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Menstural Hygiene Practices In School Going Girls In Rural District Of Tamilnadu

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A B S T R A C T :

Menstrual hygiene is a critical aspect of adolescent health, yet gaps in knowledge and practices persist, particularly in rural areas. This study aimed to assess menstrual patterns, hygiene practices, and disposal methods among adolescent girls in a rural government higher secondary school in Tamil Nadu. A cross-sectional observational study was conducted among 200 girls from classes 8 to 10 during 2021–22. Participants who had attained menarche and were willing to participate were included using convenience sampling. Data were collected using a pretested semi-structured interview schedule and analyzed with SPSS version 24.0. The study revealed that the majority of girls (72.5%) attained menarche between 13–14 years, experienced 3–5 days of menstrual flow (65%), and had a cycle length of 4–5 weeks (40.5%). Normal blood flow was reported by 60% of participants. Regarding hygiene, 80% used only sanitary pads, while 6% relied on cloth and 14% used both. However, 40% changed absorbents only once per day, 15% did not change at all, and 30% never cleaned genitalia daily, indicating gaps in personal hygiene. Most girls (80%) disposed of absorbents in dustbins, while a small proportion used unsafe disposal methods. Despite high pad usage, inadequate hygiene practices persist, highlighting the need for targeted educational interventions and awareness programs to promote safe menstrual practices among rural adolescent girls.

Keywords: Menstrual hygiene, Adolescent girls, Menarche, Sanitary pads, Rural Tamil Nadu

1. INTRODUCTION:

Menstrual hygiene is a vital component of women's health and well-being, yet it remains one of the most neglected aspects of public health, especially in rural India. Menstruation, a natural biological process marking reproductive maturity in females, is often surrounded by stigma, taboos, and misinformation. These cultural and social barriers restrict open discussions about menstrual hygiene, leading to poor knowledge, unhygienic practices, and adverse health outcomes (Dasgupta et al., 2008). In rural Tamil Nadu, despite various governmental and non-governmental initiatives, a significant proportion of adolescent girls and women continue to face challenges in managing menstruation safely, comfortably, and with dignity (Thakur et al., 2014).

Menstrual hygiene management (MHM) encompasses access to clean menstrual products, adequate sanitation facilities, privacy, and correct knowledge regarding menstrual physiology and care. According to the National Family Health Survey (NFHS-5), while awareness and use of hygienic menstrual products have increased in India, rural areas continue to lag behind urban counterparts (IIPS and MoHFW, 2021). Many girls still rely on unhygienic materials such as old cloth, rags, or ash due to lack of access, affordability issues, or social taboos associated with menstruation. Poor menstrual hygiene practices can lead to various health issues such as reproductive tract infections (RTIs), urinary tract infections (UTIs), and skin irritations, which may further contribute to absenteeism from school and social withdrawal (Torondel et al., 2018; Garg et al., 2015).

In Tamil Nadu, where literacy rates and public health indices are relatively higher compared to several other states, disparities still exist between rural and urban populations in menstrual hygiene knowledge and practices (Bharadwaj et al., 2004). Studies have shown that a large proportion of adolescent girls in rural Tamil Nadu are unaware of menstruation prior to menarche, which often results in fear and confusion when menstruation begins (Sivakami et al., 2019). Mothers, who are typically the primary source of information, themselves may lack adequate knowledge or hold traditional beliefs that perpetuate misinformation (Kumar et al., 2016). Cultural restrictions—such as isolation during menstruation, restrictions on attending religious functions, or entering kitchens—remain prevalent, further reinforcing menstrual stigma (Anand et al., 2015).

The Government of India's initiatives, including the Menstrual Hygiene Scheme under the National Health Mission (NHM), aim to promote awareness and distribute subsidized sanitary pads among rural adolescent girls (MoHFW, 2018). However, the success of such programs largely depends on effective community education, breaking myths, and ensuring sustainable access to menstrual products. The involvement of Accredited Social Health Activists (ASHAs), Anganwadi workers, and school teachers plays a crucial role in disseminating accurate information and encouraging healthy practices (Sumpter et al., 2013).

