



## OPEN ACCESS

### Key Words

Adolescent girls, orphanages, menstrual hygiene, personal hygiene

### Corresponding Author

Dr. Amrut Swami,  
Community Medicine Dr. S. S.  
Tantia Medical College, Hospital and  
Research Centre, Sri Ganganagar,  
Rajasthan, India  
draaswami@gmail.com

### Author Designation

<sup>1</sup>PhD Scholar  
<sup>2,4</sup>Assistant Professor  
<sup>3,5</sup>Associate Professor

**Received:** 25 September 2024

**Accepted:** 29 December 2024

**Published:** 03 January 2025

**Citation:** Dr. Ashwini B. Sapkal, Dr. Anuradha Kunal Shah, Dr. Swati Deshpande, Dr. Akshay More and Dr. Amrut Swami, 2025. Personal Hygiene Status of Adolescent Girls Living in Orphanages of a Metropolitan City. Res. J. Med. Sci., 19: 451-455, doi: 10.36478/makrjms.2025.1.451.455

**Copy Right:** MAK HILL Publications

## Personal Hygiene Status of Adolescent Girls Living in Orphanages of a Metropolitan City

<sup>1</sup>Dr. Ashwini B. Sapkal, <sup>2</sup>Dr. Anuradha Kunal Shah, <sup>3</sup>Dr. Swati Deshpande, <sup>4</sup>Dr. Akshay More and <sup>5</sup>Dr. Amrut Swami

<sup>1-3</sup>Department of Community Medicine Seth G. S. Medical college and KEM Hospital Parel Mumbai, India

<sup>4</sup>Department of Radiology, Lokmanya Tilak Municipal General Hospital and Lokmanya Tilak Municipal Medical College, Sion, Mumbai, India

<sup>5</sup>Community Medicine Dr. S. S. Tantia Medical College, Hospital and Research Centre, Sri Ganganagar, Rajasthan, India

### ABSTRACT

Adolescence is a fascinating period of life that marks the transition from being a dependent child to an independently functional adult. Very few studies are conducted on this special vulnerable group of adolescent girls in orphanages. Therefore, this study was conducted to assess the personal hygiene status, vision about the future, current health status of adolescent girls living in orphanages in a metropolitan city. This cross-sectional study was conducted among 214 adolescent girls (10-19 years) living in orphanages in Mumbai city from September 2019 to September 2020. A pre-validated, semi-structured questionnaire was used. Face-to-face interviews were conducted. Clinical examination was done in a separate closed room and privacy was maintained. This study was conducted among 214 adolescent girls living in orphanages. The median duration of stay in the orphanage was 21.25 years. A total of 193 (90.2%) girls had heard about menstruation, of which 185 (86.4%) had attained menarche. Pads were disposed of by the majority of the girls by wrapping them in paper and disposing of them in the dustbin (176, 95.13%). The present study highlights a few good practices like hand washing followed by the participants. Special attention should be given for maintaining overall hygiene of the adolescents in orphanages.

## INTRODUCTION

For destitute and orphaned children misfortune is like a part of their life. The number of impoverished children and orphan kids in our country is quite high. There are around 20 million orphans in India and this number is projected to only increase. The majority of these children are abandoned by their parents in one or the other way. In fact, only 0.3% of these orphans are children whose parents have actually died<sup>[1]</sup>. The higher proportion of abandoned children among orphans also highlights the fact that poverty could be one of the reasons for this. Orphans seek admission to orphanages for food, shelter and perhaps education. There is a steady rise in the number of such organizations, either run by the state or some voluntary agencies<sup>[2]</sup>. In India, there are many orphanages sponsored by various NGOs. Most of the time these orphanages give shelter to these distraught kids who got separated from happy family life in their early days and grew up in a very tough and demanding situation later. So, it is quite evident that these orphans need kindness, attention, affection and edification. There are approximately 1000 orphanages in India<sup>[3]</sup>. Adolescence is a fascinating period of life that marks the transition from being a dependent child to an independently functional adult. Change occurs due to hormonal changes in conjunction with social structure. They have sexual and reproductive health needs different from those of adults who remain poorly understood in most parts of the world<sup>[2]</sup>. Changes in thoughts, attitudes and early physical and reproductive maturity than psychological and social maturity occurs. Biological, cognitive, self-concept and self-esteem, sexuality and morality and relationship with family, peers and society are all developing. Adolescents also suffer from nutritional disorders, recurring infectious diseases, substance abuse, high-risk sexual behaviour and mental health problems<sup>[4]</sup>. These problems are more common in adolescents living in an orphanage<sup>[5]</sup>. Very few studies are conducted on this special vulnerable group of adolescent girls in orphanages. Therefore, this study was conducted to assess the personal hygiene status, vision about the future, current health status and morbidity profile of adolescent girls living in orphanages in a metropolitan city.

