

Teachers' Knowledge and Attitude on Schoolchildren's Oral Health in Nalgonda District, Telangana, India – A Cross-Sectional Study

Gowtham Pallamala¹, Saraswathi Srikanth Raju², Madhuri Allam³, M. Sai Divya¹, Kiranmayi Merum², D. Vidhyadhar⁴

¹MDS, Consultant Pedodontist, Departments of ²Pedodontics and ⁴Prosthodontics, Kamineni Institute of Dental Sciences, Nalgonda, Telangana, India,

³MDS, Consultant Endodontist, Hyderabad, Telangana, India

Abstract

Introduction: The need for the promotion of oral health in schools is discernible and it can easily be integrated by teachers, provided they have an optimistic attitude toward schoolchildren's oral health. Hence, the aim of the study was to evaluate the teacher's knowledge and attitude toward their schoolchildren's oral health care. **Materials and Methodology:** A sample of 226 schoolteachers was selected randomly from both rural and urban areas of Nalgonda district, Telangana. A structured questionnaire was formulated based on their knowledge, attitude, and practice regarding oral health and trauma management. The data were collected and tabulated for statistical analysis. **Results:** 82.3% of teachers do not know that there is a specialist dealing with children's oral health and dental problems. 95.1% had an opinion that it is important to have an educational program in oral health and 80.5% intended to attend any educational program on oral health. 36.3% of teachers encountered a dental trauma in children at a school. Only 17.3% of teachers had knowledge that children with bulged/proclined teeth are more prone to injury during trauma and 43.8% of teachers had a knowledge that they should take to a pedodontist when a child underwent trauma to teeth. **Conclusion:** Teachers have inadequate knowledge regarding oral hygiene and trauma management in children. Teacher training programs should be conducted which makes a great difference by educating children about effective oral hygiene measures and by constantly motivating them.

Keywords: Oral hygiene, schoolchildren, schoolteachers, trauma management

INTRODUCTION

Oral disease can be considered a public health problem due to its high prevalence and significant social impact. Traumatic dental injuries (TDIs) majorly occur in schoolchildren during their playtime. Children who suffer from poor oral health are 12 times more likely to have restricted activity days, including missing school, than those who do not. Annually, more than 50 million hours are lost worldwide from schools due to oral diseases.^[1,2] To prevent oral diseases among children, it is crucial to understand the main influencing factors and plan for prevention. In this regard, the World Health Organization in 1995 has launched a global school health initiative in which the importance of schools in delivering health education to schoolchildren was highlighted.^[3] The schools can provide an effective forum to enhance general as well as oral health

awareness among children.^[4] Teachers have a significant role in both the school and neighboring community. Promoting healthy habits among children in schools will translate to change in their homes and ultimately bring about tangible community transformation. The instructions imparted by the teachers are generally followed more religiously by the children. Teachers need to have a sound knowledge regarding constructive oral health habits to train their students and are primary responders to emergency TDIs as they are in proximity to children. Hence, this study was conducted to know the knowledge and attitude of schoolteachers regarding their schoolchildren's oral health and emergency management in traumatic injuries.

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Address for correspondence: Dr. M. Sai Divya,

3-7-167/1, Rajeev Nagar, Suryapet - 508 213, Suryapet District,
Telangana, India.

E-mail: divya.mahali@gmail.com

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MATERIALS AND METHODOLOGY

The study was approved by the Ethical Committee of Kamineni Institute of Dental Sciences, Narketpally. A simple random sampling strategy was used to select the schools from in and around Nalgonda district. A sample of 226 schoolteachers are selected from rural and urban areas as well as both government and private aided. Before commencing the study, prior permission was procured from the school authorities. All the schoolteachers who were present on that particular day with a minimum teaching experience of 3 years were included in the survey. The schoolteachers not willing to participate were excluded from the survey.

A questionnaire based on children’s oral health-care and emergency trauma management was formulated in English and their local language. The schoolteachers were asked to fill the form by themselves without any coercion after explaining the purpose of the study. The collected data were tabulated and then statistically analyzed.

