

# Communication as a Key for Imparting Oral Health Knowledge in Special Needs Patients Attending Special Schools in Sangareddy District in Telangana

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## ABSTRACT

**Aim and objective:** To assess the oral health status of special health care needs children, adequacy of awareness on oral hygiene among their parents, and recognition of the critical role of teachers as oral health moderators.

**Materials and methods:** This study included 78, 4–15 years aged children of Government Special Schools, Sangareddy. Both parents and teachers took part in the study. A self-administered questionnaire was given to their parents, OHI-S score and DMFT/deft score of the children were noted followed by a dental health awareness program through customized charts and models.

**Results:** Out of 78 children, 89% of their parents showed a lack of awareness in providing dental care for their children. Only 6% visited a dental surgeon previously. 69% had treatment needs.

**Conclusion:** Communication plays an important role in bringing a change in the knowledge and rendering dental care for specially-abled children and actively promoting oral health care in the school curriculum.

**Keywords:** Attitudes, Children with disabilities, Cross-sectional study, Oral health education, Oral hygiene status, Treatment needs.

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## INTRODUCTION

As per the updated census (2016), 2.21% of 121 crore population in India are disabled. Lack of coordination in muscular movements, understanding skills, and following given commands are the few reasons for children with disabilities to maintain proper oral health.<sup>1</sup> Oral health awareness of both parents and teachers is important for ensuring appropriate and regular supervision of oral hygiene status of the differently abled children when the child is unable to do so. As most of these special children attend their schools, it would be more accessible to create oral health awareness in a coordinated way through school dental health education programs to both teachers and parents by formulating efficient programs for oral health care in various groups. This study was conducted to analyze the oral health status of differently abled children and using communication as a key for imparting oral health knowledge through teachers in schools in Sangareddy district.

## MATERIALS AND METHODS

A study was conducted in Government Special Schools in Sangareddy. Institutional ethical clearance was taken along with prior permission from the respective school principals to conduct this study. Informed consent was taken priorly from the parents before the examination of the child. The age-group of the sample was 4–15 years. The sample consisted of physically challenged children with hearing, visual and speech impairments, mentally challenged children, cerebral palsy children, epilepsy, down syndrome children, Autism children,

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dyslexia, attention deficit hyperactivity disorder. A total of 78 differently abled children including their parents and teachers took part in the study.

Dental caries was assessed by DMFT/deft indices and oral hygiene status was evaluated by OHI-S index.<sup>1</sup>

A self-administered questionnaire (Table 1) consisting of ten questions was given to parents to assess their awareness and attitude toward oral health care followed by a session of oral health education, through customized charts and models with maximum

**Table 1:** Questionnaire for parents

S. No.	Questions
1	Group which child belongs to? a) Physically challenged b) Mentally challenged c) Genetically challenged d) Learning disabilities
2	Are parents practicing periodic dental check-ups for oral health maintenance? a) Yes b) No
3	If yes, whom are they consulting: a) General dentist b) Pedodontist c) Any other
4	How often: a) Once in 3 months b) 6 months c) 1 year d) When needed
5	Any treatment underwent? a) Oral prophylaxis b) Restorations c) Extractions d) Pulp therapies e) RCT
6	Various obstacles faced by the parents in providing dental care for the children: a) Transportation b) Lack of awareness c) Financial problem d) Inability of child to express e) Debilitating illness
7	Any history of chronic usage of pediatric liquid medicament? Yes/ no
8	Did they come across any information regarding powered toothbrushes or customized toothbrushes for improved dexterity of oral hygiene maintenance?
9	Would you be interested to attend a program conducted by a pediatric dentist regarding improved oral health strategy?
10	Do you think parents & teachers should be guiding the children on daily basis regarding oral hygiene?

**Table 2:** Age distribution

Age groups (years)	Frequency	Percent
4-6	10	13
7-9	19	24
10-12	22	28
13-15	27	35
Total	78	100

pictorial depiction for better understanding in local language as in group and individually.