## MATERIALS AND METHODS

**Study Design:** Selection and Description of Participants: This cross-sectional study was conducted among 214 adolescent girls (10-19 years) living in orphanages in Mumbai city from September 2019 to September 2020. There were 55 orphanages in Mumbai during the study period, of which 47 were within the city limits. Of these, 17 were registered under "District Women and Child Development Officer, Mumbai City". These orphanages have been functional

for the past 60 years. Eight out of these are exclusively for orphan girls. Of these five were selected as per feasibility. A complete enumeration of all girls in these orphanages was done.

**Technical Information:** A pre-validated, semi-structured questionnaire was used. Face-to-face interviews were conducted.

**Ethics:** Ethical clearance (EC/166/2017) was obtained and written informed consent was taken from all girls above 18 years and assent were taken from their supervisor. Clinical examination was done in a separate closed room and privacy was maintained.

**Statistics:** Data analysis was done in SPSS version 22.0 (IBM). Descriptive statistics like percentages, proportions, mean and SD were used.

## RESULTS AND DISCUSSIONS

This study was conducted among 214 adolescent girls living in orphanages. Their baseline characteristics are given in (Table 1). The median duration of stay in the orphanage was 21.25 years.

**Menstrual History and Personal Hygiene Status:** A total of 193 (90.2%) girls had heard about menstruation, of which 185 (86.4%) had attained menarche. The age at menarche in all girls was 11-14 years. The mean duration of blood flow during menstruation was 4.5 days. All girls were provided with one packet of sanitary pads each month and an extra pack as per need. The periods were regular in 157 (84.86%) girls. The average number of sanitary pads used was three or more in all the girls. Pads were disposed of by the majority of the girls by wrapping them in paper and disposing of them in the dustbin (176, 95.13%) followed by flushing in the toilets (9, 4.86%). Variables used for assessment regarding personal hygiene are given in (Table 2). All residents were provided with soaps, shampoo, hair oil, toothbrush and toothpaste for personal use. Common bathrooms and lavatories were present which were cleaned by the residents themselves on a rotation basis. Water for drinking purposes was stored in covered steel containers in all orphanages and was in sufficient quantity.

Because orphans belong to a special vulnerable group, it is of utmost importance to address their health issues so that appropriate and timely intervention can be taken. This study was conducted to study the morbidity profile of adolescent girls residing in orphanages. Out of 214 participants, it was seen that the majority (38.78%) of girls belonged to 14-16 years of age group. About 68% were residents of Mumbai city. It was also noted that none of the children were exempted from schooling and 44.4% participants were

**Table 1: Baseline Characteristics of Study Participants (n=214)**

Baseline characteristics		Number	Percentage
Age group (years)	10-13	55	25.7
	14-16	83	38.78
	17-19	76	35.51
Area of residence	Mumbai	146	68.22
	Outside Mumbai	52	24.29
	Outside state	16	7.47
Education	Primary	10	4.7
	Secondary	73	34.1
	High school	95	44.4
	College	36	16.8
Reason for residing in orphanage	Financial constraints	93	43.4
	Single parent	73	34.1
	Street children brought in by police	48	22.4
Duration of stay in orphanage	≤1 year	33	15.4
	2-5 year	90	42.05
	6-10 year	58	27.1
	>10 year	33	15.4

