implantation and preservation of dental function. Despite the importance of timely intervention, studies have indicated a lack of parental awareness regarding the appropriate immediate management of avulsed teeth. Moreover, limited research exists on awareness and knowledge of avulsed tooth management specifically within the South Indian population. Understanding the current level of parental awareness and knowledge regarding avulsed tooth management is essential for developing targeted educational interventions. These interventions aim to empower parents with the necessary skills to provide appropriate first aid and seek timely professional dental care for their children in the event of a dental emergency. The findings of this research will contribute to enhancing parental awareness and improving outcomes for children experiencing avulsion

injuries in this region. This study aims to fill the gap in existing literature by providing insights into the specific challenges and needs of parents in South India concern. The data collected will inform the development of tailored educational materials and interventions that address the identified gaps in understanding and empower parents to take appropriate action in dental emergencies.

MATERIALS AND METHODS

A 16-question questionnaire was drafted and finalized, consisting of four basic demographic questions (age, gender, educational level, and number of children) and 12 questions about the management of avulsed teeth. The sample size was determined to be 300. The study population comprised patients or parents attending the Kamineni Institute of Dental Sciences, Nalgonda.

Inclusion Criteria were as follows -

1. Parents or legal guardians of children aged between 20 to 50 years.
2. Participants with at least basic literacy skills to comprehend and respond to study materials.
3. Willingness to participate voluntarily and provide informed consent.

- Parents, regardless of prior knowledge or experience of dental avulsion, as well as parents of children with or without any history of dental trauma or avulsion, were included.

Exclusion criteria consisted of-

- Parents unable to provide informed consent due to cognitive impairments or decision-making incapacity.
- Participants unwilling to participate or comply with study procedures, such as completing questionnaires.
- Parents who did not have primary responsibility for the dental care or emergency management of their children, such as non-custodial parents or guardians without regular contact with the child.

Data collection involved administering the questionnaire through structured surveys to assess parental awareness and knowledge regarding avulsed tooth management and all participants provided informed consent before participating. The questions included as follows and 3 options were given as YES, NO or MAYBE for all the questions.

- Question 1 – Does your child/ children have any history of knocked-out tooth?
 Question 2 – Do you know how to treat traumatic dental injuries in a child?
 Question 3- According to you is it important to learn about traumatic dental injuries?
 Question 4- Would you like to receive more information in order to be prepared in such cases?
 Question 5 – Would you stop the bleeding by compressing a cloth over the injury?
 Question 6 – Would you look for the lost tooth?
 Question 7 – Would you carefully wash the tooth and put it back in the socket?
 Question 8 – Do you think we can replant an avulsed tooth in its socket?
 Question 9 – Do you know that you can clean a dirty avulsed tooth prior to replantation?

Question 10 – Do you know that we can save the tooth by replanting it within 30 mins of injury?

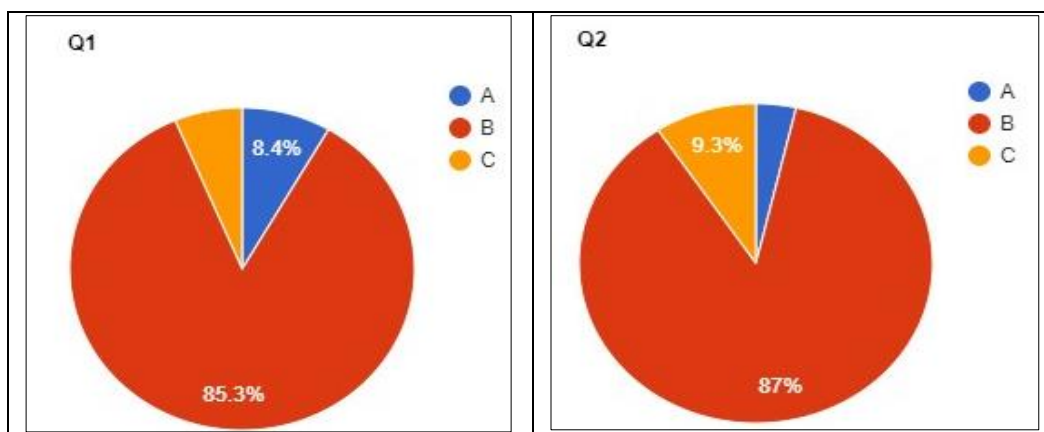
Question 11 – Do you know that avulsed tooth should be stored in a medium to save the tooth?

