

Awareness of oral health among caretaker of children with special healthcare needs – A cross sectional study¹Dr. Harish Chaitram Jadhav, Reader, Dept of Public Health Dentistry, ACPM Dental College, Dhule²Dr. Prashanth V K, Professor, Dept of Public Health Dentistry, ACPM Dental College, Dhule³Dr. Snehal Sakham Patil, PG Student, Dept of Public Health Dentistry, ACPM Dental College, Dhule⁴Dr. Shruti Pundkar, Sr. Lecturer VYWS Dental College and Hospital Amravati, Maharashtra⁵Vijay Garje, Student, ACPM Dental College, Dhule⁶Vaishnavi Dhomse, Student, ACPM Dental College, Dhule**Corresponding Author:** Dr. Harish Chaitram Jadhav, Reader, Dept of Public Health Dentistry, ACPM Dental College , Dhule.**Citation of this Article:** Dr. Harish Chaitram Jadhav, Dr. Prashanth V K, Dr. Snehal Sakham Patil, Dr. Shruti Pundkar, Vijay Garje, Vaishnavi Dhomse, “Awareness of oral health among caretaker of children with special healthcare needs – A cross sectional study”, IJDSIR- March – 2024, Volume –7, Issue - 2, P. No. 112 – 118.**Copyright:** © 2024, Dr. Harish Chaitram Jadhav, et al. This is an open access journal and article distributed under the terms of the creative common’s attribution non-commercial License. Which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given, and the new creations are licensed under the identical terms.**Type of Publication:** Original Research Article**Conflicts of Interest:** Nil**Abstract****Introduction:** Oral health is a very important aspect of general health, especially for vulnerable groups such as special children. Children with disabilities may have cognitive impairments and oral health related quality of life is generally hampered as oral health of children and usually deteriorates faster than that of the general population as they grow older.**Methodology:** Observational study was conducted on caretakers for special child of residential school in North Maharashtra region. A structured questionnaire consisting of eighteen questions were given to caretakers. Questions were regarding oral health knowledge and special health care needs of disabled children.**Results:** Though 56.4% caretakers find oral health care for special children challenging, they believed that oral health training could be useful for them to deliver oral care to special children**Conclusion:** It can be concluded that caretakers know the importance of oral health but they are not aware regarding the scientific knowledge**Keywords:** Oral Health, Caregivers, Oral Hygiene, Knowledge**Introduction**

Oral health is a very important aspect of general health, especially for vulnerable groups such as special children. Children with chronic physical, cognitive, communication, and behavioural challenges make up the large group of people known as children with special

healthcare needs (SHCNs)^[1]. Children with disabilities may have cognitive impairments, behavioural issues, mobility issues, neuromuscular issues (such as difficulty eating, drooling, and gagging), uncontrollable body motions, gastric reflux, or seizures. Those children may also have oral habits such as lip biting, tongue thrusting, and mouth breathing; and also some self injurious habits such as stripping of gingiva, and frenal thrusting; all of these factors add up for severe oral health issues^[2]Children with SHCN in India showed a high prevalence of dental caries, gingivitis and dental trauma^[3]. Oral health related quality of life is generally hampered as oral health of children with SHCNs usually deteriorates faster than that of the general population as they grow older. Additionally, it has an impact on family members' everyday activities, relationships within the family their mental and physical health and also increasing the care burden^[4]. Maintaining overall health and taking care of daily activities in these physically handicapped and intellectually disabled individuals is very challenging^[5]. Hence, children with disabilities and special needs are at greater risk of health problems and require extra help and rely on others to achieve and maintain good health. Parents, siblings, or caretakers often render this care as caretakers are involved in children's daily diet, general hygiene, and maintenance of their oral health. If dental care is delayed, oral health problems tend to become worse over time. Due to the financial barriers and priorities of other responsibilities they are providing less priority for oral health care which contributes to poor oral health among disabled children. Evidence of global literature indicates that good oral health awareness and positive attitudes of parents/caretakers toward it play an important role in maintaining optimal oral health in such children or dependents^[6]. The caregiver level of education is a key

factor influencing oral health awareness; ultimately, practice and proper education can make a difference in SHCN children oral health and improve their dental health outcomes^[7]. Role of caretakers and parents in maintaining oral health of the special child is important so as to prevent deleterious habits and extensive oral health problems. The study aims to assess the caretakers knowledge, attitude, and practice of oral health-promoting factors among caretakers of children with SHCN.

Methodology

Study Design: The Present study was observational study conducted on caretakers for special children of residential school in North Maharashtra region.

Study Setting: The study was conducted on caretakers of 4 residential schools for special children in North Maharashtra region.

Study Population: Caretakers of special health care needs children of age group 5-14 years.

Ethical considerations: Prior to beginning the study, the institutional ethical committee granted its approval (EC/NEW/INST/2022/2959/2022/027). Before getting their consent, parents were informed regarding goal of the study.