RESULTS

Teachers’ knowledge, attitude, and practice related to schoolchildren’s oral hygiene

In our study, it was depicted that 72.6% of teachers are interested in educating students about oral health by dentists, 11.9% are willing to educate students by themselves by being well trained by dentists, 14.6% opted to educate by partnership among faculty staff, and 0.9% not interested to educate. Regarding ‘Would you like to assist the dentist in intra- and extra class activities for the prevention of dental caries’, 7.1% teachers opted ‘yes’, 85.8% teachers opted ‘no’ and 7.1% teachers opted ‘do not know’. Regarding “guidance of preventing dental caries in school phase is a task of” 4.9% chosen parents, 92.5% teachers were enthusiastically provided with the help of school oral health examination and 2.7% preferred “others.” 32.3% of teachers advised parents to seek dental treatment for their children, 60.6% have not advised, and 7.1% said that they do not know to advice. 17.7% know that there is specialization in dealing with children’s dental problems and 82.3% do not know. Concerning the question is it important to have an educational program in oral health, 95.1% of teachers chosen “yes,” 4% opted “no,” and 0.9% “do not know.” 80.5% liked to attend oral health educational program and 19.5% have not bothered [Table 1].

Emergency dental trauma management during school hours

Related to managing a child who underwent trauma to the teeth, 50.4% of teachers answered that they will take to a general dentist, 43.8% will take to a pedodontist, and 3.1% to a general physician and 2.7% claimed that they “do not know.” With respect to managing when teeth got avulsed, 11.9% of teachers opted that they will discard it, 8.8% of teachers told that they will “keep as it is,” 4.9% will store it in milk, 12.8% will store it in water, and 61.5% will refer to a dentist. Beholding the queries like children with bulged/proclined teeth

Table 1: Knowledge attitude practice of schoolteachers regarding children’s oral hygiene

Question	Frequency (%)
1. Do you think it is important to educate students at schools about oral health	
Yes, provided it is done by dentist	164 (72.6)
Yes, provided it is by properly trained teachers	27 (11.9)
Yes, provided it is in partnership among faculty staff	33 (14.6)
Do not know	2 (0.9)
Total	226 (100)
2. Would you like to assist the dentist in intra- and extra-class activities for the prevention of dental caries	
Yes	16 (7.1)
No	194 (85.8)
Do not know	16 (7.1)
Total	226 (100)
3. Guidance of preventing dental caries in school phase is a task of	
Parent	11 (4.9)
Teachers with help of OHE	209 (92.5)
Others	6 (2.7)
Total	226 (100)
4. Do you know that there is specialization in dealing with children’s dental problems	
Yes	40 (17.7)
No	186 (82.3)
Total	226 (100)
5. Do you think it is important to have an educational program in oral health	
Yes	215 (95.1)
No	9 (4.0)
Do not know	2 (0.9)
Total	226 (100)
6. Would you like to attend any educational program on oral health	
Yes	182 (80.5)
No	44 (19.5)
Total	226 (100)
7. Have you advised parents to seek dental treatment for their children	
Yes	73 (32.30)
No	137 (60.60)
Do not know	16 (7.10)
Total	226 (100.00)

OHE- Oral Health Examination

are more prone to injury during trauma, 17.3% of teachers claimed as “yes” and 82.7% answered “no.” Regarding “have you ever encountered a dental trauma in a child,” 36.3% of teachers opted “yes,” 41.2% of teachers said “no,” and 22.6% of teachers answered “do not know” [Table 2].

DISCUSSION

Oral health awareness among schoolteachers is crucial as they serve as barriers in introducing and imparting oral health knowledge to schoolchildren and their parents. This

Table 2: Knowledge attitude practice of schoolteachers regarding trauma management

Question	Frequency (%)
1. Have you ever encountered a dental trauma in a child	
Yes	82 (36.3)
No	93 (41.2)
Do not remember	51 (22.6)
Total	226 (100)
2. Do you know that children with bulged/proclined teeth are more prone to injury during trauma	
Yes	39 (17.3)
No	187 (82.7)
Total	226 (100)
3. How will you manage a child when a dental trauma occurs in school hours?	
Take to general dentist	114 (50.4)
Take to pedodontist	99 (43.8)
General physician	7 (3.1)
Do not know	6 (2.7)
Total	226 (100)
4. How will you manage when teeth got avulsed	
Discard it	27 (11.9)
Keep it as it is in socket	20 (8.8)
Store it in milk	11 (4.9)
Store it in water	29 (12.8)
Refer to dentist	139 (61.5)
Total	226 (100)

