

Knowledge, Attitude and Practices Regarding Menstrual Hygiene Among Adolescent Girls and Young Adult Women in Ahmedabad City - A Community Based Cross Sectional Study

Ripal N Panchal¹, Shivangi V Rajput², Jaydeepkumar A Ghevariya³,
Mitesh K Patel⁴

^{1,2,3}Senior Resident, Community Medicine Department, B.J Medical College, Ahmedabad

⁴Associate Professor, Community Medicine Department, B.J Medical College, Ahmedabad

Corresponding Author: Mitesh K Patel

DOI: <https://doi.org/10.52403/ijhsr.20240837>

ABSTRACT

Background: The knowledge established about the physiology of menstruation and unhygienic practices at adolescent age of girls predispose them to life threatening reproductive tract infections, infertility and various menstruation related morbidity conditions. And the same knowledge and practice is usually followed by them throughout life and also passed on to the next generations.

Objective: To assess the knowledge, attitude and practices regarding menstrual cycle, its management, and menstrual hygiene.

Method: A cross-sectional study was done amongst 352 adolescent girls and young adult women in 10-24year age group from 5 field practice area of community medicine department of B.J medical college by simple random sampling technique.

Result: Regarding knowledge about menstruation, majority of study participant 333(94.60%) and 334 (99.88%) don't know source of menstrual bleeding and cause of menstrual bleeding respectively. More than half study group 333(94.60%) don't know consequences of bad hygienic practice during menstruation. From total 352 study participant, 266 (75.56%) used sanitary pad and 86 (24.44%) used cloth as an absorbent during menstruation.

Conclusion: The study result show that there is poor knowledge about menstruation and menstrual hygiene. Participant's attitude toward menstruation was relatively positive and consequently poor practice was expected.

Keywords: Menstrual hygiene practices, RTI (Reproductive tract infections)

INTRODUCTION

Adolescence in girls is a phase of transition from girlhood to womanhood and marks the onset of female puberty.^[1] This period of attaining reproductive maturity between the ages of 10-19 years is marked by a number

of physiological, behavioural, and psychological changes, the most notable being the onset of menstruation.^[2] Puberty and menstruation bring major physical and mental changes in a girl's life, they mark the beginning of procreation. Ignorance about

health and hygienic practices during menstruation leads to serious health issue ranging from genital tract infection and urinary tract infection to bad Odour.^[3]

Knowledge about menstrual hygiene is one of the most important aspects of health education among women and adolescent girls in society.^[3] Menstrual Health and Hygiene (MHH) is essential to the well-being and empowerment of women and adolescent girls. On any given day, more than 300 million women worldwide are menstruating. In total, an estimated 500 million lack access to menstrual products and adequate facilities for menstrual hygiene management (MHM). To effectively manage their menstruation, girls and women require access to water, sanitation and hygiene (WASH) facilities, affordable and appropriate menstrual hygiene materials, information on good practices, and a supportive environment where they can manage menstruation without embarrassment or stigma.^[4] Around 23 million girls in India drop out of school every year due to a lack of menstrual hygiene management (MHM) facilities, which include access to sanitary napkins, awareness of menstruation and access to clean toilets with running water and disposal facilities.^[5]

The Ministry of Health and Family Welfare has introduced a scheme for promotion of menstrual hygiene among adolescent girls in the age group of 10 to 19 years in rural areas with objectives are to increase awareness among adolescent girls on Menstrual Hygiene, increase access to and use of high-quality sanitary napkins to adolescent girls in rural areas and to ensure safe disposal of sanitary napkins in an environmentally friendly manner.^[6]

As per the study conducted in Gujarat 2021, the proportion of adolescent girls using safe, sanitary absorbents, increased from 69% to 90.5%. Their knowledge of the uterus as the origin of menstrual blood and hormonal changes as the cause for menstruation improved from 6.3% to 66% and 7.5% to 73%, respectively. School absenteeism during menstruation reduced from 24% to

14%. It is possible to improve MHM knowledge, attitude, and practices among adolescent girls from tribal communities by utilising existing government systems. Awareness and access to safe absorbents can lead to safe and hygienic MHM practices.^[7]

