

Knowledge, Attitude, And Practice Of Menstrual Hygiene In Females Of Adolescent Age Group: A Cross-Sectional Study In A Tertiary Care Hospital Of Firozabad

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ABSTRACT

Introduction: According to the World Health Organization, sexual and reproductive health issues are rising concern rampant globally, particularly menstrual hygiene, which is a critical concern especially among adolescent girls (10-19 years) that negatively affects their health and empowerment.

Aim and Objectives: To assess knowledge about menstrual hygiene, find out the common practices and identify the prevalent menstrual unhygienic patterns during menstruation in society among adolescent females aged 10-19 years.

Material and Methods: This was an observational, cross-sectional study conducted in the Department of Obstetrics and Gynecology, Autonomous State Medical College, Firozabad on adolescent females aged 10-19 years attending the outpatient department during the period from July 2023 to September 2023.

Observations: 422 adolescent girls with mean age 15.54 ± 3.77 years were included. 74.6% resided in rural areas, 53.3% went toilet in open space outside. The practice of using proper sanitary products was confined to only 12.6% group. Work restrictions were more common in rural population compared to urban areas and this was statistically significant with p value of 0.00139.

Conclusion: This study concludes that menstrual hygiene is a great challenge for young girls particularly residing in rural areas. The health sector and school authorities should play a greater role in creating awareness about menstrual hygiene.

Keywords: Awareness, Menstrual hygiene, Adolescent girls.

Introduction:

According to the World Health Organization (WHO), sexual and reproductive health issues are rising concern rampant globally, particularly menstrual hygiene, which is a critical concern especially among adolescent girls (10-19 years) that negatively affects their health and empowerment.¹

Menstruation is a physiological process defined as “periodic discharge of blood from the uterus that happens about once a month throughout the active reproductive life of a female” but unfortunately it is still deemed taboos and myths in our traditional society, and girls hesitate to discuss regarding this with their family members, friends, or schoolteachers, which creates hurdles when they experience their menarche.

Adolescent girls constitute about one fifth of the world population and about 113 million adolescent girls in the India are vulnerable at the onset of menarche.² They often lack knowledge regarding menstruation probably due to socio-cultural barriers in which they grow up. Religious and cultural myths are often worsened by beliefs about bad spirits and feelings of shame and embarrassment regarding sexual reproduction. Isolation of menstruating girls and restrictions being imposed on them in the family, adds to negative attitude towards this phenomenon.

Unhygienic menstrual practices result in health issues like rashes or itching in the genital area, bad odour, pelvic inflammatory disease, cervical cancer, poor quality of life, and toxic shock syndrome.³ This ultimately contribute to a consistent pattern of school absences, higher rate of dropouts, poor performance in school, and lowered self-confidence.⁴

The poor practice of menstrual hygiene in low and middle income countries has posed a significant challenge due to a lack of awareness or access to menstrual products. It has been reported in the literature that girls and women who want to handle their periods without shame or stigma need to be able to access water, sanitation, and hygiene (WASH) facilities, as well as cheap and suitable monthly hygiene products, knowledge on good practices, and a helpful atmosphere.

Thus, it is alarming to comprehend medical service quality in developing countries like India in order to prevent the adverse consequences of menstrual health issues and efforts should be made to educate girls about practising healthy menstrual hygiene.

According to this line of conceiving, girls in the adolescent age group were surveyed to determine their knowledge, attitudes, and practices about menstrual hygiene management in a tertiary care hospital of Firozabad.

Aim and Objectives:

To assess knowledge about menstrual hygiene, find out the common practices and identify the prevalent menstrual unhygienic patterns during menstruation in society among adolescent females aged 10- 19 years.

Material and Methods:

This was an observational, cross-sectional study conducted in the Department of Obstetrics and Gynecology, Autonomous State Medical College, Firozabad on adolescent females aged 10- 19 years attending the outpatient department during the period from July 2023 to September 2023. After obtaining approval from Institutional Ethical Committee and informed verbal consent from parents and assents from the participants, detailed interview was done explaining the purpose of the study.