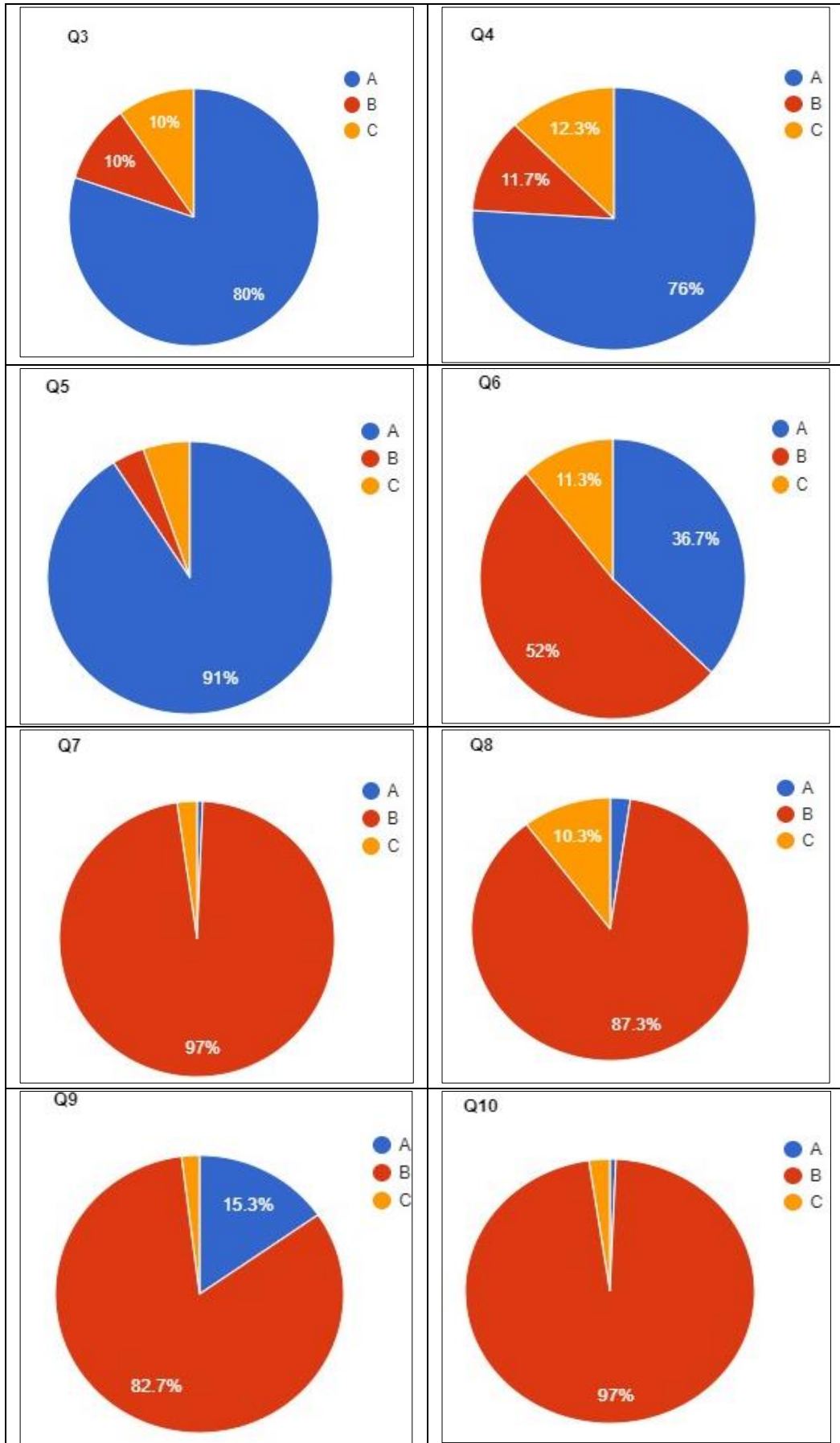
Question 12 – Do you know that there is an app named “TOOTH SOS” available in the play store?

