

**Health Status of Tribal Adolescent Girls in Tribal Ashram Schools of Pune District,  
Maharashtra: A Comprehensive Study**

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### **Abstract**

In recent years, there has been growing concern about the health and nutritional status of tribal adolescents, especially girls, in ashram schools in India. These tribal communities, living in geographically isolated areas, often face unique challenges in terms of food habits, socio-cultural practices, and access to healthcare.

This comprehensive study aims to assess the health status of tribal adolescent girls in ashram schools in Pune District, Maharashtra. It also focuses on the specific issue of menstrual health and hygiene management among these girls. The study adopts a mixed-method approach, combining quantitative and qualitative data collection methods. Data was collected from six

ashram schools in the tribal subplan area of Pune District, with a total of 401 tribal adolescent girls participating in the study. The primary data reveals that a significant majority of the girls belong to a low socio-economic status, with varying health profiles between residential girls and day scholars. The study utilized a semi-structured interview schedule to collect data on health status and menstrual health. The mean age of menarche is recorded at 13.94 years. Additionally, in-depth interviews were conducted with school authorities to gain insights into their perspectives on the challenges faced by tribal adolescent girls in ashram schools. The unanimous agreement on girls' reluctance to discuss menstrual cycles with teachers emphasizes the societal taboos surrounding menstruation highlighting the need for awareness programs. The findings underscore the importance of targeted interventions, awareness programs, and infrastructure improvements to enhance the overall well-being of this vulnerable population. It emphasizes the need for comprehensive interventions and policy measures to improve the overall health and well-being of tribal adolescents in ashram schools.

**Keywords:**

Health, Tribe, Ashram school, Adolescent, Menstrual health and hygiene, policy.

**Introduction**

Health is a fundamental determinant of individual well-being, and its study within spatial and temporal dimensions is imperative for a comprehensive understanding. Developing countries, notably India, bear a significant burden of undernourished children, accounting for 35.8% of the global total. Within India, children in tribal communities are particularly susceptible to undernutrition, given their geographically isolated lifestyle, traditional socio-cultural practices, and dietary habits. The assessment of health status becomes pivotal in addressing the unique challenges faced by these communities.

Adolescence, a phase delicately poised between childhood and adulthood, spans the ages of 10 to 19 and represents a crucial juncture marked by profound physical, biological, and social transformations (WHO, 1989). Globally, approximately one-fifth of the population falls within this demographic, with India harboring around 21% of this cohort, amounting to 243 million individuals. This period is characterized by vulnerability, with physical challenges such as delayed growth, acne, and issues related to sexual maturation. Recent years have seen a growing concern for the health status of tribal adolescents, who are often prone to malnutrition and related health problems.

In the state of Maharashtra, the prevalence of child undernutrition and associated health issues is notably high among tribal communities, as indicated by the National Family Health Survey (NFHS-4, 2015-16). Recognizing the urgency of addressing challenges in tribal areas, the state has established a substantial number of Ashram Schools. These schools cater to approximately 3,90,000 tribal girls, comprising 557 aided ashram schools and 552 governmental ashram schools, according to the Tribal Research and Training Institute (TRTI) Pune.

Ashram Schools in Maharashtra serve as unique educational environments designed to address the distinct needs of tribal girls. The girls, hailing from diverse tribal backgrounds and distant locations, reside in a supervised setting, offering not only academic instruction but also a supportive community that addresses their multifaceted challenges. Within this system, girls can be broadly classified into two categories: Residential Girls and Day Scholar Girls.

Residential girls live within the ashram school premises, experiencing a distinct hostel life that significantly influences their academic achievements and health status. Day Scholar Girls, in contrast, reside in nearby villages and commute to the ashram school for education. Understanding the dynamics between these two groups is crucial for comprehending the holistic educational landscape within the Ashram Schools of Maharashtra.