Inclusion Criteria:

- Age 10-19 years who had menarche at least 1 year before.
- Unmarried adolescent girls.
- Willing to participate in the study.

Exclusion Criteria:

- Age < 10 years or > 19 years.
- Girls not attained menarche.
- Physically and mentally handicapped girls.
- Not willing to give consent for the study.

All adolescent girls were screened for their baseline information and knowledge, attitude and practices during menstrual cycle in the predesigned questionnaire and the responses were entered and analyzed in Epi info 7.1.3.0 software.

Observations:

The mean age among the study population was 15.54 ± 3.77 years with maximum (45.5%) participants in the group of 13-15 years wherein majority (50.7%) were Hindus by religion, belonging to lower socio-economic status (39.8%) from rural areas (74.6%) residing in joint families (62.1%) of the total study population.

53.3% study population denies toilet facilities at home and went to open space outside. However, among these 91.8% cases had toilet facilities at their school or colleges. Majority participants (45.7%) have water stored at home for daily needs against 23% cases who unfortunately had no water supply at their residence.

Table 1: Demographic Variables among the Study Population

Demographic variables	No. of Subjects (n=422)	Percentage (%)
Age (years)		
10 - 12	43	10.2
13 - 15	192	45.5
16 - 19	187	44.3
Religion		
Hindu	214	50.7
Muslim	171	40.5
Others	37	8.8
Socio-economic status		
Upper	5	1.2
Upper middle	33	7.8
Middle	89	21.1
Lower middle	127	30.1
Lower	168	39.8
Residence		
Rural	315	74.6
Urban	107	25.4
Toilet facility		
In- house	197	46.7
Open space outside	225	53.3

Household water supply		
Piped supply at home	132	31.3
Water stored	193	45.7
No supply	97	23.0

On observing the menstrual parameters, it was observed that out of total 422 subjects, it was computed that majority (67.1%) cases had menstrual cycle for an average of 3-5 days duration, however, 73.2% complained of irregular menses wherein 37.1% had oligomenorrhic cycles against 36.1% with polymenorrhea. Majority girls complained of abdominal pain during menses (49.1%) followed by weakness among 30.6% study population while only 6.4% and 4.0% cases complained of vomiting and itching around genital area respectively.

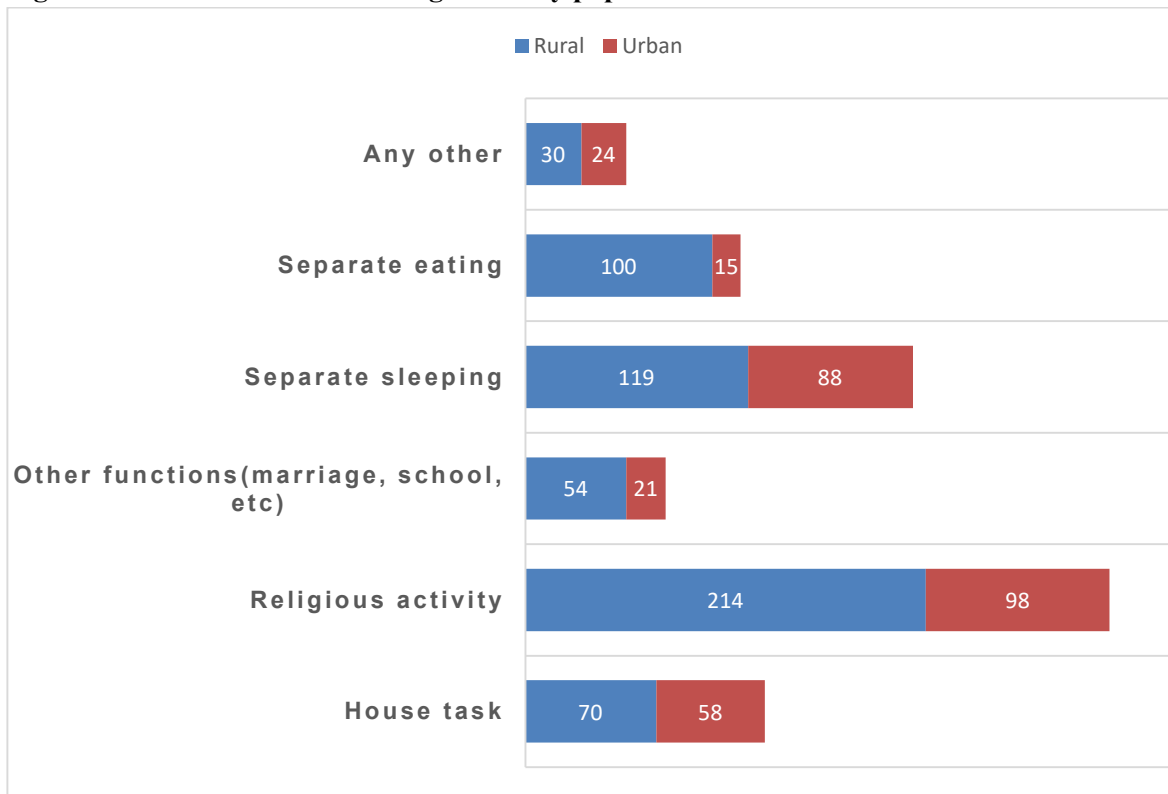
Table 2: Distribution of study population based on menstrual parameters

