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KNOWLEDGE, ATTITUDE AND PRACTICES OF ORAL HEALTH CARE OF CHILDREN RESIDING IN ORPHANAGES OF UDAIPUR CITY

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ABSTRACT

Oral health is an integral component of general health which has great impact on quality of life. Groups of people such as disadvantaged children are often denied access to health information and knowledge due to a number of reasons for example inaccessibility, nature of the disadvantage that may necessitate participation of specialized professionals. The sudy was undertaken to assess the knowledge attitude and practices of orphan children. A cross-sectional survey was conducted among 600 children aged 5, 12 and 15 years living in different orphanage houses of Udaipur city. The WHO self assessment questionnaire including 14 items with closed-ended questions was distributed.[7] The questionnaire was meant to assess the sources of information on oral health knowledge, attitude, and practice of children living in the orphanages. The data obtained was statistically analysed and the result showed that oral health knowledge and practices were not satisfactory. The self perception of the study sample did not match with the knowledge, attitude and practices of the same. The absence of parents or caregivers does have a considerable effect on the oral health attitude of the child.

KEYWORDS: Oral Health, Knowledge, Attitude, Orphanages, Dental Caries.

INTRODUCTION

Oral health is an integral component of general health which has great impact on quality of life. Despite major improvements in oral health care in recent decades, many children in developing countries are still affected by common oral diseases like dental caries.[1] Dental caries is a microbial disease in which teeth mineralization and integrity are compromised.

Oral health practices like tooth brushing, use of fluoridated toothpaste, and minimal consumption of sugary foods can play a major role in prevention of oral diseases. However this in only possible when a person understands the value of dental/oral health.[2] Groups of people such as disadvantaged children are often denied access to health information and knowledge due to a number of reasons for example inaccessibility, nature of the disadvantage that may necessitate participation of specialized professionals.[3] An orphan is defined as a child under 18 years who has lost his father, mother or both parents. Orphans, therefore, are considered disadvantaged and socially marginalized population on whom the diseases burden is high.[1] Children from orphanages have shown a high prevalence of dental caries,[4] gingivitis, and dental trauma.[5] This has been attributed to overcrowding, lack of adequate staff, poor oral hygiene and improper dietry habits. Numerous studies have shown a high prevalence of dental problems among underserved population than that of general populations.[6]

One of the most important aspects for developing community-based oral health education and promotion programs is generating data and determining existing knowledge, behaviors, attitudes and factors for seeking professional dental care.[7] Within the framework for the WHO STEP wise approach (i.e., where acquisition of data begins with self-reported information followed by clinical data and biochemical analysis), the risk-factor approach model guides data collection on socio-environmental determinants, modifiable risk factors, hygiene habits and use of oral health services affecting oral health.[8]

There are several studies on oral health status of orphans, however studies on oral health knowledge, practices and

preventive measures are scarce. [9] The current study was undertaken to fill this gap and determine the present status of knowledge and urgency of intervention amongst orphans aged 5, 12 and 15 years in Udaipur city.

OBJECTIVES

The objectives of the study were as following.

1) To determine the level of knowledge, attitude, and oral health care practices of orphan children in Udaipur city.

2) To determine the association of knowledge with attitude, oral health care practices, and prevalence of dental caries within the study sample.

Study population and methodology

Study population: A cross-sectional survey was conducted among 639 children aged 5, 12 and 15 years living in different orphanage houses of Udaipur city out of which 600 were selected for the study. Participants were randomly selected from different orphanage houses, which were run by government and private authorities. Ethical approval for the study was obtained from the Ethical Committee. A letter was sent to the orphanages as well as the Govt schools which the children attended, explaining the aims of the study and asking them for their consent for concerned children to participate in the study. Also, children who participated in the study were informed regarding the aim of the study and their consent was obtained.