**Table 2: Personal Hygiene Status of Study Participants (n=214)**

Variables assessing Personal hygiene status		Number	Percentage
Provision of clothes	Orphanage	197	92.1
	Home	17	7.9
Frequency of supply of clothes	1-2 times/Year	19	8.9
	3-4 times/Year	195	91.1
Washing of clothes	Self	195	91.1
	Older siblings in orphanage/Helper	19	8.9
Regular bathing (at least once daily)		200	93.5
Frequency of using soap	Daily	202	94.4
	Once a week	4	1.9
	Twice a week	8	3.7
Water supply	Continuous	148	69.2
	Intermittent	66	30.8
Frequency of hair washing	Daily	80	37.4
	Once a week	20	9.3
	Twice a week	114	53.3
Dandruff/ hair lice/ other scalp problems		187	87.4
Brushing of teeth twice daily		93	43.45
Regular dental check-ups		211	98.6
Changing of toothbrush	Monthly	21	9.8
	Once in 2 months	67	31.3
	Once in 3 months	126	58.9
Washing hands always with soap and water before and after eating		202	94.4
Washing hands always with soap and water after using toilets		201	93.92
Frequency of cleaning bathrooms and lavatories	Daily	63	29.4
	Once a week	87	40.6
	Twice a week	40	18.7
	Thrice a week	24	11.2
Source of drinking water	Tap water	46	21.5
	Water filter	168	78.5

in high school whereas 34.1% were pursuing their secondary education. Major reason for landing up in an orphanage was due to financial constraints faced by parents of the enrolled children. It was seen that 42.05% participants were staying at the orphanage for 2-5 yrs. These findings were consistent with the study conducted by Mayuri Reddy<sup>[5]</sup> which also showed that the majority of children were between the ages of 12 and 16 years (68.3%) while the main reason for children taking admission into orphanages was economic causes (62.6%). Nese Erol<sup>[6]</sup> in their study stated that the mean ages of the youth were 14.6±2.0 in the institutionalized sample and 14.4±2.1 in community care sample. Ravneet Kaur<sup>[7]</sup> in their research observed that out of 292 study subjects 109 (37.3%) belonged to the age group 4-11 years and 183 (62.7%) belonged to the age group 12-17 years. They stated the reason for being in the institute for the majority of the children was that they were abandoned by family (54.8%), runaways (15.8%). Most of the

children in the orphanage had been staying there from 1-5 years (50.3%). Tamil Selvi<sup>[8]</sup> in their study the data indicated that majority of their study participants (47%) belonged to the age group of 18-19 years. With regard to educational status, 33% of the adolescents' girls had education upto the secondary level and ten (67%) had a high school education. Mohamed A. EL Koumi<sup>[9]</sup> while explaining reasons for institutionalization found that out of 265 study subjects from different orphanages 55.09% study subjects due to abandonment followed by disturbed family 20.75%. They also stated that more than half the children (71.7%) had been in their current placement for <2 years. Suboptimal living conditions along with sharing of space with people from diverse backgrounds act as a challenge when it comes to maintaining one's personal hygiene which therefore makes this population more susceptible to various infections. Our study suggests that hand hygiene was followed by majority of girls (94.4%) and also regular

dental check-ups were done in 98.6% participants. New clothes were supplied 3-4 times/year as reported by 91.1% girls however regular washing of clothes was their responsibility. Water supply for both domestic and drinking purposes was satisfactory. It was seen that the frequency of cleaning bathrooms and lavatories was once a week in the majority of the orphanages. Similar findings were noted in a study conducted by Obidul Huq<sup>[10]</sup> which mentioned that 92% of study subjects bathed regularly, 79% washed their hands with water and soap and 95.7% cleaned their teeth regularly but, only 69.3% used toothpaste. Surendra Reddy<sup>[11]</sup> stated that 62% of girls were taking bath regularly, 54.8% of girls wash their hands before a meal, 57.1% girls wash their hands after toilet and 55.2% girls brush their teeth regularly. Cenker ZekiKoyuncuoglu<sup>[12]</sup> observed that 36% study subjects brush teeth twice daily while 50% of study subjects had dental carries. Nimra Shireen<sup>[13]</sup> found that dental caries were seen in 45.2% study subjects. These findings are suggestive of importance of dental hygiene and regular dental check-ups in the orphanages. Similar findings were reported by Susmitha<sup>[14]</sup>.