Questionnaire: A structured questionnaire consisting of eighteen questions were given to caretakers. Name, age, sex etc were among the demographic information requested in the first section of the questionnaire. The second section had eighteen multiple-choice, closed-ended questions. Questions about oral hygiene habits, dental awareness, and oral health knowledge were posed to the caretakers. Additionally, questions related to dental hygiene were included. Out of this 5 questions were regarding oral health knowledge and 13 were regarding special health care needs of disabled children.

Sample Size: 4 residential schools for special children were selected which 95 caretakers out of which 82 had showed their willingness to participate in the study. Convenience sampling was done.

Validity of questionnaire: The validity of questionnaire I-CVI, S-CVI and UA in English was 0.96, 0.95 and 0.94^[7]

Collection of data: Data was collected from the questionnaire and it was transferred to excel sheet. Statistical analysis was done with SPSS software version 22.

Results

Eighty two caretakers of children with exceptional health care requirements participated in the current study. Table 1 shows designation of participants, where 32.1% were teachers, 46.2% were caretakers, 19.2% were assistants, and 2.6% were nurses. When questioned about the relationship between dental health and overall health, 96.2% participants thought that oral health is related to general health. Where as 98.7% participants thought that disabled people are more prone to oral health problem. Majority of participants (89.7%) believed that daily care of the teeth can prevent the oral diseases where 44.9% believed that fluoridated toothpaste prevent the dental decay. Regarding brushing times as shown in fig 1, 16.7% participants believed that it is not necessary, 21.8% participants believed that it should be done whenever possible, 9% participants believed that once daily brushing is ideal, 52.6% participants believed that brushing twice daily is ideal. 80.8% participants advised children to brush their teeth twice daily. 60.3% participants made sure that the child gargles his/ her mouth with water after meals/snacks. 98.7% believed that chocolate and Beverages cause more decayed teeth. Regarding rating of oral health care for the disabled, out of which 7.7% people answered it as Easy, 9.0% said it

difficult, 24.4% people said very difficult, 56.4% people said Challenging and 2.6% said don't know. 35.9% visited dentist when they have a problem, 5.1% visited frequently, 12.8% people visited once every year, 12.8% people visited twice every year. 75.6% participants agreed that oral health training can be helpful for them to deliver better oral care to the inhabitants whereas only 21.8% participants thought it not to be useful. And when asked regarding the source of information for those who had knowledge of dental care, 59.0% participants said Doctors/dentists, 6.4% said Internet, 12.8% said TV and media, 3.8% said Books and printed media, 17.9% said other people. 56.4% participants believed that as permanent teeth erupt subsequently, milk teeth are not important as shown in fig.2

96% participants agreed that oral health is related to general health and also accepted that special children are more prone of developing oral diseases. Participants showed good knowledge regarding brushing frequency and sugary substances causing dental caries. Though 56.4% caretakers find oral health care for special children challenging, they believed that oral health training could be useful for them to deliver oral care to special children showing positive attitude of caretakers

Discussion

According to 98.7% of participants, persons with disabilities are more likely to experience oral health issues. This finding is consistent with a study conducted by Jae-Young Lee, Lim KC, Kim SY et al. that indicated that individuals with disabilities had lower tooth count, higher DMFT, and DT than people without disabilities^[8]. 89.7% participants thought that daily care of teeth can prevent oral disease which was similar to a study conducted by Thomas S, Dagli R et al where majority of the caretakers believed that it is important to clean teeth and that regular oral care can prevent oral

diseases^[5], it illustrates how optimistic caretakers are about maintaining proper oral hygiene. 44.1% of people believed that fluoridated toothpastes may prevent dental decay. This suggests that caretakers are well known to the fact that fluorides help in preventing dental decay. In response to a question on how often children should brush their teeth, 52.6% of caretakers said they do so twice a day. Majority of caretakers had a good knowledge regarding how many times brushing must be done as WHO emphasize also on brushing twice^[9] as it is the basic and effective method to prevent oral diseases. 82.1% caretakers preferred manual toothbrush to special children this could be because only 64.1% caretakers were aware about the powered toothbrushes. It is known that effective tooth brushing is dependent on the toothbrush, brushing time, manual dexterity, motivation, and ability to follow instructions. Poor development of manual dexterity and motor functions in these children results in ineffective use of the toothbrush^[10]. The awareness level of care providers on diet and caries was agreeable where 98.7% caretakers believed in Chocolate and Beverages causing dental caries as Sucrose has long been regarded as the most cariogenic carbohydrate^[11]. The caretakers accepted that oral health care for the people with disabilities is difficult and challenging (Fig3) which was similar to a study conducted by Thomas S, Dagli Ret al^[5].

55.1% caretakers changed the toothbrush after every three months. 75.6% of caretakers felt that receiving oral health training can help them provide better oral care because 50% of caretakers learned how to take care of the special children's oral health on their own. This shows the need for training programs for caretakers to effectively manage the oral health of special children who are more susceptible to oral diseases and 66.7% believed that Audio video training procedure will be

more helpful which was similar to a study conducted by, Rasul S, Bukhsh Q, Batool S where the respondents viewed that A.V aids provide knowledge in depth and detail^[12]. As by audio visual training it will be helping them to demonstrate different brushing techniques, regarding oral hygiene habits which will facilitate the easy learning. 56.4% participants believed that milk teeth are not important as permanent teeth erupt which was contrast in a study conducted by Suchitra Nelson, Slusar MB, Albert JM^[13] et al where caretakers believed that baby teeth do matter.