Menstrual parameters	No. of Subjects (n=422)	Percentage (%)
Duration of Menstrual cycle (days)		
< 3	31	7.3
3 - 5	283	67.1
>5	108	25.6
Menstrual regularity		
Regular	113	26.8
Irregular	309	73.2
Menstrual symptoms		
Vomiting	27	6.4
Nausea	45	10.7
Excess bleeding	105	24.9
Headache	91	21.6
Weakness	129	30.6
Pain abdomen	207	49.1
Breast pain	57	13.5
Itching around genital	17	4.0
Work restrictions		
House task	128	30.3
Religious activity	312	73.9
Other functions (marriage, school, play)	75	17.8
Separate sleeping	207	49.1

Separate eating	115	27.3
Any other	54	12.8

Concerning the work restrictions during menses, 73.9% had restrictions in religious activities during the periods, 49.1% slept separately from other family members, only 12.8% had restriction in entering kitchen and other activities. Figure 1 depicts graphical representation of work restrictions among the study population based on their residence where it was concluded that restrictions are more common in rural population compared to urban areas and this was statistically significant with p value of 0.00139.

Figure 1: Work restrictions among the study population based on residence



While assessing the awareness of study participants about knowledge and practices in menstrual cycle and hygiene, it was found that 41.7% were aware about cleaning perineum while changing pads while only 22.9% were aware of cleaning perineum after urination. The practice of using proper sanitary products was confined to only 12.6% study population probably because cost constraints was major problem with 70.4% girls for using sanitary pads.

Table 3: Awareness of study participants about menstrual cycle and hygiene

Awareness questions about menstrual cycle and menstrual hygiene	No. of Subjects (n=422)	Percentage (%)
Aware of cleaning perineum while changing pads	176	41.7
Type of napkin to be used	107	25.4
Aware of sanitary napkin before menarche	35	8.3
Aware of cleaning perineum after urination	97	22.9
Normal monthly duration of menstruation	309	73.2
Menstrual blood being considered impure	129	30.6
Proper sanitary products	53	12.6
Cause of menstruation	22	5.2
Origin of menstrual blood	12	2.8
Age of normal cessation of menses	127	30.1
Hot or cold food affecting menstrual cycle	85	20.1
Menstruation as indicating fertility	78	18.5
Whether cost constraints are present for using sanitary pads	297	70.4
Use of sanitary pads by other female members in the family	176	41.7

In our study population, the knowledge of menstruation as indicating fertility was confined to only 18.5% participants and only 5.2% knew about the cause of menstruation among which 67.1% considered menstruation as a natural biological female body process while 2.9% considered it due to God curse. However, majority i.e. 73.2% were aware about the normal monthly duration of menses and 30.1% were aware about the age of normal cessation of menses.

In this study it was also found that only 22.8% study participants used sanitary pads and majority of them (79.5%) belonged to urban area against 49.5% who used old clothes among which majority (67.9%) belonged to rural area wherein 71.1% dried the cloth inside house for reuse after washing.