#### CONCLUSION

The findings highlight that adolescent girls in orphanages maintain satisfactory personal hygiene and menstrual practices, with significant efforts made to ensure their needs are met. A majority of the girls (90.2%) were aware of menstruation and 86.4% had attained menarche, with an average age at menarche of 11-14 years and a mean blood flow duration of 4.5 days. Hygiene during menstruation was commendable, as all girls were provided with sanitary pads, with three or more used on average. Most girls (95.13%) disposed of used pads responsibly by wrapping them in paper and placing them in dustbins, minimizing environmental hazards. Regular menstrual cycles were reported by 84.86% of the girls, reflecting stable health conditions. Comprehensive hygiene kits, including soaps, shampoo, toothbrushes and toothpaste, were supplied for personal use, ensuring the maintenance of cleanliness. The shared bathrooms and lavatories were kept clean by the residents through a rotation system, promoting collective responsibility and hygiene awareness. Additionally, access to safe drinking water stored in covered containers underscored the importance of clean water practices. Overall, the provision of essential resources and the adoption of hygienic practices suggest a well-structured approach to personal and menstrual hygiene among adolescent girls in orphanages.

**Conflict of Interest:** None.

**Source of Funding:** None.

#### REFERENCES

1. Malla, T., I. Rather and N. Yousuf, 2019. A Comparative study of half-orphan and double-orphan adolescents to explore the psychological well-being in orphanage of district Srinagar, Kashmir. *Indian J. Social Psychiatry*, 35: 188-188.
2. Bott, S., S. Jejeebhoy, I. Shah and C. Puri., 2003. Towards adulthood: exploring the sexual and reproductive health of adolescents in South Asia [Internet]. In: World Health Organization., Bott, S., S. Jejeebhoy, I. Shah, C. Puri and editors., (Eds.), World Health Organization., 0 pp.
3. Idele, P., A. Gillespie, T. Porth, C. Suzuki, M. Mahy, S. Kasedde and C. Luo, 2014. Epidemiology of HIV and AIDS Among Adolescents: status, inequities and data gaps. *JAIDS J. Acquired Immune Deficiency Syndromes*, 66: 144-153.
4. Reddy, M. and R. V, 2017. Morbidity profile of children residing in orphanages - A cross-sectional study in Chitradurga, Karnataka. *Int. J. Med. Sci. Public Health*, 6: 1196-1201.
5. Erol, N., D. Öztop and O.O. Özcan., 2008. Epidemiology of Emotional and Behavioral Problems in Children and Adolescents Reared in Orphanages: A National Comparative Study. *Turkish journal of psychiatry.*, Vol. 19.
6. Kaur, R., A. Vinnakota, S. Panigrahi and R.V. Manasa, 2018. A Descriptive Study on Behavioral and Emotional Problems in Orphans and Other Vulnerable Children Staying in Institutional Homes. *Indian J. Psychological Med.*, 40: 161-168.
7. Tamil, S.S., 2014. Research Critique on the Lived-In Experience of Adolescents at Selected Orphanages in Thiruvallur District. *IOSR Journal of Nursing and Health Science (IOSR-JNHS)*, 3: 45-48.
8. Koumi, M.A.E., Y.F. Ali, E.A.E. Banna, U.M. Youssef, M.Y. Raya and A.A. Ismail, 2012. Psychiatric Morbidity among a Sample of Orphanage Children in Cairo. *Int. J. Pediatr.s*, 2012: 1-7.
9. Huq, A.O., T. Chowdhury, P. Roy, K.F. Haque and M.B. Hossa., 2013. Health care facilities and nutritional status of orphans residing in selected orphanage in capital city of Bangladesh. *Int J CurrMicrobiolAppl Sci.*, 2: 118-125.
10. Reddy, S.B., N. Jyothula, I. Kandula and G.S. Chintada, 2019. Nutritional status and personal hygiene of children living in the orphanages of Bhubaneswar: Capital city of Odisha. *Int. J. Of Community Med. And Public Health*, 6: 372-385.
11. Koyuncuoglu, C.Z., M. Kazak, F. Pamuk and E. Çifcibasi, 2017. Oral hygiene habits and oral health status of female adolescents under state protection: a pilot study. *J. Istanbul Uni. Faculty Dent.*, 51: 1-7.

12. Shireen, N. and R. S, 2016. Assessment of oral health hygiene among high school girls of Bengaluru city, India. *Int. J. Community Med. Public Health*, 1: 2335-2339.
13. Susmitha, K.M., C. Jyothi and J. Prabakaran, 2012. Morbidity Pattern among the Adolescent Girls: A Study in the Social Welfare Hostels for Schedule Castes, Nellore City, A.P, India. *Nat. J. Res. Community Med.*, 1: 35-40.