Despite the prevalence of Ashram Schools, existing literature reveals a notable dearth of comparative studies focusing on the challenges faced by tribal adolescent girls within these institutions. Limited information is available concerning the prevalence of behavioral and physical problems within this population, with a specific emphasis on girls, who often represent a distinct cohort within the broader societal context. This study aims to bridge these knowledge gaps by conducting a comprehensive examination of the unique challenges encountered by tribal adolescent girls attending ashram schools.

The significance of this research goes beyond documentation, aiming to illuminate the health status of tribal adolescent girls with a special focus on menstrual health. By delving into the intricacies of their physical, behavioral, and emotional well-being, the study aims to contribute valuable insights that can inform targeted interventions and policy measures. Understanding the nuanced differences between day scholars and residential girls is pivotal in tailoring effective support mechanisms that address the specific needs of these subgroups.

Ultimately, the findings of this study are anticipated to have practical implications for enhancing the overall well-being and educational experience of tribal adolescent girls in the unique context of ashram schools in Pune District, Maharashtra. This research seeks not only to uncover the challenges but also to pave the way for informed interventions that foster the holistic development of tribal adolescent girls in the face of health disparities and educational nuances within the Ashram School setting.

### **Research methodology applied in the research**

The present study employs a mixed-method approach rooted in anthropological dimensions to comprehensively assess the health-related challenges faced by adolescent tribal girls within Ashram schools in the tribal subplan area of Pune District, Maharashtra. The primary objective is to understand and analyze the health status and other associated menstrual health challenges.

**Method:** A mixed-method approach combining quantitative and qualitative data collection methods was adopted, utilizing a cross-sectional study design. Six ashram schools were selected from Ambegaon and Junnar Tehsils in Pune District, which house a significant tribal population according to the census data of 2011.

**Population and Sample:** The study focused on adolescent girls aged 10 to 19 years, as defined by the World Health Organization for the adolescent age group. This transitional period from childhood to adulthood was deemed critical for understanding unique changes and challenges. The total sample comprised 742 tribal girls from the selected ashram schools. Inclusion criteria included achieving menarche and providing assent, while those who did not meet these criteria were excluded. The final sample for the research included 401 girls, with 72.1% (289) being residential girls and 27.9% (112) being day scholar girls.

**Data Collection:** Semi-structured interview schedules were meticulously designed and ethically approved. Additionally, an interview guide for rector and school authorities was prepared to gather insights from key stakeholders. The data collection period spanned from October 2019 to February 2020. The data collection process was streamlined using the Epicollect5 Mobile Data Collection Application.

**Ethical Considerations:** The tools and methodologies were subjected to ethical scrutiny and received approval from the Institutional Ethical Committee of Savitribai Phule Pune University, Pune. Prior permissions were obtained from all relevant stakeholders, including school authorities, before commencing the research. Informed consent was diligently sought from the guardians of the girls, and assent was secured from the girls participating in the study.

**Data Analysis:** The collected data were curated and transferred to SPSS Version 21 for thorough analysis. Quantitative data were subjected to statistical analysis to derive meaningful

insights into health patterns and challenges faced by the tribal adolescent girls within the ashram school setup. Qualitative data were transcribed, translated, and analyzed thematically.

## Primary data

### Health profile

Health status is significantly influenced by factors such as education and economic status, with parental involvement playing a crucial role. The study encompasses adolescent girls from the Mahadev Koli, Thakar, and Katkari tribes, with a predominant 97% belonging to a low socio-economic status. In the preceding three months, a notable 63.3% of residential girls reported a history of illnesses, with fever emerging as a prevalent concern affecting 46.7% of the girls. Within this group, 27.70% were identified as day scholars, while 19% resided in the hostel. It is noteworthy that cough and cold were more prevalent among day scholars (12.50%) compared to residential girls (6.90%).

Moreover, residential girls provided insights into a diverse spectrum of health issues, encompassing acidity (0.30%), back pain (0.30%), chest pain (0.30%), earache, (1%) headache (1.30%), eye infection (1.70%), chickenpox (0.70%), malaria (0.30%), typhoid (1.40%), ringworm (0.30%), toothache (0.30%), and vomiting (1.40%). However, the prevalence of these ailments exhibited a considerable decrease among day scholar girls highlighted in Table 1. This data sheds light on the distinctive health challenges faced by tribal adolescent girls attending ashram schools, underscoring variations in health profiles between day scholars and residential girls.

