

Oral Health Status of Orphanage Children, Tumkur: A Survey Report

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Abstract

Background and Aim: It has been well documented that the absence of family support influences the general and oral health of the children. Oral health symbolizes the general health and quality of life of an individual. The socioeconomic status and emotional factor show a direct impact on oral health status of children. Hence, survey was done with an objective to assess the baseline data regarding oral health problems among orphan children of Tumkur, Karnataka. **Methods:** A cross-sectional survey was conducted among 2- to 15-year-old children residing in five orphanages of Tumkur. Prior permission and consent were obtained from respective authorities, institution, and children. Self-administered questionnaire included demographic details, oral hygiene practice, duration of stay, decayed, missing, filled tooth (DMFT) and tooth fracture status, and gingival status. Collected data were analyzed using descriptive statistics. **Results:** A total of 110 children in the age group of 2–15 years were examined. The findings of the examination highlighted untreated caries and no filled component which may be attributed to poverty, illiteracy, poor awareness, and lack of oral health services. **Conclusion:** Survey showed the need for oral health care services at orphanages of Tumkur. Spare time to serve our social responsibility (in the form of health services and psychological comfort) toward society either individually or along with institutions, nongovernmental organization, and public–private partnerships.

Keywords: Children, dental caries, orphanage

INTRODUCTION

Orphan is defined as a child under 18 years, who has lost his father, mother, or both. The pattern of orphanage living is different from family living as it provides physical security, food, and shelter but is devoid of psychological security. Family and parents nurture children to develop confidence and psychological comfort.^[1] Often, these orphanage homes can only barely meet the needs of their inmates because of poor funding and the low caretaker to child ratio. These children form a population at risk with reference to abnormal psychosocial development due to lack of parental guidance, environmental deprivation, and emotional disturbances.^[2]

Despite great improvements in the health of populations in several countries, this global problem still persists. Oral health issues are more prevalent among deprived groups of developing and developed countries.^[3] Oral health is an integral component of good general health. Many children have inadequate oral and general health because of active and uncontrolled caries. Untreated oral diseases could lead to general health problems, pain, interference in eating, loss in

school time, and also social unacceptability.^[3,4] Recognition of these problems is essential to provide optimum oral health for these deprived children. If the oral health of children develops unfavorably, they should be considered a risk group demanding special attention for planning of Dental Health Program.^[5]

Hence, an attempt was made with an objective to assess the baseline data regarding oral health status among this population.

METHODS

A descriptive cross-sectional study was conducted to assess the dental caries status of institutionalized orphan children residing in orphanages of Tumkur city. A list of the orphanages in Tumkur was acquired from the Department of District Women

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and Children Welfare Office, Tumkur. A total of five orphanage children were included in the study who were registered with the Department of Social Welfare which gave the permission and consent to conduct study at their institutions. The study protocol was reviewed and approved by the research cell of dental college and hospital. The caretakers/wardens of orphanages offered written proxy consent for the children selected from orphanages. An intern was trained to assist the recording procedure. The survey was scheduled to spread over a period of 1 week in May 2017.

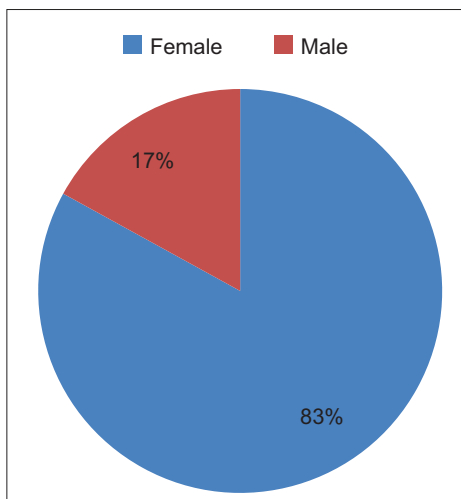
A total of 110 children aged between 2 and 15 years were included in the study. A specially designed questionnaire was answered by the orphans and their caretakers to assess their problems, duration of stay, existing oral hygiene practice, and attitude toward oral health. Intraoral examination was performed. Baseline data were collected on oral hygiene, fractured teeth, and presence or absence of gingivitis, status of decayed, missing and filled teeth among permanent (DMFT) and deciduous dentition (dmft).^[6] The collected data were subjected for analysis.