Methodology: The WHO self assessment questionnaire including 14 items with closed-ended questions was distributed.[7] The questionnaire was meant to assess the sources of information on oral health knowledge, attitude, and practice of children living in the orphanages. Keeping the study group in mind, questions were translated into Hindi, the regional language, and the questionnaire was pretested to obtain better understanding and response from the children. The children received a full explanation of how to fill in the questionnaire. Children themselves recorded questionnaire provided to them. Furthermore, the investigator was always available during the completion of the questionnaire and the participants were encouraged to approach the investigator whenever they needed to clarify at any point.

RESULTS

Table 1 shows the age and gender profile of the study population. There were significantly more number of subjects (390) among 12 year age group than 5 and 15 year old age group. study sample was comprised of less number of female subjects (105) then male subjects (495).

Table. 1. Age and Gender profile of the study population.

			Gender		Total
			Males	Females	
AGE	5 years	N	87	33	120
		%	72.5%	27.5%	100.0%
	12 years	N	324	66	390
		%	83.1%	16.9%	100.0%
	15 years	N	84	6	90
		%	93.3%	6.7%	100.0%
Total		N	495	105	600
		%	82.5%	17.5%	100.0%
P[a] value			<0.0001*		

* significant

P[a] Chi-square test

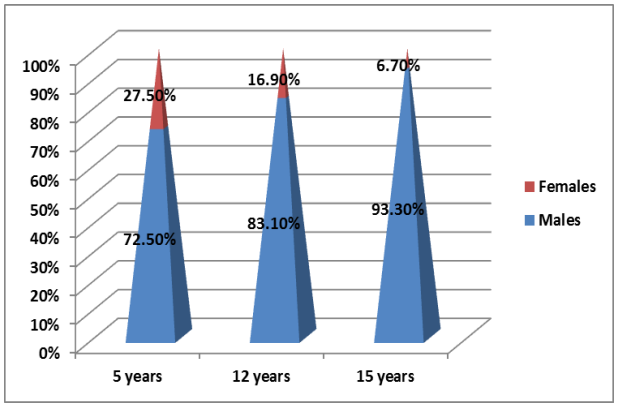

Figure. 1. Age and Gender profile of the study population.

Table 2 shows background variables and knowledge regarding oral health of orphanage children. Out of the children who responded to this question in the questionnaire given to them, majority of the orphanage children's were living in Peri-urban areas. Comparatively more number of subjects (29.2%) reported the health of teeth as excellent, and health of gums as good. Majorly children from these age groups experienced tooth ache occasionally or rarely ever and around 52.8% of the children had visited dentist only once in last 12 months with main concern of pain in tooth/gum or mouth.

Table. 2: Background variables and knowledge regarding oral health of study subjects.

Location		
Peri urban	457	76.2%
Rural	143	23.8
Health of teeth		
Excellent	175	29.2%
Very good	98	16.3%
Good	170	28.3%
Average	74	12.3%
Poor	29	4.8%
Very poor	10	1.7%
Don't know	44	7.3%
Health of Gums		
Excellent	101	17.4%
Very good	127	21.8%
Good	207	35.6%
Average	87	14.9%
Poor	21	3.6%
Very poor	5	0.9%
Don't know	34	5.8%
Frequency of tooth ache		
Often	101	16.8%
Occasionally	192	32.0%
Rarely	159	26.5%
Never	81	13.5%
Don't know	67	11.2%
Dental visit in last 12 months		
Once	317	52.8%
Twice	247	41.2%
Three times	36	6.0%
Reason of dental visit		
Pain /trouble with gums or mouth	209	34.8%
Treatment/ follow up	197	32.8%
Routine check up	126	21.0%
Don't know/remember	68	11.3%

Table 3 shows Oral hygiene practices and perception of study population. A large proportion of subjects (46.2%) reported frequency of cleaning teeth to be 46.2% followed by brushing twice or more times a day. All the study participants were using toothbrush for cleaning teeth but only 85.2% reported the use of toothpaste. When children were asked to fill the questions regarding their oral health perception, very less proportion of children had the feeling to avoid smiling and laughing because of teeth and had missed school because because of teeth problems where as comparatively more number of subjects had difficulty in biting food because of teeth problems.

