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Oral Health Seeking Behaviour of Orphan Children in Dhaka City, Bangladesh

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Abstract

A cross-sectional study was conducted among 371 orphan children aged between 6 and 17 years of four different institutions in Dhaka city, Bangladesh, between January and December of 2023, to determine their oral health seeking behaviour. We selected participants through convenient sampling method. A structured, pre-tested questionnaire with checklist (Bangla version) was used to collect data. Data was collected by face-to-face interview of the participants. Apart from sociodemographic checklist, questions were asked relating to oral healthcare seeking behaviour in the last year. The mean age of the participants was 10.96±2.52 years. 87.33% were boys and 12.67% were girls; male-female ratio was 6.9:1. 96% of them were Muslims. 46.6% were from class-I to class-IV, while 41.5% were from class-V to class-VIII. 48% of them were from urban area, while 45% were from rural area; however, 7% did not know anything about their home district. 48.5% of the children's duration of stay in the orphanage was less than 2 years, while 35% of them were staying in the orphanage between 2 and 5 years. Among those children, 50.9% reported for seeking oral healthcare. 39.6% sought oral healthcare due to toothache and decay, while 5.9% respondents told about mobility of teeth. Most of them (42.6%) went to the local pharmacy, while 36.7% reported to the government facilities and 18.6% to private facilities. Only 0.8% reported to their own institutional physician for oral healthcare. 81.4% of the orphan children told that they had healthcare facilities within 1 kilometre, and for 12.9%, it was 2-3 kilometers away. For self-medication practices, 68.8% argued about easily available medications (including over-the-counter drugs), while 18.8% respondents indicted towards the cost of doctor visit. 62.5% had cure or improvement, while 2.7% could prevent further illness; however, 9.4% had no cure at all.

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Introduction

Being orphans and living away from parents' care can have a detrimental effect on the psychological, emotional, and cognitive behaviours (as researchers experienced among children living in orphanages). In addition, the lack of social and cultural identification that comes with growing up in a family places children in orphanages at a social disadvantage. Because of this, the children experience frequent episodes of diarrhoea, fever, cough, malnourishment, low immunity, mental health issues and poor oral health.[1] The most common chronic illness in children is dental caries, which has a particularly negative effect on kids' health. The inability to eat healthily is significantly hampered by decayed or sore teeth, which has a direct impact on nutrition and, eventually, systemic health. Due to their social isolation, children in orphanages have limited access to dental health care, information, and education. Furthermore, because orphanages are run on a limited budget, they can only offer the bare needs of clothing, food, and shelter. Therefore, children in orphanages may have additional risk factors for oral health in addition

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to the already established risk factors for oral disorders.[1-3] Like many other diseases, oral disease primarily affects the poor and socially marginalized population.[4,5] Children from disadvantaged backgrounds have little or no access to oral health information and services for several reasons, e.g., lack of information and accessibility or the nature of their disadvantage, which may require the involvement of reform in oral health policy of the country.[5,6] Orphanage resident children are considered as socially marginalized population in our South Asian region and known to have unmet oral health needs.[7,8]

In public health, any activity made by people who think they are sick or have a health issue is considered healthcare seeking behaviour. It includes actions taken to prevent illness, to keep one's health in good condition, and to deal with any deviation from one's ideal state of health. The demand for oral healthcare services appears to be closely correlated with the act of seeking oral healthcare. As a result, a person's decision regarding which service to use as well as when and where to get healthcare services is frequently linked to the demand for oral healthcare services.[9] Poorer oral health outcomes, increased mortality and morbidity, and worse oral health statistics have all been linked to inadequate health-seeking behaviour.[4,5,9] Hence, we proposed to research on orphanage resident children in our country based on our understanding about the importance of the social consequences of diseases and interventions that are intended to increase their access to healthcare and improve quality of life.

Methods

This cross-sectional study was conducted among 371 orphan children aged between 6 and 17 years of four different institutions in Dhaka city, Bangladesh, between January and December of 2023. The participants were selected by convenient sampling methods from SOS Children's Village Dhaka at Shamoli, Mirpur Road, Mohammadi Ashraful Madaris & Etimkhana at Mohammadpur, Jamia Islamia Baitul Aman and Etimkhana at Adabor, and Jamia Islamia Baitul Falah (Madrashah & Yatimkhana), Mohammadpur. A structured, pre-tested questionnaire and clinical examination checklist were used to collect data. Data was collected by face-to-face interview and oral examination of the participants. The questionnaire was developed in English and then translated to Bangla. For interview, we used Bangla version. The pre-testing was conducted in Jamia Islamia Mazharul Ulum Madrasha and Eatimkhana, at Mirpur-1, Dhaka. Apart from sociodemographic checklist, questions were asked relating to the oral health seeking behaviour, which included seeking healthcare in the last year, causes of illness, trust on service provider, distance to the healthcare facility, self-medication practices, health outcomes etc. Data was collected, compiled, checked and later analyzed by using Statistical Package for Social Sciences (SPSS) version 27.0 for Windows. Data was presented as frequency and percentage in tabulated form.

The study was approved by the Institutional Review Board of the National Institute of Preventive and Social Medicine (NIPSOM), Dhaka, Bangladesh (NIPSOM/IRB/2023/06). After taking informed written consent from the caregiver of the orphanage, assent was taken from each child enrolled in the study.