In a survey conducted by the World Bank (2018), it was found that at least 500 million women and girls have been deprived of proper access to menstrual hygiene facilities. In India only 1 in every 2 girls has knowledge about menstruation before their first period. Only 1 in every 2 girls are informed regarding menstruation from their mothers.^[3] There is a substantial lacuna in the knowledge about menstruation among adolescent girls. Several research studies have revealed this gap and they showed that there was a low level of awareness about menstruation among the girls when they first experienced it.^{[8][9]} Nowadays, there is some openness toward menstruation, but differences in attitude still persist between different populations depending upon the education, socioeconomic status and the surrounding.^[10] This study focuses on the awareness aspect as most of the adolescent girls lack knowledge about menstrual hygiene and health. So, with this background, the present study will be conducted with an objective to assess the knowledge, attitude and practices regarding menstrual cycle, its management, and menstrual hygiene.

MATERIALS & METHODS

Study design:

- **Study type:** A Community based Cross sectional study.
- **Study site:** Field practice area of community medicine department of B.J. Medical college, Ahmedabad city.
- **Study duration:** Data were collected from March 2021 to March 2022

Study population:

The present study will be conducted among age group of 10-24 years females residing in

the field practice area of community medicine department, B.J medical college, Ahmedabad city.

Study material:

A pre- designed, pre- tested, semi - structured questionnaire will be used for this study.

Data collection:

There are 5 field practice areas of community medicine department under B.J medical college: *Bhogilal ni juni chali, Paremeshwar park na Chhapra, Mali no Kuvo, Kalapinagar, Ranchhodpura*. As per the calculation sample size was 352 and so 70-75 sample taken from each field practice area. Study participants will be selected by Simple random sampling method. A pre- designed, pretested, semi structured questionnaire was used that elicited

information on demographic and socioeconomic background of individuals in addition to information related to the objectives. A pilot study was conducted in field practice area of B.J. medical college. The questionnaire was modified based on experience of the pre-test conducted before the main study.

The informed consent was taken from each participant before the interview started. In case the study participant was <18 years, consent was requested either from a parent or the guardian.

RESULT

The present study was conducted in 5 urban field practice area of B.J. Medical college of Ahmedabad city during March 2021 to March 2022, among 352 study participants.

Table:1 – Assessment of Knowledge About Menstruation among Study Participants (N=352)

Variables	Frequency	Percentage
Source of menstrual bleeding		
Don't know	333	94.60%
From Uterus	8	2.28%
From Vagina	9	2.56%
From Urinary Bladder	2	0.56%
Cause of menstrual bleeding		
Don't Know	334	94.88%
Hormonal	6	1.70%
Curse	9	2.56%
Disease	3	0.86%
Variables	Frequency	Percentage
Information of menstruation is given by		
Mother	328	93.19%
Teacher	2	0.56%
Sister	2	0.56%
Friend	19	5.40%
Relative	1	0.29%
Knowledge of reproduction system		
Know	19	5.40%
Don't know	333	94.60%
Knowledge of normal interval of menstrual cycle		
Know	352	100%
Don't Know	0	0%
Knowledge of normal duration of menstrual cycle		

Know	352	100%
Don't Know	0	0%
Knowledge regarding menstrual hygiene		
Yes	21	5.97%
No	331	94.03%
Knowledge regarding disease due to unhygienic menstrual practice		
Yes	19	5.40%
No	333	94.60%

Regarding knowledge about menstruation, majority of study participant 333(94.60%) and 334 (99.88%) don't know source of menstrual bleeding and cause of menstrual bleeding respectively. Mother 328(93.19%) was the main source of giving information regarding menstruation. Nearly 333 (94.60%) girls don't know about

reproductive system. On the other hand, all the adolescent girls and young adult women had knowledge of normal interval and normal duration of menstrual cycle. More than half study group 333(94.60%) don't know consequences of bad hygienic practice during menstruation.