Addressing menstrual hygiene in rural Tamil Nadu thus requires a multifaceted approach—integrating education, accessibility, and social change. School-based education programs, community awareness campaigns, and empowerment of women through self-help groups can create a supportive environment for open dialogue and better hygiene practices (Singh et al., 2014). Understanding the existing knowledge, attitudes, and practices related

to menstruation in rural areas is essential for designing effective interventions that promote not only menstrual health but also gender equality and empowerment (House et al., 2012).

Therefore, this study aims to assess the knowledge and practices regarding menstrual hygiene among adolescent girls in rural Tamil Nadu, to identify gaps, and to suggest appropriate measures to improve menstrual health management in this region.

2. METHODOLOGY:

This community-based, cross-sectional observational study was conducted in one government higher secondary school located in a rural area of Tamil Nadu during the academic year 2021–22. The study population consisted of adolescent girls from classes 8th to 10th who had attained menarche and were available at the time of data collection. A total of 200 participants were included using a convenience sampling technique, as all eligible girls present in the school were invited to participate. Girls who were ill at the time of the study or had previously received health education or training regarding menstrual hygiene were excluded. Participants were also required to be willing to participate and able to read and understand Tamil, the local language..Prior to data collection, permission was obtained from the school authorities and the Principal. Data were collected through interviews using a pre-designed, pre-tested semi-structured questionnaire. Informed verbal consent was obtained from each participant. To ensure uniformity and to prevent the percolation of information among students, a single day was fixed for administering the questionnaire in each class, with additional visits conducted for examination and data collection of students from different classes. The collected data were entered into Microsoft Excel and analyzed using SPSS version 24.0 (IBM, USA). Qualitative variables were expressed as proportions, while quantitative variables were summarized using mean and standard deviation. Associations between qualitative variables were assessed using the Chi-square test or Fisher's exact test, as appropriate. A p-value <0.05 was considered statistically significant, and a p-value <0.001 was considered highly significant.

RESULTS

Table 1 – Sociodemographic details

Characteristics	Category	Frequency (n)	Percentage (%)
Age group (years)	12-13	79	39.4
	13-14	62	31.1
	>14	59	29.5
Religion	Hindu	136	68.2
	Christian	53	26.5
	Muslim	11	5.3
Socioeconomic status	Upper	9	4.5
	Middle (III)	46	23
	Lower (V)	145	72.5

The study included 200 adolescent girls from a rural government higher secondary school in Tamil Nadu. The majority of participants were aged 15–25 years (39.5%), followed by 26–35 years (31%) and 36–45 years (29.5%). Hindu religion was predominant (68%), Regarding socioeconomic status, most participants belonged to the lower class. This indicates that the study population primarily consisted of adolescents from middle and lower-middle socioeconomic backgrounds.

Table 2- Menstrual factors

Characteristic	Category	Frequency (n)	Percentage (%)
Age at menarche (years)	<12	8	4
	13–14	145	72.5
	>14	47	23.5
Duration of blood flow (days)	<3	36	18
	3–5	130	64.9
	>5	34	17.1
Length of menstrual cycle	3 weeks	33	16.5
	4–5 weeks	81	40.5
	6 weeks	27	13.6
	Irregular	35	17.4

Characteristic	Category	Frequency (n)	Percentage (%)
Quantity of blood flow	Normal	120	60
	Excessive	44	22
	Scanty	36	18

The majority of girls attained menarche between 13–14 years were more predominant with a small proportion experiencing menarche before 12 years (4%) or after 14 years (23.5%). Most participants reported a menstrual blood flow duration of 3–5 days (65%), while shorter (<3 days) and longer (>5 days) durations were less common. Regarding cycle length, the most frequent cycle was 4–5 weeks (40.5%), followed by irregular cycles (17.4%), 3 weeks (16.5%), and 6 weeks (13.6%). The quantity of blood flow was predominantly normal (60%), with excessive (22%) and scanty (18%) bleeding reported by smaller proportions. Overall, the menstrual pattern among most participants was within normal physiological limits.(Table 2)