Table 1: Sickness profile of Residential and day scholar girls of ashram schools.

Sr. No.	Sickness	Residential girls	Day Scholar girls
1.	Acidity	0.30%	0.00%
2.	Back Pain	0.30%	0.00%
3.	Chest Pain	0.30%	0.90%
4.	Chicken pox	0.70%	0.00%
5.	Cough cold	6.90%	12.50%
6.	Earache	1.00%	0.00%
7.	Eyes infection	1.70%	1.80%
8.	Fever	19.00%	27.70%
9.	Headache	1.30%	1.00%
10.	Malaria	0.30%	0.00%
11.	Ringworm	0.30%	0.00%
12.	Stomach-ache	1.40%	2.70%
13.	Toothache	0.30%	0.00%
14.	Typhoid	1.40%	2.70%

Sr. No.	Sickness	Residential girls	Day Scholar girls
15.	Vomiting	1.40%	0.00%

### Menstrual health

In the context of menarche, which denotes the onset of menstruation and represents a unique phase in a woman's life, this event marks not only the commencement of reproductive years but also signifies a pivotal aspect of the transition from childhood to adulthood, commonly known as puberty. The mean age of menarche is recorded at 13.94 years. The data indicates a higher reported age of menarche within the 13 and 14 age group as shown in Table no 2. From the data, some girls also exhibit early and late menarche reflected.

Table no 2: Age of menarche

Age of menarche				
Age	Frequency	Percent	Valid Percent	Cumulative Percent
11	7	1.7	1.7	1.7
12	44	11.0	11.0	12.7
<b>13</b>	<b>114</b>	<b>28.4</b>	<b>28.4</b>	<b>41.1</b>
<b>14</b>	<b>124</b>	<b>30.9</b>	<b>30.9</b>	<b>72.1</b>
15	57	14.2	14.2	86.3
16	33	8.2	8.2	94.5
17	15	3.7	3.7	98.3
18	6	1.5	1.5	99.8



Age of menarche				
Age	Frequency	Percent	Valid Percent	Cumulative Percent
19	1	.2	.2	100.0
Total	401	100.0	100.0	

Within a sampled population, 97% of girls experience regular menstrual cycles, while 3% encounter challenges during this phase, with a higher prevalence of menstrual problems observed among residential girls. Notably, 71.57% of girls disclosed purchasing sanitary napkins using Direct Benefit Transfer (DBT) funds, and 26.18% received sanitary napkins directly from the school's rector. Sanitary napkin disposal is addressed through various means in ashram schools, where a dedicated machine is provided.

In addressing the challenge of sanitary napkin disposal in rural areas, both government and NGOs have taken proactive measures by introducing vending machines and disposal machines in Ashram schools. According to the data, a significant majority (77.30%) reported the presence of a sanitary napkin disposal machine, while 22.25% noted that the available machine was not in working condition. Intriguingly, 1.9% of girls disclosed not using the disposal machine.

Moreover, 18.70% of day scholar girls pointed out a notable inequality in access, revealing that only residential girls in the hostel are permitted to utilize the sanitary napkin disposal machine. A closer look at disposal practices indicates that 62.59% of girls incinerate sanitary napkins, 5.48% bury them in the soil, 1.49% discard them in the garbage, and 0.99% dispose of them in running water.

This sequence of information provides a comprehensive understanding of the efforts made to address the issue of sanitary napkin disposal and the variations in utilization across different groups within Ashram schools in Pune District, Maharashtra.

This comprehensive overview sheds light on the multifaceted aspects of menstrual health and management practices among tribal adolescent girls in Pune District's ashram schools.

### **School authority Opinion**

In the in-depth interviews with the ashram school rector and teachers, various perspectives were highlighted. Some rectors emphasized concerns about girls' dietary habits and hygiene practices, attributing these factors to the weakness observed in girls during menstruation. A unanimous agreement emerged among them regarding girls' reluctance to discuss menstrual cycles and related issues with teachers.