Table:2 – Assessment of practices regarding menstruation among study participants

Variables	Frequency	Percentage
Main absorbent used during menses (N=352)		
Sanitary pad	266	75.56%
Napkin / cloth	86	24.44%
If clothes were using, how do they clean it? (N=86)		
With Water	8	9.31%
With soap and water	78	90.69%
If clothes were using, how do they dry it? (N=86)		
Inside the house	20	23.25%
In sunlight	58	67.45%
How many times do they change cloth / pad per day? (N=352)		
Once	72	20.45%
Two or more	280	79.55%
If sanitary pad were using, how do they dispose it? (N=266)		
Open field	10	3.75%
Routine waste	256	96.25%
Types of pad wraps used for disposing it (N=266)		
Plastic bag	89	33.46%
Paper	8	3%
No wrap	169	63.54%
Remedies used for pain during menses (N=352)		
Medication	19	5.40%
Take rest	333	94.60%
Cleaning of external genitalia with soap during menstruation		
Yes	307	87.22%
No	45	12.78%

From total 352 study participant, 266 (75.56%) used sanitary pad and 86 (24.44%) used cloth as an absorbent during menstruation. Among the 86-participant used cloth, 78 (90.69%) clean it with soap and water. While among 266 participant

used sanitary pad, 256 (96.25%) dispose it in a routine waste and 169 (63.54%) dispose it without any wrap. Only 19 (5.40%) study group used medication during menses. Majority 307 (87.22%) clean their external genitalia with soap and water.

Table:3 – Assessment of attitude regarding menstruation (N=352)

Variables	Frequency	Percentage
Women in menstruation are susceptible to get possessed by evil spirits		
Agree	11	3.12%
Neutral	9	2.56%
Disagree	332	94.21%
Drinking tea will increase the blood flow		
Agree	11	3.12%
Neutral	9	2.56%
Disagree	332	94.32%
Changing often/staying clean will increase the blood flow		
Agree	13	3.70%
Neutral	12	3.40%
Disagree	327	92.90%
I am more easily upset during premenstrual and menstrual period then other time of the month		
Agree	17	4.82%
Neutral	87	24.73%
Disagree	248	70.45%
Menstruation is something that I just have to put up (tolerate) with		
Agree	18	5.12%
Neutral	71	20.17%
Disagree	263	74.72%
Continue.....		
Variables	Frequency	Percentage
The only thing good with menstruation is that I come to know that I am not pregnant		
Agree	190	53.98%
Neutral	119	33.80%
Disagree	43	12.22%
Menstruation allows women to be more aware of their body		
Agree	2	0.56%
Neutral	159	45.18%
Disagree	191	54.26%
The period is dirty and annoying		
Agree	17	4.82%
Neutral	81	23.02%
Disagree	254	72.16%
We women wish that the period would last for a few minutes		
Agree	16	4.54%
Neutral	92	26.14%
Disagree	244	69.32%
Women wish that we do not have our period		
Agree	14	3.98%
Neutral	79	22.45%
Disagree	259	73.57%
It is uncomfortable for us women to talk about our period		
Agree	3	0.86%
Neutral	117	33.24%
Disagree	232	65.90%

This table shows positive attitude of study participant towards various determinants of menstruation.

Table:4-Awarenes regarding phase of menstruation in their life(N=352)

Know phase of menstruation	Age of menarche (Year)	
	≤14 (%)	>14 (%)
Before Menarche	159(51)	12(30)
After Menarche	153(49)	28 (70)
Total	312	40
$\chi^2=6.236, p=0.012$		

There is significant greater level of awareness regarding phase of menstruation among the adolescent girls aged 14 years or less. ($\chi^2=6.236$ at $p=0.012$)

Table:5-Knowledge of side effects due to unhygienic Menstrual Practice in various age groups of adolescents (N=352)

Knowledge	Age of study population (year)												Total
	13	14	15	16	17	18	19	20	21	22	23	24	
Present	2	3	5	3	2	8	3	5	3	4	5	4	47
Absent	5	11	17	14	21	21	38	20	48	39	27	44	305
$\chi^2 =7.327, p \text{ value} =0.0067$													

As per the above table there was significant association found between various age of study population and their knowledge of side effect due to unhygienic menstrual practice. ($\chi^2 =7.327$ at $p=0.0067$). For the statistical calculation age group of ≤18 and >18 was taken.