Table 4: Awareness about menstrual practices among study participants

Awareness about menstrual hygiene practices	No. of Subjects (n=422)	Percentage (%)
What material you use during menstruation		
a) Sanitary pad	96	22.8
b) New cloth	117	27.7
c) Old cloth	209	49.5
Cleaning of external genitalia		
a) Daily	310	73.5
b) Only menses	112	26.5
How you clean external genitalia		
a) Only water	269	63.7
b) Soap and water	112	26.5
c) Antiseptic	41	9.8
Method of disposal		
a) Burn	304	72.0
b) Throw in waste	118	28.0
Places of drying cloth if re-used after washing		
a) Inside house	300	71.1
b) Outside in sunlight	122	28.9

Discussion:

The current study has been designed to understand the level of knowledge, attitude, and practice of menstrual hygiene among adolescent girls. While reviewing the literature, it was observed that our findings were comparable to study conducted by Khananna et al. wherein maximum girls were from Hindu community (70%) and hailed from joint families (56%), on the contrary, 83.1% from nuclear families have been reported by Mathiyalagen et al.^{5,6}

The mean age of study population in our study was 15.54 ± 3.77 years, similar to observation from Belayneh et al. where the mean age of respondents was 16.3 ± 4.7 years.⁷ Regarding the residence, the majority of participates 74.6% were from rural areas while 98.31% and 40.2% resided in rural areas in study by Gupta et al and Paul et al respectively.^{8,9}

Similar to the findings of our study, around 54.43% and 49.78% of females were sleeping separately and restricted for the religious task in the findings reported by Gupta et al.⁸ Also, Mathiyalage et al. reported 58.7% females were asked to sleep separately followed by restricting religious activities (44.6%).⁶

In contrast to our study where 73.2% were aware about the normal monthly duration of menses, only 36.6% of girls have knowledge about the normal duration of menstrual flow as reported by Sangra et al.¹⁰ and also majority (77.7%) adolescent girls experienced dysmenorrhea and 59.7% had irregular menstrual cycles and these were similar to findings of our study. Also our findings were comparable to studies by Gupta et al. where the of cause for menstruation was unknown to 21.29% participates and 24.89% of them mentioned that hot/cold food affected the menstrual cycle while 83.54% of them considered menstruation was as impure blood.⁸ Around

36.28% of the participants in study by Gupta et al. mentioned about problems likely to arise due to unhygienic practice, but higher percentages 58% were reported by Paul et al. and this correlated to results of our study as well.^{8,9}

Gupta et al. reported 58 % girls were using soap and water for cleaning their genitals while in our study majority used water only.⁸ Kailasraj et al. tabulated 67.4% urban girls used sanitary napkins whereas among rural girls 50.5% used sanitary napkins.¹⁰ Dube et al. observed 80% of urban girls were used sanitary napkins while 65% of the rural girls use home-made disposable pads during menstruation, which were made up of old torn out clothes.¹² Patle et al. observed that 62.0% of urban girls and 43.40% of rural girls were using sanitary pads and in our study 49.5% girls used old clothes and majority among them belonged to rural areas.¹³

Shah et al. stated that due to no proper waste management systems or garbage collectors, 24.7% girls burnt their used pads at night and 48.3% used of soap and water to wash the reusable cloths/towels and drying them in the sun while in our study 71.1% dried inside the house.¹⁴

All these studies are highlighting the trends regarding hygiene practices, knowledge and awareness about menstruation according to their own institutional practices.

Conclusion:

Females in the adolescent age span, particularly in developing countries have limited awareness, perspective, and practice of menstruation hygiene particularly related to economic factors, social stigma, shame, and embarrassment pointing crucial need for educational programs. This study concludes that menstrual hygiene is a great challenge for young girls residing in rural areas. The health sector and school authorities should play a greater role in creating awareness about menstrual hygiene.

Limitations:

As this was a single centre study with a comparatively short sample size and restricted time duration, confined to gynaecology OPD of single centre, results of this study cannot be generalized. As menstrual hygiene is an important area of concern for females, extensive research is required.

Conflict of Interest: None

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