Table. 3: Oral hygiene practices and perception of study population.

Frequency of cleaning		
	N	**%**
Never	9	1.5%
Several times a month	10	1.7%
Once a week	36	6.0%
Several times a week	52	8.7%
Once a day	277	46.2%
2 or more times a day	216	36.0%
Cleaning aid used		
Toothbrush use	600	100%
Wooden toothpick use	176	29.3%
Use of tooth paste	511	85.2%
Use of toothpaste containing fluoride	123	20.5%
Oral health perception		
Feeling to avoid smiling and laughing	118	20.6%
Other Children making fun of teeth	167	29.3%
School miss because of tooth ache	65	11.5%
Difficulty in biting food	216	37.7%

DISCUSSION

Socially handicapped children are those who lack parental care and support. They lack basic information, motivation, and supervision provided by parents, especially in the initial days of their childhood. Once these children are recognized and institutionalized, primary care taker and teacher's of the orphanages become their responsible guardians. Therefore, the knowledge and information regarding general or oral healthcare maintenance as well as visit to dentists for these children should be provided by these authorities.[3] The main purpose of this study was to assess oral health knowledge and practices of children living in the orphanages of Udaipur city. It is said that children with inadequate oral health knowledge are twice more likely to have caries.[10]

Respondants of this study were made up of 82.5% males and 17.5% females. This is a clear indication that there are more orphan boys than girls. This can be attributed to the fact that given the hardships of living alone, girls prefer to live with relatives or work as house helpers for safety and security.[9] A study done by FK kahabuka and HS Mbawalla on institutionalized former street children also showed a significantly higher number of males than females residing in the institutions.[9] In contrast Mohit Bansal et al[11] and Mazhari F et al[12] who reported high female to male ratio in their study.

The children included in the study group were mainly residing in peri-urban areas (76.2%). A study done by Zhu Ling et al[13] showed that children and adolescents living in urban areas had regular oral hygiene habits more often than those in rural areas. This maybe due to

adoption of modern lifestyle and use of standard tootht brush which was significantly less in rural areas. The present study showed toothbrush(100%) as the most common cleaning aid used amongst children accompanied by tooth paste (85.2%).

The self assessment parameters showed that the frequency of tooth ache was reported as 32.0% occasionally. The main cause for visit to dentist was pain(34.8%) which could be due to the symptom oriented nature of the children. Also 37.7% children reported difficulty in biting or chewing food. 52.8% children had atleast visited the dentist at least once in last 12 months. In a study done by Maryam Rad et al[14] reported only 35.3% students had visited any dentist in past 6 or 12 months and 53.7% had visited a dentist if they had a pain or a problem in their tooth or gums. Also in a study done by Harikiran AG[15] 35.1% had visited a dentist during the last 12 months.

The knowledge of toothpaste containing fluoride was found to be 20.5% in the present study.

A study done by Sharda AJ et al[16] lesser reported knowledge regarding the same compared to our study (12.6%). However, a study done in China reported 37%[17], Iran reported 62.8%[14] and Jordan 77%[18] knowledge of students about the effect of fluoride on teeth.

The information on oral health knowledge, attitudes, and behaviour was collected by means of questionnaire, but this data collection method had its limitations. This method assumes that knowledge and behaviours are absolute, but under condition of uncertainity, the individual may be biased, leading to inflated positive responses. Further more a research should also aim at finding an effective model of oral health education which changes behaviour and sustains it for a longer period.

CONCLUSION

The result of this study showed that oral health knowledge and practices were not satisfactory. The self perception of the study sample did not match with the knowledge, attitude and practices of the same. The absence of parents or caregivers does have a considerable effect on the oral health attitude of the child. We recommend that evidence based dental awareness programs are needed in order to improve dental related knowledge, attitude and practices among different age groups.

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