study presented a comprehensive view of the schoolteacher's knowledge, attitude, and practices on children's oral health and emergency management of TDIs in Nalgonda district, Telangana, India. In our study, most of the teachers do not know that there is a specialist dealing with children's oral health and dental problems; in contrast to our results, Gowdar *et al.*^[5] reported that many were aware of pediatric dentists. Almost all teachers had an opinion that it is important to have an educational program in oral health and are also showing enthusiasm to attend any educational program on oral health. These results were similar to studies conducted by Gowdar *et al.*^[5] and Tikare and AlQahtani.^[6] This attitude of the teachers will be helpful in arranging regular visits by the dentist to the school as a part of dental health education programs organized by dental colleges and other societies.

TDIs are highly prevalent from infancy to adolescence and often occur in schools, causing alterations in the child's facial development and psychological changes in behavior besides other complications.^[7,8] In our study, 36.3% of teachers encountered a dental trauma in a child. It is their knowledge of emergency procedures that are crucial in ensuring a better prognosis of the clinical treatment. In our study, only 17.3% of teachers had knowledge that children with bulged/proclined teeth are more prone to injury during trauma and 43.8% of teachers had a knowledge that they should take to a pedodontist when a child underwent trauma to teeth. Knowledge on trauma management to teachers is very poor, and educational programs

on management of trauma should be conducted. These results were similar to the study conducted by Nirwan *et al.*^[9] When asked about management of avulsion of teeth, only 8.8% of teachers had knowledge that avulsed teeth should keep it as it is in the socket and only 4.9% have an idea to store it in milk. Prognosis of avulsion depends on how quickly we replant back into socket, so teachers should be trained in management of avulsion which plays a major role in success of treatment. These results were similar to the studies conducted by Nirwan *et al.*^[9] and Prasanna *et al.*^[10]

CONCLUSION

Teachers had inadequate knowledge regarding oral hygiene maintenance and trauma management in children. As teachers are crucial to the implementation of school oral health education, they should possess adequate knowledge and skills to enable them to deliver the programs effectively. Teacher training programs should be conducted on a regular basis regarding oral hygiene and trauma management in children.

Limitations

Sample size of the study population must be increased, and many areas in India need to be covered to get a real picture of the knowledge, attitude, and awareness of the schoolteachers.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

- World Health Organization: Oral health promotion: An essential element of a Health-Promoting School, WHO information series on school health document eleven, 2003, Geneva.
- Amith HV, D'Cruz AM, Shirahatti RV. Knowledge, attitude and practice regarding oral health among the rural government primary school teachers of Mangalore, India. *J Dent Hyg* 2013;87:362-9.
- Ahmad MS. Oral health knowledge and attitude among primary school teachers of Madinah, Saudi Arabia. *J Contemp Dent Pract* 2015;16:275-9.
- The Status of School Health. Report of the School, Health Working Group and WHO Expert Committee on Comprehensive School Health Education and Promotion. Geneva: WHO; 1996.
- Gowdar IM, Aldamigh SA, Wabran MS, Althwaini AS, Alotman TA, Alnafisah AM. Knowledge and attitude of male schoolteachers towards primary dental care. *J Family Med Prim Care* 2020;9:1594-8.
- Tikare S, AlQahtani NA. Oral health knowledge and attitudes of primary school teachers toward school-based oral health programs in Abha-Khamis, Saudi Arabia. *Saudi J Oral Sci* 2017;4:72-7.
- Gábris K, Tarján I, Rózsa N. Dental trauma in children presenting for treatment at the department of dentistry for children and orthodontics, Budapest, 1985-1999. *Dent Traumatol* 2001;17:103-8.
- Mohandas U, Chandan GD. Knowledge, attitude and practice in emergency management of dental injury among physical education teachers: A survey in Bangalore urban schools. *J Indian Soc Pedod Prev Dent* 2009;27:242-8.
- Nirwan M, Syed AA, Chaturvedi S, Goenka P, Sharma S. Awareness in primary school teachers regarding traumatic dental injuries in children and their emergency management: A survey in South Jaipur. *Int J Clin Pediatr Dent* 2016;9:62-6.
- Prasanna S, Giriraju A, Narayan NL. Knowledge and attitude of primary school teachers toward tooth avulsion and dental first aid in Davangere city: A cross-sectional survey. *Int J Clin Pediatr Dent* 2011;4:203-6.