Results

The mean age of the participants was 10.96±2.52 years. 87.33% were boys and 12.67% were girls;

male-female ratio was 6.9:1. Among the respondents, 96% were Muslims. 46.6% of the participants had studentship in from class-I to class-IV, while 41.5% were from class-V to class-VIII. 48% of them were from urban area, while 45% were from rural area; however, 7% did not know anything about their home district. 48.5% of the children's duration of stay in the orphanage was less than 2 years, while 35% of them were staying in the orphanage between 2 and 5 years (Table-I).

Table-I: Sociodemographic characteristics of the participants (n=371)

Variables	Category	Frequency	Percentage
Age group	6 to 9 years	102	27.5
	10 to 13 years	217	58.5
	14 to 17 years	52	14.0
Gender	Male	324	87.33
	Female	47	12.67
Religion	Muslim	356	96
	Non-Muslim	15	4
Studentship	Class I to IV	173	46.6
	Class V to VIII	154	41.5
	Class IX to XII	44	11.9
Habitat	Urban	178	48
	Rural	167	45
	Do not know	26	7
Duration of stay in the orphanage	<2 years	180	48.5
	2 to 5 years	130	35.0
	5 to 8 years	28	7.5
	>8 years	33	8.9

Among those children, 50.9% reported for seeking oral healthcare. 39.6% sought oral healthcare due to toothache and decay, while 5.9% respondents told about mobility of teeth. Most of them (42.6%) went to the local pharmacy, while 36.7% reported to the government facilities and 18.6% to private facilities. Surprisingly, only 0.8% reported to their own institutional physician for oral healthcare. 81.4% of the orphan children told that they could avail healthcare facilities within 1 kilometre, and for 12.9%, it was 2-3 kilometers away. For self-medication practices, 68.8% argued about easily available medications (including over-the-counter drugs), while 18.8% respondents indicted towards the cost of doctor visit. 62.5% had cure or improvement, while 2.7% could prevent further illness; however, 9.4% had no cure at all (Table-II).

Table-II: Oral health seeking behaviour of the participants (n=371)

Variables	Category	Frequency	Percentage
Oral healthcare seeking in the last year	Yes	189	50.9
	No	182	49.1
Causes of illness	Toothache and decay	147	39.6
	Bleeding from gum	17	4.6
	Mouth ulcer	3	0.8
	Mobility of teeth	22	5.9
Trust and confidence on service provider	Institutional physician	3	0.8
	Government facility	136	36.7
	Private facility	69	18.6
	Local pharmacy	158	42.6
	Homeopathy and herbal practitioners	5	1.3
Distance to the healthcare facility	Within 1 km	302	81.4
	2-3 km	48	12.9
	4-5 km	5	1.3
	More than 5 km	16	4.3
Causes behind self-medication practices	Easily available (including OTC drugs)	88	23.7
	Cost of doctor visit	24	6.5
	Lack of time	8	2.2
	Others	8	2.2
Outcome	Prevention of further illness	10	2.7
	Cured/symptoms improved	233	62.8
	Not cured	35	9.4

Discussion

The findings of the present study showed that oral health problems are quite prevalent in children living in orphanages; however, they have multiple barriers like lack of knowledge, access to information, dental facilities and finance. The study also revealed an unmet need of oral healthcare among orphan children living in Dhaka city, Bangladesh. It is obvious that in resource-poor settings of LMICs, children from disadvantaged backgrounds are more vulnerable and have little or no access to oral health information and services.[5,6,10]

In the present study, about 51% of the participants sought oral healthcare in the past 1 year. This is in contrast with the results of the previous studies. In India, Unnikrishnan et al. observed that 71% of the study participants never made a dental visit,[11] and Shanbhog *et al*. showed that only 11.3% of children in orphanage visited a dentist in the same region.[12] In Pakistan, Khedekar *et al*. reported that 98% of orphans did not receive any dental treatment.[2] Similar findings were reported on disadvantaged school children living in remote rural areas of Bangladesh.[14]

A previous study done in Saudi Arabia showed that compared to the orphan group, a greater proportion of children who live with their parents attended the dentist, while orphans only received emergency care (trauma or acute pain). In contrast to medical awareness, this demonstrated the lack of dental awareness in the orphanage facilities regarding the significance of routine dental appointments. More tooth discolouration was observed in orphans, which may have been caused by increased dental damage from falls and fights, higher levels of caries, poorer oral hygiene, or a combination of these factors.[13] Therefore, oral health status needs to be improved overall in LMICs like Bangladesh, especially for the marginalized group of population (e.g., orphan inmates) through increase availability of access to oral healthcare and health education.[10]

Preventative dental care for children encompasses essential practices aimed at maintaining oral health and preventing issues. Early oral health care is vital as it establishes good dental hygiene habits and reduces the risk of common dental issues such as cavities. Oral health interventions whether on an individual, community or professional level, are essentially all directed towards prompting a change in oral health behaviour to improve the patients' oral health.[15]

Our study had a small sample size and from only one city of Bangladesh; further studies on a larger representative sample from different regions of the country could provide a clearer picture on the epidemiologic prevalence and influence of various factors on oral health status of orphanage resident children.

Conclusion

Our study results showed an unmet need of oral healthcare among orphan children living in Dhaka city, Bangladesh. Regular dental check-ups and screenings are crucial for children's oral health; children should visit the dentist for preventative dentistry services at least twice a year. Besides, government should take measures like school-based dental initiatives that can play a significant role in promoting preventative dental care among children of the country especially those belong to the marginalized group. These programmes can provide accessible dental screenings and education directly within the school environment, ensuring that even children from families with limited access to dental services receive vital oral health care.

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