Additionally, both teachers and rectors underscored the necessity for menstrual health and hygiene awareness programs within ashram schools. Notably, they pointed out that only a small percentage (2.4%) of girls use cloth pads during menstruation, and all of them are day scholar girls. However, they are also pleased that the transition to using sanitary napkins has occurred among the girls.

The challenges faced by tribal ashram schools, situated in remote areas, were also addressed by the authorities. They highlighted the difficulties arising during emergencies, such as snake bites, due to the considerable distance from the taluka place. Moreover, the authorities mentioned organizing a monthly personality development program for skill enhancement, coupled with health check-up camps conducted by nearby Primary Health Centres (PHC). This reorganization of information provides a coherent narrative on the insights gleaned from interviews with the ashram school staff, offering a comprehensive understanding of the various issues and perspectives relevant to the study.

## Discussion

**1. Health Disparities and Varied Profiles:** The primary data presented in this study sheds light on the multifaceted challenges faced by tribal adolescent girls in ashram schools in Pune District, Maharashtra. A significant majority (97%) of the girls belong to a low socio-economic status, indicating a vulnerable demographic. The reported health issues, such as fever and respiratory problems, are prevalent, particularly among residential girls, emphasizing the need for targeted health interventions. These findings align with existing literature emphasizing the impact of socioeconomic factors on health outcomes (Quon, E. C., & McGrath, J. J. (2014))

The variation in health profiles between day scholars and residential girls underscores the influence of living arrangements on health. Similar findings have been reported in studies examining the health of boarding schoolgirls. The health of adolescent girls needs to be understood against the background of their experiences of living conditions. One way to support their health and well-being seems to be to supply them with forums where they can talk about their living conditions. (Larsson, M., Johansson Sundler, A., & Ekebergh, M. (2012))

The unique challenges faced by residential girls, including dietary habits and hygiene practices, call for tailored health interventions and awareness programs.

**2. Menstrual Health:** Menstrual health emerges as a critical aspect of the study, emphasizing the need for a holistic approach. The mean age of menarche aligns with global patterns (UNICEF, 2020), emphasizing the universality of this transitional phase. However, the elevated prevalence of menstrual problems among residential girls indicates specific challenges within this setting. There is a need to educate girls about menstruation, its importance, and hygiene maintenance to enable them to have a healthy and productive life in the future (Patil, S.B. (2018)).

The reliance on Direct Benefit Transfer (DBT) funds for sanitary napkin purchases highlights the socio-economic constraints influencing menstrual hygiene practices. This aligns with global initiatives emphasizing the economic barriers to menstrual health. The presence of sanitary napkin disposal machines, despite issues of functionality, signifies positive efforts by the government and NGOs. Comparative studies on the effectiveness of such interventions could provide insights into improving infrastructure and addressing disparities in access. Garg (2011) addresses the issue of menstrual hygiene in India and the government's subsidized sanitary napkin scheme for rural adolescent girls, emphasizing the importance of addressing various issues such as awareness, availability, quality, and disposal of napkins. Mohite (2016) focuses on menstrual hygiene practices among slum adolescent girls in Karad city, revealing poor practices and a high reliance on reusable cloth materials. This indicates that the presence of sanitary napkin disposal machines is part of broader efforts by the government and NGOs to address menstrual hygiene issues.

**3. School Authority Perspectives:** Insights from school authorities corroborate the challenges identified in the primary data. Concerns about dietary habits impacting girls' health resonate with findings from studies on nutrition in tribal populations (Sridhar, D., & Gauthami, N. (2017). The unanimous agreement on girls' reluctance to discuss menstrual cycles with teachers emphasizes the societal taboos surrounding menstruation (Gundi, M., & Subramanyam, M.A. (2019).), highlighting the need for awareness programs.

The challenges faced by tribal ashram schools in remote areas align with broader discussions on the accessibility of healthcare services in rural settings (Honakeri, D.P. (2018)). Organizing personality development programs and health check-ups aligns with global efforts emphasizing holistic education and health interventions (WHO, 2022).