DISCUSSION

Menstrual hygiene is a taboo, a topic that most women in India are uncomfortable discussing in public. This is compounded by gender inequality, which excludes women and girls from decision making process. lack of proper knowledge and affects safe practice of menstrual hygiene in adolescent girls and pose them to the risk of anxiety, reproductive infections as well as pregnancy related issues. This study was planned to assess the knowledge regarding physiology of menstruation, attitude toward various determinant of menstruation and safe menstrual hygiene practices among adolescent girls and young adult women in Ahmedabad district.

The present study was conducted with Hindu (94.31%), Muslim (4.26%) and 1.42% from other religions. Study done in Nepal had 94.6% Hindu girls whereas study done by Suhasini, there was 69.3% Hindu and 30.1% Muslim girl.^[11]

Majority of the study population were from socioeconomic class III (81.81%), which is much higher than study done in Belgaum (peer review pdf). Only 2.84% study participant were from class II. A study done by Balat ^[12];in Ahmedabad had more than 85% study participant from class III.

Mothers of adolescent girls were majority illiterate (67%) and 33% were educated up till primary and above. To the contrast, study from Belgaum by Pokhre shows mother literacy status with (40.3%) having only primary education followed by (26.4%) secondary education and 21.5% were illiterate.^[13]

It was observed in our study that most common problem faced with cloth as an absorbent were itching (65.11%) followed by rashes (16.27%) and itching was major complain while using sanitary napkin as an

absorbent. In study conducted by Mitra et al in Rajkot, similar findings were observed.^[15]

The hygiene related practices of women during menstruation are of considerable importance, as they affect their health by increasing their vulnerability to infections, especially infection of the urinary tract and the perineum. The type of absorbent material which is used is of primary concern, since reuse of the material could be a cause for infection if it is improperly cleaned.^[17] Washing and drying thought to be done secretly or in a hidden corner so that it cannot be seen by others.^[16] Among total respondents who used cloth as an absorbent, correct practice of washing the cloth was followed by 90.6% adolescent girls and young adult women.

Majority of study participant 91.76% had restriction to visit religious place. Similar finding was seen in study of Ambala, Haryana showing 80.3% of girls were restricted to visit temples or participate in religious ceremonies, and 8.23% girls were not allowed entry in the kitchen.^[14]

Menstruation has always been surrounded by different perceptions throughout the world. Nowadays, there is some openness toward menstruation, but differences in attitude still persist. In many parts of the world, menstruation is still related to a number of cultural taboos as well as feelings of shame and uncleanness. Even today menstruation is a secret of mother and daughter in many families. It is not discussed in the open. In present study Around half of the respondents had positive attitude towards menstrual hygiene management related issues.

The study is conducted in the selected region; therefore, generalizing must be done with care. The findings may not be representative the menstrual characteristics in whole Gujarat. Moreover, the study and the results are related to an urban area, so it might not be a good representative for rural areas.

CONCLUSION

In conclusion although participant's attitude toward menstruation was relatively positive, they most had poor knowledge about menstruation and menstrual hygiene and consequently poor practice was expected.

This study has highlighted the need of adolescent girls to have accurate and adequate information about menstruation and its appropriate management. Formal as well as informal channels of communication such as mothers, sisters and friends need to be emphasized for the delivery of such information. In view of the vital role of the mothers, it is very important that the mother be armed with the correct and appropriate information on reproductive health, so that she can give this knowledge to her growing girl child. Mothers should encourage their daughters to maintain personal hygiene. The study concluded that strengthening of Menstrual hygiene management programs is needed. Education on awareness, access to hygienic absorbents and disposal of items need to be addressed.