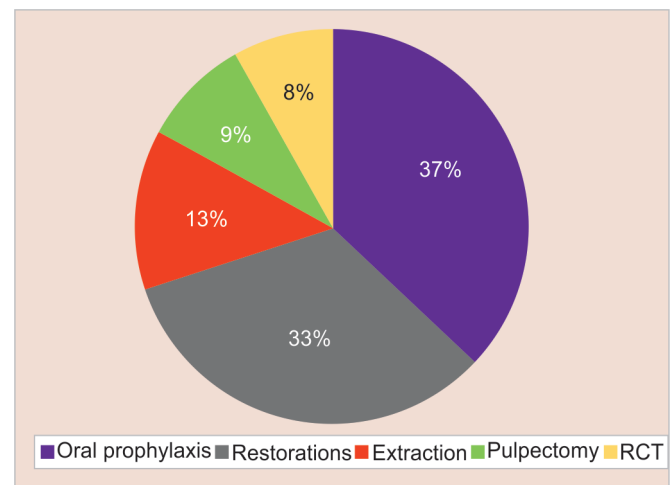
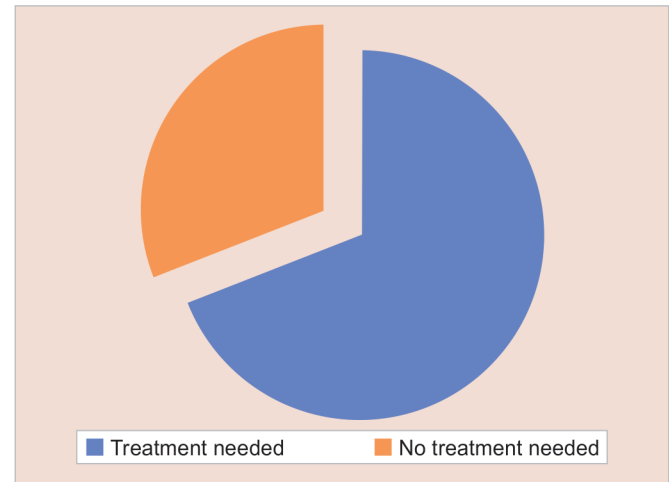
The collected data were entered into Microsoft Excel sheets and statistically analyzed using SPSS 22 version (corporation (IBM), Washington DC, United States). The data were expressed as percentages.

**Table 3:** Prevalence of dental caries and oral hygiene among children

Dental caries	Frequency	Percent
Present	34	44
Absent	44	56
Total	78	100

Oral hygiene	Frequency	Percent
Good	41	53
Fair	26	33
Poor	11	14
Total	78	100



**Figs 1A and B:** Treatment requirements

**RESULTS**

Table 2 shows maximum children(35%), were of 13-15 years of age.

In Table 3, out of 78, 34(44%) children had caries on clinical examination. 53% of the children had good oral hygiene. Figure 1 explains the treatments needed (69%) in which a maximum (37%) required oral prophylaxis followed by restorations (33%).

Figure 2 shows the barriers faced by parents in providing oral health care for their kids in which they considered lack of awareness (89%) as the major obstacle. Only 6% of the children had previous

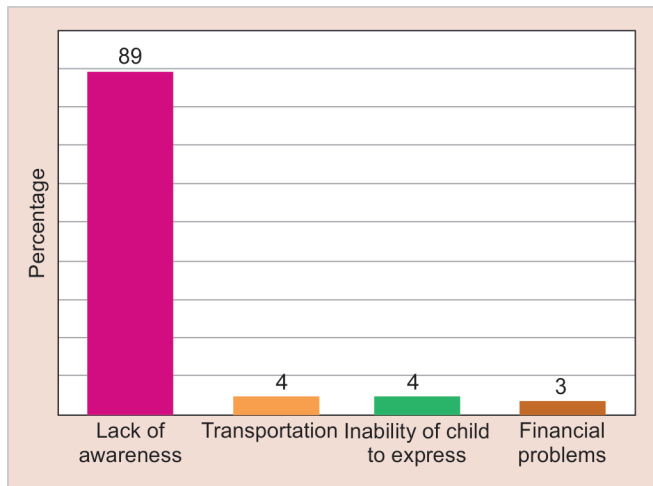


Fig. 2: Barriers faced by parents in rendering dental care

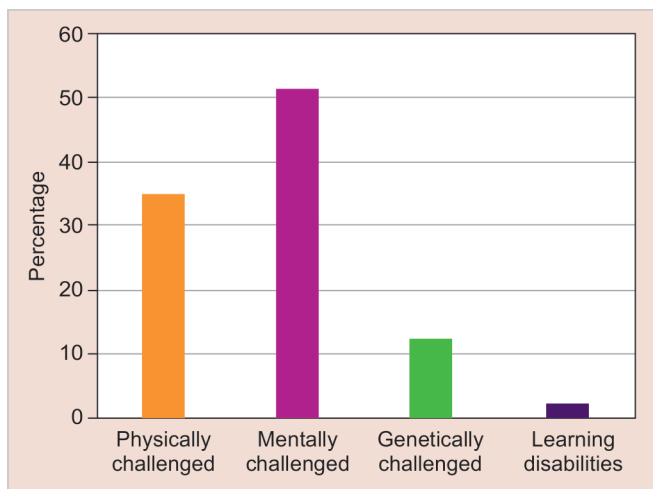


Fig. 3: Challenge wise distribution

dental visits which indicate a delayed dental care approach by the parents. Figure 3 shows the challenge-wise distribution of children in which mentally challenged were higher percentage (51%).

