

Knowledge, attitude, and practices of adolescent school girls regarding menstrual hygiene in Lucknow district



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ABSTRACT

Background: Girls' adolescence has been recognized as a unique period that occurs as they cross the threshold from childhood to adulthood. Menstruation is typically viewed in Indian society as unclean. A negative attitude about this condition has been perpetuated by efforts to isolate and restrict menstruation females in the household. Numerous investigations have discovered restrictions in daily activities. On the other hand, maintaining good cleanliness habits during menstruation is important for reproductive health since it reduces vulnerability to infections of the reproductive tract. **Aims and Objectives:** The aim of the study was to assess knowledge and attitude about menstrual health among adolescent girls in rural and urban schools in Lucknow district and to find out practices of menstrual hygiene among them. **Materials and Methods:** The study unit consists of 410 teenage school-going females who live in both urban and rural regions of the Lucknow district. There was a multi-stage random sampling. A pre-developed and pre-tested interview schedule was employed to obtain data. Participants were questioned about their personal cleanliness, which need to be covered in the academic program. **Results:** Four hundred and ten adolescent girls who were enrolled in school participated in the study. The majority of girls in this survey (52.8%) are between the ages of 17 and 19. 87.6% of the girls reported being ignorant of menstruation before menarche. While 41.6% of the girls were unaware of the organ from which bleeding originates, around 68.2% of the girls believed that the primary reason of menstruation is physiological and unrelated to any sickness. At the age of 10–13 years, 42.60% of the girls reached menarche. The majority of participants (60.80%) gave accurate responses to the question about the typical menstrual cycle's average length. Only 35.27% of the girls were aware of the proper menarche age. Of them, 65.50% were aware of the issues with their reproductive health. **Conclusion:** Lack of education among mothers and other female family members may contribute to girls' lack of knowledge and awareness of menstruation. Misinformation, pre-conceptions, limitations, and a lack of knowledge around menstruation come in many different forms. As a result, when the entire family is familiar with the phenomena of menstruation, age-old prohibitions, conventional preconceptions, incorrect ideas, and negative attitudes may be successfully erased.

Key words: Menarche; Menstruation; Menstrual hygiene; Practices; Adolescent girls

INTRODUCTION

Adolescence is defined by the World Health Organization as the time between the ages of 10 and 19, and teenage

girls make up about one-fifth of all females worldwide.¹ There are restrictions in daily activities, according to several research. In addition, they follow particular taboos during menstruation and menarche.²

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Menstrual hygiene is a problem that does not have enough attention or acknowledgement. Good hygiene habits are crucial during menstruation, including washing the genital areas thoroughly and using sanitary pads.

Women and girls of reproductive age need sanitary products that are hygienic, gentle, and protective of their health in the long-term from numerous illnesses.³

Women who are highly conscious about safe menstruation practices and menstrual hygiene are less prone to genital infections and the consequences that follow.⁴

From puberty until menopause, mature females who experience menstruation lose blood for 1–7 days each month.⁵

Menstruation and the problems associated with it are taboo subjects in many developing countries. Many young girls therefore lack adequate and essential understanding regarding menstrual hygiene.⁶

There is a substantial knowledge gap regarding menstruation among teenage girls. Numerous studies have highlighted this gap, showing that when women first started menstruating, they knew very little about it. Several studies have shown that most adolescent females have incomplete and incorrect knowledge of the physiology and hygiene of menstruation.⁷

Aims and objectives

The objectives of the study are as follows:

1. To assess knowledge and attitude about menstrual health among adolescent girls in rural and urban schools in Lucknow district
2. To find out practices of menstrual hygiene among them.

Research question

Knowledge, Attitude, and Practices of Adolescent school girls regarding menstrual hygiene in Lucknow district?

MATERIALS AND METHODS

A cross-sectional study was conducted between January 2015 and June 2016 among females aged 10–19 who were enrolled in school in rural and urban schools in the Lucknow district.

Study tools

The study applied a pre-designed, pre-tested, and structured questionnaire. Personal interviews with the study subject served as the method of data gathering. SPSS-20.0 version software will be used to tabulate and analyze the data. To evaluate and validate the study's conclusions, an appropriate estimating approach is used.

Sample size

The sample size was 410 adolescent girls. Sample size calculated as formulae:

$$4PQ/L^2$$

As per the prevalence for menstrual hygiene practices is 50.8% in study done at IMS, BHU, Varanasi, Uttar Pradesh.⁸

After obtaining authorization from the school administration, the class teachers presented the study's purpose. The female students provided their verbal approval. They were informed of the study's objectives and the type of data that the study subjects were required to provide. The questionnaire covered questions about menstruation awareness, menstrual information sources, hygiene habits during period, and activities that women should not engage in.

The demographic information including family details, parent's education, and occupation was enquired. Age at menarche and chronological age was both defined. There were issues about menstruation hygiene, such as the type of absorbent used, where to store it, whether to use clean or dirty napkins, and how frequently to change and clean them. In addition, details about personal hygiene were provided, such as when to wash and bathe while menstruating, etc.

Methods of selection

The following steps were taken to reach the required sample size using the simple random sampling technique:

Initially, the district of Lucknow was divided into urban and rural sections. Thereafter, the Lucknow urban area was split into six zones. Four of those six zones were chosen at random.

At the second stage, a student was chosen at random from each senior high school in Zone 1. Similar to this, Lucknow's area was divided into eight blocks. Two blocks were chosen at random from a total of eight blocks. One senior secondary school was chosen at random from each block in the following stage.

Students from Classes VI–XII in the age range of 10–19 years were chosen for the third stage in a particular school. The study subjects were chosen using the simple random selection technique. Two hundred and eighty-seven adolescent girls were picked from four urban schools that were randomly selected using this multistage random sample technique. Similar to this, two schools were chosen at random in a rural location. One hundred and twenty-three adolescent girls were selected from that group.