## Conclusion

In conclusion, the primary data, when contextualized with existing research, provides a nuanced understanding of the health challenges faced by tribal adolescent girls in ashram schools. The findings underscore the importance of targeted interventions, awareness programs, and infrastructure improvements to enhance the overall well-being of this vulnerable population. Integrating insights from both primary and secondary sources contributes to a more holistic approach to addressing health disparities and promoting menstrual health in tribal ashram schools.

Moreover, the above studies collectively highlight that the health aspects of tribal adolescents in India are a matter of concern. There is a need for more research in this area to develop effective strategies and interventions to address the problem-related health issues among this vulnerable population. The research topic is an important step towards addressing this issue in the Pune district of India. It emphasizes the need for comprehensive interventions and policy measures to improve the overall health and well-being of tribal adolescents in ashram schools.

## Recommendations

**Implement Targeted Interventions:** The findings of the study highlight the pressing need for targeted interventions aimed at addressing the health challenges faced by tribal adolescent girls in ashram schools. Implementing specialized programs focused on nutrition, hygiene, and mental health can contribute significantly to improving their overall well-being.

**Enhance Awareness Programs:** It is crucial to enhance and expand awareness programs within ashram schools. These programs should not only focus on menstrual health but also address broader health disparities and socio-cultural taboos. Engaging girls, parents, and teachers in these awareness initiatives can foster a more informed and supportive environment.

**Regular Health Check-ups and Counselling Services:** Establishing regular health check-ups within ashram schools, coupled with counseling services, can contribute to the early identification and management of health issues. Collaborating with local health authorities and professionals can facilitate the implementation of these services.

## Reference

1. Garg, R., Goyal, S., & Gupta, S.K. (2012). India Moves Towards Menstrual Hygiene: Subsidized Sanitary Napkins for Rural Adolescent Girls—Issues and Challenges. *Maternal and Child Health Journal*, 16, 767-774.
2. Gundi, M., & Subramanyam, M.A. (2019). Menstrual health communication among Indian adolescents: A mixed-methods study. *PLoS ONE*, 14.
3. Hemalata shedage and Shaunak Kulkarni, 2011, Early Childhood Growth among Mahadev Koli Tribe of Maharashtra., *Voice of Intellectual Man Vol 1 No 1*, 63-78
4. Honakeri, D.P. (2018). Impact of Ashram Schools Issues and Challenges of Tribal Education in India.
5. Larsson, M., Johansson Sundler, A., & Ekebergh, M. (2012). The influence of living conditions on adolescent girls' health. *International journal of qualitative studies on health and well-being*, 7 1, 19059.
6. Mohite, R., & Mohite, V.R. (2016). Menstrual hygiene practices among slum adolescent girls. *International Journal of Community Medicine and Public Health*, 3, 1729-1734.
7. National Family Health Survey (NFHS 3,4). Maharashtra (2015-16). Mumbai; International Institute of Population Sciences.
8. Noll, M., Noll, P. R. E. S., Tiggemann, C. L., Custodio, D. C., & Silveira, E. A. (2020). Health-risk behavior differences between boarding and non-resident girls: Brazilian adolescent National School Health Survey.
9. Patil, S.B. (2018). Knowledge and Practice Gap for Menstrual Hygiene among Adolescent School Girls of Tribal District of Maharashtra, India: A Cross-Sectional Study. *Indian Journal of Youth and Adolescent Health*.

10. Preeti Prabhune and Shaunak Kulkarni, 2016, Health- Seeking Behavior and Disease Pattern of the Bhil Nandurbar District of Maharashtra., *The Asian Man*, Vol. 10, Issue 2, 185-193
11. Quon, E. C., & McGrath, J. J. (2014). Subjective socioeconomic status and adolescent health: A meta-analysis. *Health Psychology*, 33(5), 433–447.
12. Sridhar, D., & Gauthami, N. (2017). Menstrual health status and cultural practices of tribal adolescent girls. *International Journal of Community Medicine and Public Health*, 4, 4120.