## DISCUSSION

Counseling of people involved in the care of differently abled children is important especially about oral health.<sup>2</sup> Parents and special school teachers have pivotal roles to play. But unfortunately, they fail to recognize the importance of proper oral health care.<sup>3</sup> This attitude can be intervened by conducting regular dental education programs, utilizing schools as an essential platform in promoting oral health as they reach many children worldwide.<sup>4</sup> According to the study conducted by Shenoy and Sequeira,<sup>5</sup> there was an improvement in the awareness of oral health through repeated counseling about oral health education programs in schools.

This comprehensive school-based initiative can help children in improving their oral hygiene through preventive methodologies such as fluoride supplements, sealants along with dietary counseling, and proper brushing techniques.<sup>6</sup>

In the present study, children without dental caries were found to be 56% whereas Areias et al.<sup>7</sup> found a higher prevalence (78%) of children which is similar to a study by Al Habashneh et al.<sup>8</sup>

According to Al Habashneh et al.<sup>8</sup> 40% of children had poor oral hygiene which was in contrast with the study in which only 14% of the children had poor oral hygiene.

In the present study, 69% required treatments in which 37% required oral prophylaxis and 33% required restorations followed by extractions (13%), pulpectomies (9%), and root canal treatment (8%). Similar results were found in the study conducted by Arihant Jain et al. in which 53.7% required oral prophylaxis and 33% required restorations.<sup>9</sup>

As per the study conducted by Shah et al.<sup>2</sup> 91.7% of caregivers did not have knowledge regarding powered toothbrush which was relatively similar to the finding in the present study where 100% of the caregivers did not have. Only 6% of children visited the dentist previously which shows a lack of awareness of the caregivers, this is in contrary to the study conducted by Maganur et al.<sup>4</sup> in which almost 91.3% of teachers were aware that a periodic dental visit is necessary for maintaining good oral health.

## CONCLUSION

Efforts should be made to effectively utilize both teachers and parents to educate the child regarding oral health with specially designed models to motivate them to carry out effectual oral hygiene routine daily with well-planned dental check-ups. This implementation results in providing improved oral care to the differently abled children.

## REFERENCES

1. Makkar A, Indushekar KR, Saraf BG, et al. A cross sectional study to evaluate the oral health status of children with intellectual disabilities in the National Capital Region of India (Delhi-NCR). *JDR* 2019;63(1):31–39. DOI: 10.1111/jir.12553
2. Shah AH, Mustafa N, Khan MS, et al. Oral health knowledge and attitude among caregivers of special needs patients at a comprehensive rehabilitation centre: an analytical study. *Ann Stomatol (Roma)* 2017;8(3):110–116. DOI: 10.11138/ads/2017.8.3.110
3. Dinesh R, Hegde A, Munshi AK. Oral hygiene status of disabled children and adolescents attending special schools of South Canara India. *Hong Kong Dental J* 2005;(2):107–113. Available at: [https://www.researchgate.net/publication/215563194\\_Oral\\_hygiene\\_status\\_of\\_disabled\\_children\\_attending\\_special\\_schools\\_of\\_South\\_Canara\\_India](https://www.researchgate.net/publication/215563194_Oral_hygiene_status_of_disabled_children_attending_special_schools_of_South_Canara_India)
4. Maganur PC, Satish V, Marwah N, et al. Knowledge, attitudes, and practices of school teachers toward oral health in Davangere, India. *Int J Clin Pediatr Dent* 2017;10(1):89–95. DOI: 10.5005/jp-journals-10005-1413
5. Shenoy RP, Sequeira PS. Effectiveness of a school dental education program in improving oral health knowledge and oral hygiene practices and status of 12 to 13 year old students. *Indian J Dent Res* 2010;21(2):253–259. DOI: 10.4103/0970-9290.66652
6. Lamba R, Rajvanshi H, Sheikh Z, et al. Oral hygiene needs of special children and the effects of supervised tooth brushing. *Int J Sci Stud* 2015;3(5):30–35. DOI: 10.17354/ijss/2015/342
7. Areias CM, Sampaio-Maia B, Guimaraes H, et al. Caries in Portuguese children with down syndrome. *Clinics (Sao Paulo)* 2011;66:1183–1186. DOI: 10.1590/S1807-59322011000700010
8. Al Habashneh R, Al Jundi S, Khader Y, et al. Oral health status and reasons for not attending dental care among 12- to 16-year-old children with down syndrome in special needs centres in Jordan. *Int J Dent Hygiene* 2012;10:259–264. DOI: 10.1111/j.1601-5037.2012.00545.x
9. Jain A, Thakur S, Singhal P, et al. Oral health status and treatment needs of children and young adults attending a day centre for Individuals with special health care needs in shimla. *Int J Dent Med Res* 2015;1(6):32–36. DOI: 10.1186/1472-6831-8-30