Conclusion

It can be concluded that caretakers know the importance of oral health but they are not aware regarding the scientific knowledge such as use of fluoridated toothpaste, regarding dental visits and importance of milk teeth. To improve oral health attitude of caretakers, dental education and training program should be given priorities so that the oral health of special children can be improved leading to increase in their oral health quality of life.

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Legend Tables and Figures

Table 1: Designation

Designation	Percent
Teacher	32.1
Caretaker	46.2
Helper	19.2
Nurse	2.6
Total	100.0

Table 2: Questions

Sn.	Questions	Options	Percentage
1	Is oral health related to general health?	Yes	96.2
		No	3.8
2	Do you think disabled people are more prone to Oral health problems?	Yes	98.7
		No	1.3
3	Do you think daily care of teeth can prevent Oral Disease?	Yes	89.7
		No	10.3
4	Do you think fluoridated toothpastes prevent dental decay?	Yes	44.9
		No	55.1
5	How many times it is ideal to brush the teeth?	Not necessary	16.7
		Whenever possible	21.8
		Once daily	9.0
		Twice daily	52.6
6	Do you advise the children to brush their	Yes	80.8

	teeth twice daily?	No	19.2
7	Which toothbrush preferred to special children ?	Normal toothbrush	82.1
		Powered toothbrush	14.1
		Other	3.8
8	Do you check whether the child gargles his/her mouth with water after meals/snacks?	Yes	60.3
		No	39.7
9	Which things can cause more decayed teeth?	Chocolate and Beverages	98.7
		Sabji roti	00
		Rice	1.3
10	Have you seen or heard about powered tooth brush	Never	64.1
		Only heard about it	9.0
		Have seen it but not used	20.5
		Used it	6.4
11	How would you rate the oral health care for the disabled?	Easy	7.7
		Difficult	9.0
		Very difficult	24.4
		Challenging	56.4
		Don't know	2.6
12	How many times should we visit a dentist in a year?	When you have a problem	35.9
		Frequently	5.1
		Once every year	12.8
		Twice every year	12.8
		Don't know	33.3
13	When you should change your tooth brush	Whenever you like	7.7
		When bristles	25.6

		are out of shape	
		Every three months	55.1
		Every six months	1.3
		Don't know	10.3
14	How did you learn to take care of oral health of the inhabitants?	Previous training programs	21.8
		By myself	50.0
		From other co-workers	28.2
15	Do you think oral health training can be helpful for you to deliver better oral care to the inhabitants?	Yes	75.6
		No	21.8
		Don't Know	2.6
16	Which of the following training procedure do you think you need to be given for better oral health care to the present group?	Audio video training	66.7
		Hands on training	32
		No training required	1.3
17	Sources of information for those who had knowledge of dental care –	Doctors/dentists	59.0
		Internet	6.4
		TV and media	12.8
		Books and printed media	3.8
		Other people	17.9

Figure 1

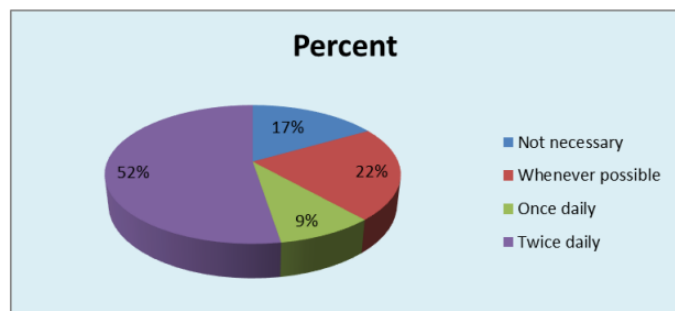


Figure 2

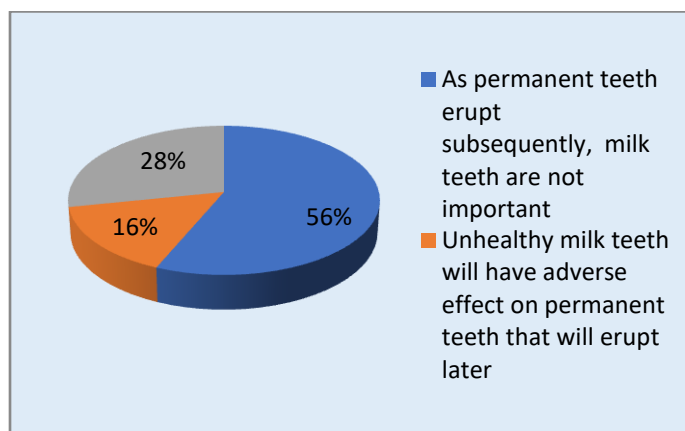


Figure 3