RESULTS

This descriptive cross-sectional survey included a total of 110 children in the age group of 2–15 years. Mean duration of stay in orphanage was 4 years. Graphs 1 and 2 show gender- and age-wise distribution of children.

The prevalence of dental caries among the study population was 88 ($n = 97$, 4%). Regarding permanent teeth, mean DMFT was 1.34 ± 1.42 where a decayed component of DMFT was common among 51 children. In deciduous dentition, the mean dmft was 2.03 ± 1.61 where 46 children were affected with dental caries. The findings of the examination highlighted untreated caries and no filled component which may be attributed to poverty, illiteracy, poor awareness, and lack of oral health services.

Fracture of anterior teeth was found among 22% ($n = 24$) and gingivitis among 57% ($n = 63$) of the study population.



Graph 1: Distribution of study population according to gender

The highest number of children, i.e., 96% ($n = 106$), reported using toothpaste and toothbrush and brushing once daily. Regarding the visit to a dentist, 93% of children had never visited a dentist. In the studied population, 65.2% ($n = 72$) reported taking sweets occasionally and 34.8% ($n = 38$) of children specified taking sweets about one to three times per day.

DISCUSSION

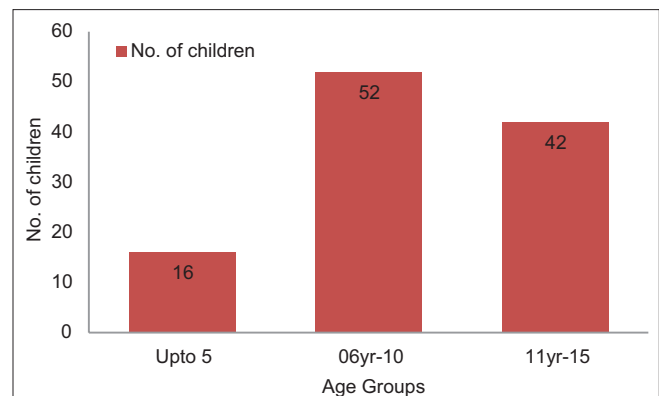
Oral diseases were found to be more common among disadvantaged population because of constraints such as dental workforce, financial, and availability of health-care facilities.

Dental caries was one of the most common dental diseases among these children; similar findings were seen at Jammu,^[1] Mysore,^[7] Vadodara city,^[8] Jaipur,^[9] Andhra Pradesh,^[10] Brazil,^[11] and Queensland^[12] orphanage children. This may be attributed to frequent in-between consumption of carbohydrate food products and lack of awareness toward oral hygiene practices.

Precise comparison cannot be justified due to their diverse culture, food pattern, geographic location, and other factors such as diet of children in orphanages in India which tends to be noncariogenic where the food provided covers the three basic meals in a day. The data on oral health behavior collected showed that most of the children were using toothbrush and toothpaste. Similar practices were seen in the previous studies^[13-17] conducted among children of orphanages, streets, and ashrams.

Regarding the visit to a dentist, 93% of children had never visited a dentist. These findings are similar to the findings of national data for the state.^[14] The reason can be limited resources as well as dental health personnel and the attitude of these children toward dental professionals. Furthermore, children might be satisfied with the status of their teeth and thus do not recognize the need for regular dental visits.^[17]

Children are particularly sympathetic. Hence, earlier the habits are established, more enduring the impact will be. Furthermore, messages can be reinforced repeated. Family support plays an important role which can provide psychological and social support.



Graph 2: Distribution of study population according to age groups

The data collected for habits and practices may have certain limitations. In addition, recall bias and social desirability bias could be considered with respect to the consumption of food items and frequency of toothbrush replacement. Our results cannot be generalized to the whole population of Indian children since the sample size is small.

The present descriptive survey showed the oral health status among orphanage children in Tumkur.

Recommendations

By following the status of oral health, we have to adopt prevention-oriented dental care by utilizing resources of the dental colleges, nongovernmental organization (NGO), and public-private partnership. We recommend implementing preventive and educational programs on oral health and sensitizing the children themselves with awareness toward oral hygiene. Caries prevention programs such as placing sealants and fluoride programs can be started.

Spare some time to serve our responsibility toward society either individually or along with institutions, NGO, and public-private partnership which are working to curb this problem through "From Hunger. to Harvest, From Abuse. to Allies and From Poverty. to Productivity."

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Conflicts of interest

There are no conflicts of interest.

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