Declaration by Authors

Ethical Approval: Approved

Acknowledgement: None

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

REFERENCES

1. (PDF) Awareness regarding pubertal changes and reproductive health in school going adolescent girls of a border area of Darjeeling district - A cross sectional study n.d. (accessed January 12, 2023).
2. Khanna A, Goyal RS, Bhawsar R. Menstrual Practices and Reproductive Problems: A Study of Adolescent Girls in Rajasthan n.d. <https://doi.org/10.1177/097206340400700103>.
3. (PDF) Empirical Analysis on Knowledge, Attitudes and Practices (KAP): Puberty and Menstrual Hygiene n.d. (accessed January 13, 2023).
4. Menstrual Health and Hygiene (accessed July 20, 2022).

5. World Menstrual Hygiene Day 2022: Theme, History, Significance and Quotes n.d.
<https://www.news18.com/news/lifestyle/world-menstrual-hygiene-day-2022-all-you-need-to-know-and-quotes-5254093.html> (accessed July 21, 2022).
6. Menstrual hygiene in South Asia A neglected issue for WASH (water, sanitation and hygiene) programmes Report n.d.
7. Vayeda M, Ghanghar V, Desai S, Shah P, Modi D, Dave K, et al. Improving menstrual hygiene management among adolescent girls in tribal areas of Gujarat: an evaluation of an implementation model integrating the government service delivery system. *Sex Reprod Health Matters* 2021;29. <https://doi.org/10.1080/26410397.2021.1992199>.
8. Agarwal N, Soni N, Singh SP, Soni GP. Knowledge and practice regarding menstrual hygiene among adolescent girls of rural field practice area of RIMS, Raipur (C. G.), India. *Int J Reprod Contracept Obstet Gynecol* 2018; 7:2317–21. <https://doi.org/10.18203/2320-1770.IJRCOG20182342>.
9. Khanna A, Goyal RS, Bhawsar R. Menstrual Practices and Reproductive Problems: A Study of Adolescent Girls in Rajasthan n.d. <https://doi.org/10.1177/097206340400700103>.
10. Fehintola G. Assessment of knowledge, attitude and practice about menstruation and menstrual hygiene among secondary high school girls in Ogbomoso, Oyo state, Nigeria. *Int J Reprod Contracept Obstet Gynecol*
11. Suhasini K, Chandra M. Peer Reviewed. *International Journal Focusing Exclusively on Community Medicine and Public Health* n.d.;4.
12. Balat MS, Sahu SK, Patel M. Assessment of knowledge and practice of menstrual hygiene management among adolescent school girls in Ahmedabad city. *National Journal of Community Medicine* 2019;10:30–5.
13. Pokhrel S. Impact of Health Education on Knowledge, Attitude and Practice Regarding Menstrual Hygiene among PreUniversity Female Students of a College Located in Urban Area of Belgaum n.d.;3:38–44.
14. Gokhale D. Factors Influencing Age at Menarche: An Indian Scenario. *Indian Journal of Youth and Adolescent Health* 2015.
15. Mitra A, Mahajan RG, Rangoonwala M, Kadri AM, Amin C, Gajera K. Awareness and practices on menstrual hygiene amongst adolescent girls in Rajkot district of Gujarat. *Healthline, Journal of Indian Association of Preventive and Social Medicine* 2015;6:61–7.
16. Dhingra R, Kumar A, Kour M. Knowledge and Practices Related to Menstruation among Tribal (Gujjar) Adolescent Girls. *Kamla Raj Enterprises*
17. Thakre SB, Thakre SS, Reddy M, Rathi N, Pathak K, Ughade S. Menstrual Hygiene: Knowledge and Practice among Adolescent School Girls of Saoner, Nagpur District. *J Clin of Diagn Res.*2011; 5(5):1027-1033.

How to cite this article: Ripal N Panchal, Shivangi V Rajput, Jaydeepkumar A Ghevariya, Mitesh K Patel. Knowledge, attitude and practices regarding menstrual hygiene among adolescent girls and young adult women in Ahmedabad city - A community based cross sectional study. *Int J Health Sci Res.* 2024; 14(8):322-329. DOI: [10.52403/ijhsr.20240837](https://doi.org/10.52403/ijhsr.20240837)