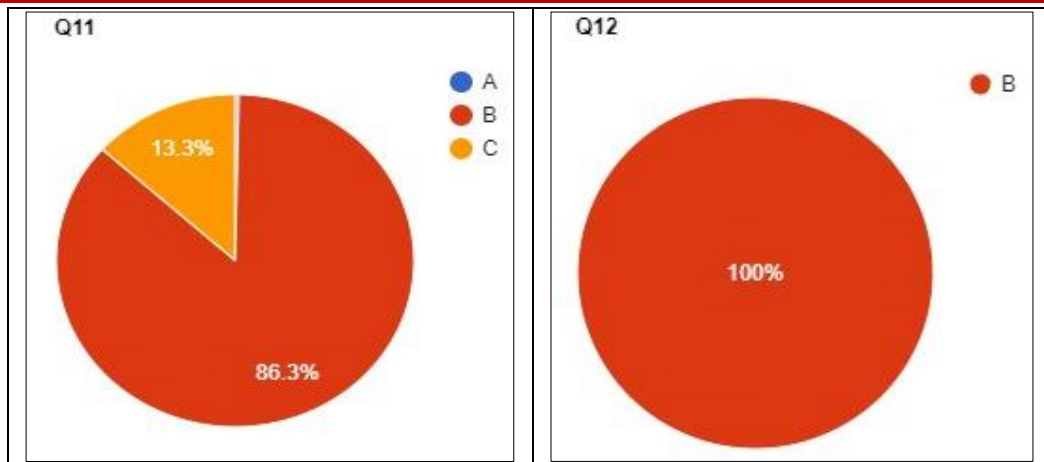
RESULTS

In the analysis of 300 participants, demographic characteristics revealed a diverse representation. Age distribution showed 20-30 years (20%), 31-40 years (53%), and 41-50 years (27%). Gender distribution comprised 152 males (50.7%) and 148 females (49.3%). Educational levels varied, with 11.7% having no education, 40.3% high school graduates, 39.7% undergraduates, and 8.3% postgraduates. In terms of family size, 0.67% had no children, 30.3% had one child, 51% had two children, 16% had three children, and 2% had four children.

In the analysis of the main questions, findings highlighted significant gaps in knowledge regarding the management of avulsed teeth among the participants. Only 0.66% were aware of the correct procedure of carefully washing and replanting a tooth in its socket, while 97% expressed a lack of awareness, with 2.3% uncertain. Moreover, 2.3% believed an avulsed tooth can be replanted in its socket, contrasting with 87.3% who disagreed and 10.3% uncertain. Additionally, 15.3% knew that a dirty avulsed tooth can be cleaned prior to replantation, while 82.7% did not, and 2% were uncertain. Knowledge regarding the time frame for replantation was also lacking, with only 0.66% aware that a tooth can be saved by replanting it within 30 minutes of injury, while 97% did not know, and 2.3% were uncertain. Moreover, only 0.33% knew that an avulsed tooth should be stored in a medium to save the tooth, while 86.3% were unaware, and 13.3% uncertain. Notably, none of the participants were aware of an app named "TOOTH SOS" available in the Play Store.







CONCLUSION

In this study, we examined the awareness and knowledge of dental trauma management among a sample of 300 participants. Our findings revealed significant gaps in understanding, with only a minority demonstrating awareness of proper dental trauma management. The majority of participants showed limited awareness of crucial aspects of dental trauma management. For instance, only 0.66% indicated they would carefully wash and replant an avulsed tooth, while 97% stated they would not. Similarly, 87.3% disagreed that an avulsed tooth can be replanted in its socket, with only 2.3% believing it was possible. Moreover, a significant proportion of participants were uncertain about key aspects of dental trauma management. For example, 10.3% were uncertain about whether an avulsed tooth can be replanted, and 13.3% were uncertain about the necessity of storing the tooth in a medium. Interestingly, while 76% expressed a desire to receive more information on the topic and there was a complete lack of knowledge about available resources such as the "TOOTH SOS" app. This suggests a need for improved dissemination of educational materials to the public.

In conclusion, our findings highlight the urgent need for targeted educational interventions to improve awareness and knowledge of dental trauma management. By addressing these gaps, we can empower individuals to provide appropriate first aid and seek timely professional care, ultimately improving outcomes for dental trauma patients. Further research and community-based initiatives are warranted to bridge these knowledge gaps and ensure better preparedness for dental emergencies.

DISCUSSION

Parental awareness of emergency management of avulsed permanent teeth in children and adolescents is critically important yet often lacking, as highlighted by various studies. For instance, research conducted by M. Al Sheeb, F. A. Al Jawa, and H. Nazzal in Qatar revealed

that parents had a mean knowledge score of only 23%, indicating significant deficiencies in understanding. Similarly, in Lagos, Nigeria, Sanu OO and Utomi IL found that while over 90% of parents recognized the need for urgent professional help following an avulsion injury, their knowledge regarding the appropriate transport medium for the avulsed tooth was poor, with only a small percentage aware that milk was recommended. Our study's findings further reinforce this pattern of limited awareness among parents. We found that only 0.33% of participants were aware that an avulsed tooth should be stored in a medium to preserve it, while a large majority were either unaware or uncertain about this crucial aspect of dental trauma management. Moreover, a substantial proportion of participants expressed uncertainty or disbelief regarding other key aspects, such as the possibility of replanting an avulsed tooth.

These collective findings underscore the urgent need for targeted educational interventions aimed at improving parental knowledge and preparedness in managing dental emergencies, particularly those involving avulsed permanent teeth. By addressing these knowledge gaps, individuals can be empowered to provide appropriate first aid and seek timely professional care, ultimately leading to improved outcomes for dental trauma patients. Furthermore, additional research and community-based initiatives are warranted to further investigate these issues and ensure better preparedness for dental emergencies among parents and caregivers.

REFERENCES

- Al Sheeb, M., Al Jawa, F. A., & Nazzal, H. (1990). Parental awareness of the emergency management of avulsed teeth in children.
- Raphael, S. L., & Gregory, P. J. (1990). Parental awareness of the emergency management of avulsed teeth in children.
- Sanu, O. O., & Utomi, I. L. (2005). *Parental awareness of emergency management of avulsion of permanent teeth of children in Lagos, Nigeria*.