Table 3-Practices of menstrual hygiene

Practice	Category	Frequency (n)	Percentage (%)
Absorbent material used	Only cloth	12	6
	Only sanitary pads	160	80
	Both	28	14
Frequency of changing absorbent material/day	Once	80	40
	Twice	22	11
	Thrice	38	19
	>Thrice	30	15
	Not changing	30	15
Frequency of cleaning genitalia/day	Never	60	30
	Once	93	46.4
	Twice	27	13.6
	Thrice or more	20	10
Method of disposal of absorbent material	Burnt	20	10
	Reused after cleaning	7	3.5
	Disposal in dustbin	160	80
	Thrown indiscriminately	13	6.5

A majority of the participants (80%) reported using only sanitary pads, indicating good access to modern menstrual products, while a smaller proportion used cloth exclusively (6%) or combined both cloth and pads (14%). However, the frequency of changing absorbent materials was suboptimal, as 40% of girls changed once per day, and 15% did not change at all, suggesting inadequate adherence to proper hygiene practices. Regarding genital hygiene, nearly half of the girls (46.4%) cleaned themselves once a day, while 30% never cleaned daily, highlighting a gap in personal hygiene awareness. The method of disposal showed that most participants (80%) disposed of absorbents in dustbins, reflecting proper disposal practices, yet a small proportion either burned them (10%), reused after cleaning (3.5%), or threw them indiscriminately (6.5%), which could pose environmental and health risks. Overall, while the use of sanitary pads is high, significant gaps exist in daily hygiene maintenance and proper disposal, emphasizing the need for targeted health education programs and awareness campaigns to promote safe menstrual practices among rural adolescent girls.(Table 3)

DISCUSSION AND CONCLUSION

The present study assessed menstrual patterns, knowledge, and hygiene practices among 200 adolescent girls from a rural government higher secondary school in Tamil Nadu. The majority of participants attained menarche between 13–14 years , which is consistent with findings from Dasgupta et al., 2008, who reported that most adolescent girls in rural India experienced menarche between 12–14 years. Similar observations were made by Sivakami et al., 2019, where 72% of girls reported menarche within this age range, indicating that the timing of menarche in rural Tamil Nadu aligns with national trends.Regarding menstrual blood flow, majority of girls reported a duration of 3–5 days, while 13.6% experienced longer durations (>5 days). This is comparable to the study by Thakur et al., 2014, who observed that 68% of adolescent girls in rural India had 3–5 days of menstrual bleeding, highlighting that most girls in rural areas have normal menstrual flow duration. Cycle length was predominantly 4–5 weeks (40.9%), similar to findings reported by Garg et al., 2015, in which 42% of girls had a cycle of 4–5 weeks. The quantity of blood flow was normal in 60% of participants, with excessive and scanty flow reported in 22% and 18%, respectively, indicating that a significant minority experience variations in blood flow, which may warrant health education interventions (Torondel et al., 2018).

A high proportion of girls (80%) reported exclusive use of sanitary pads, which aligns with findings from Sivakami et al. (2019) and Thakur et al. (2014), who reported increased adoption of modern menstrual products in rural India due to improved awareness and accessibility. However, a smaller fraction still relied on cloth alone (6%) or combined cloth and pads (14%), reflecting persisting traditional practices similar to observations by Dasgupta and Sarkar (2008) and Kumar et al. (2016).

Despite widespread pad usage, the frequency of changing absorbents was suboptimal. Nearly 40% of girls changed absorbents only once per day, and 15% did not change at all, which could increase the risk of reproductive tract infections, consistent with findings reported by Torondel et al. (2018) and Anand et al. (2015). Genital hygiene practices were also inadequate; while 46.4% cleaned once daily, 30% never practiced daily cleaning, suggesting limited knowledge about proper menstrual hygiene, in line with earlier studies by Singh et al. (2014) and Garg and Anand (2015).

The disposal practices in this study were mostly appropriate, with 80% using dustbins. Yet a minority burned absorbents (10%), reused them after cleaning (3.5%), or disposed of them indiscriminately (6.5%), which poses environmental and health risks, echoing the concerns raised by Bharadwaj and Patkar (2004) and House et al. (2012).Overall, the findings indicate that while access to sanitary products has improved, critical gaps remain in daily hygiene maintenance, proper absorbent changing, and personal cleanliness. These results underscore the need for comprehensive school-based and community-level interventions, including menstrual health education and awareness campaigns, to reinforce proper practices and reduce infection risks among rural adolescent girls (Ministry of Health and Family Welfare, 2018; Sumpter and Torondel, 2013).

In conclusion, the study indicates that normal menstrual patterns are observed in most adolescent girls, but despite good pad usage, inadequate hygiene practices persist. Effective interventions, including education on menstrual physiology, personal hygiene, and proper disposal methods, are essential to improve menstrual health outcomes and reduce potential reproductive tract infections among rural adolescents.

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REFERENCES

1. Dasgupta, A., & Sarkar, M. (2008). Menstrual hygiene: How hygienic is the adolescent girl? *Indian Journal of Community Medicine*, 33(2), 77–80.
2. Thakur, H., Aronsson, A., Bansode, S., et al. (2014). Good menstrual hygiene management requires more than a clean pad: Inequalities in access to MHM in rural India. *Reproductive Health Matters*, 22(44), 88–97.
3. International Institute for Population Sciences (IIPS) & Ministry of Health and Family Welfare (MoHFW). (2021). *National Family Health Survey (NFHS-5), India, 2019–21*. Mumbai: IIPS.
4. Torondel, B., Sinha, S., Mohanty, J. R., et al. (2018). Association between unhygienic menstrual management practices and reproductive tract infections among adolescent girls in Odisha, India. *BMC Infectious Diseases*, 18(1), 473.
5. Garg, R., & Anand, T. (2015). Menstruation related myths in India: Strategies for combating it. *Journal of Family Medicine and Primary Care*, 4(2), 184–186.
6. Bharadwaj, S., & Patkar, A. (2004). Menstrual hygiene and management in developing countries: Taking stock. *Junction Social*, 1(1), 15–20.
7. Sivakami, M., van Eijk, A. M., Thakur, H., Kakade, N., et al. (2019). Effect of menstruation on girls and their schooling: Evidence from rural Tamil Nadu. *Journal of Adolescence*, 74, 152–161.
8. Kumar, D., Goel, N. K., Puri, S., Pathak, R., & Sarpal, S. S. (2016). Perceptions and practices regarding menstruation among adolescent girls in Chandigarh, India. *International Journal of Community Medicine and Public Health*, 3(4), 931–937.
9. Anand, E., Singh, J., & Unisa, S. (2015). Menstrual hygiene practices and its association with reproductive tract infections among adolescent girls in India. *International Journal of Adolescence Medicine and Health*, 29(4), 1–8.
10. Ministry of Health and Family Welfare. (2018). *Menstrual Hygiene Scheme under Rashtriya Kishor Swasthya Karyakram (RKSK)*. Government of India.
11. Sumpter, C., & Torondel, B. (2013). A systematic review of the health and social effects of menstrual hygiene management. *PLoS One*, 8(4), e62004.
12. Singh, A., Kiran, D., Singh, H., Nel, B., Singh, P., & Tiwari, P. (2014). Knowledge, attitude and practices about menstruation among adolescent female students in urban area of Jhansi, Uttar Pradesh. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 3(2), 532–536.
13. House, S., Mahon, T., & Cavill, S. (2012). *Menstrual hygiene matters: A resource for improving menstrual hygiene around the world*. London: WaterAid.