RESULTS

Four hundred and ten school-going adolescent girls participated in the study. The class teachers were informed of the study's goal after obtaining authorization from the school administration. The female participants provided their verbal approval. In this study, the majority of the female participants were aged 17–19 (52.8%). The majority of girls, 64.2%, are from the Hindu community, followed by girls from the Muslim community (30.2%) and other communities (5.8%) (Table 1).

In the Table 2, the majority of the participants 87.6% were unaware of the fact about menstruation before menarche. About 68.2% of the girls considered, the major cause of menstruation is physiological and not related with any disease while 41.6% were unaware about the organ from where bleeding occurs. About 42.60% of the girls attained menarche at the age of 10–13 years. Majority of the participants (60.80%) answered correctly about the average length of normal menstrual cycle. Only 35.27% of the girls knew the correct age of menarche. The majority of them (65.50%) were aware of the issues with their reproductive systems, and their mothers (42.4%) and teachers (12.80%) were identified to be the main sources of information on menstruation for them.

In Table 3, the girls' reactions to menarche varied; 40.2% of the girls felt depressed, followed by 33.60% of the girls who felt scared, and 21.4% of the girls thought that it was sinful. The onset of menstruation was anticipated and predicted by 58.4% of the girls. Menstruation was regarded a bothersome event by 82% of the girls. About 87.40% of people knew how important cleaning and hygiene were, while 62.60% experienced restrictions throughout their period.

In Table 4, out of 410 total girls in the study, 211 (51.40%) of girls use old cloth as protective material and 199 girls (48.60%) use sanitary pads. About 37.60% of the girls change their sanitary pads/cloths 5 times a day while 61.50% of them use dustbin as their method of disposal. Majority of them, that is, 81.60% practice bathing as their everyday habit during menses.

DISCUSSION

This study reveals that menstruating girls ranged in age from 10 to 19 years, with the majority of girls, 52.8%, being in the late adolescent (17–19 years) age group.⁹ This finding is consistent with a study from Kolkata, where 57% of girls belonged to this age group, and another study by Jain et al.,¹⁰ where 67.55% of girls were between 14 and 16 years.¹⁰

Table 1: Distribution of sociodemographic characteristics among the girls

Characteristics	No. of girls n=410	Percentage
Age in years		
10–13	71	17.2
14–16	123	30.0
17–19	216	52.8
Religion		
Hindu	263	64.2
Muslim	123	30.2
Others	24	5.8
Marital status		
Unmarried	396	96.7
Married	14	3.3
Family		
Joint	182	44.5
Nuclear	228	55.5
Mother's education		
Illiterate	45	11
Primary	76	18.6
Junior high school	124	30.2
High school	62	15.2
Intermediate	58	14.2
Graduate	44	10.8
Mother's occupation		
Working	108	26.4
Housewife	302	73.6
Kuppuswamy classification		
Class I	0	0
Class II	52	12.8
Class III	260	63.4
Class IV	98	23.8

In our study, 64.2% of the girls identified as Hindu, compared to 90.2% of females in an Omidvar and Begum study.¹¹ In the present study, the majority of females have reached menarche between 10 and 13 years. Similar findings were reported by Jogdand and Yurpude¹² and Narayana et al.,¹³ In 2–5 days, 60.8% of girls have blood flow. According to Balasubramanian,¹⁴ 84% of girls had a 2–5 day menstrual blood flow. Because of their mother's and the girls' low levels of education, 87.6% of girls did not know that they started having periods before menarche. While the majority of girls (68.2%) were aware that menstruation is a physiological process, 41.6% were unaware of the organ from which the bleeding originates. In this study, mothers were cited as the primary source of information by 42.4% of the girls. Teachers, friends, and family members were additional information sources. The key finding of this study is that neither teachers nor other educational professionals were thought to be reliable sources of information about these topics.

According to the study, 21.4% of the girls thought it was sinful, and 40.2% of the girls felt depressed, scared, or both. Researchers Kamath et al., Shanbhag et al., and Tiwari et al., discovered a higher negative reaction.^{15–17} Fear and anxiety may be related to misinformation, false facts, and low levels of education, especially among mothers.

Table 2: Knowledge regarding menstruation and menstrual hygiene among the girls

Knowledge regarding menstruation and menstrual hygiene	No. of girls n=410	Percentage	95% CIL	95% CIU
Knowledge of menstruation before menarche				
Yes	51	12.40	9.21	15.59
No	359	87.60	84.41	90.79
Knowledge regarding cause of menstruation				
Physiological	280	68.20	63.69	72.71
Abnormal	49	12.00	8.85	15.15
Curse	76	18.60	14.83	22.37
Others	5	1.20	0.15	2.25
Knowledge regarding organ from where bleeding occurs				
Uterus	64	15.80	12.27	19.33
Urinary tract	50	12.20	9.03	15.37
Vagina	125	30.40	25.95	34.85
Don't know	171	41.60	36.83	46.37
Knowledge about average length of normal menstrual cycle				
<2 days	52	12.70	9.48	15.92
2–5 days	249	60.80	56.07	65.53
>5 days	100	24.50	20.34	28.66
Don't know	9	2.00	0.64	3.36
Knowledge about average age of menarche (in years)				
<12 years	166	40.60	35.85	45.35
12–14 years	126	30.80	26.33	35.27
14–16 years	89	21.80	17.80	25.80
>16 years	29	6.80	4.36	9.24
Age at menarche				
10–13 years	175	42.60	37.81	47.39
14–16 years	163	39.80	35.06	44.54
>16 years	72	17.60	13.91	21.29
Awareness about reproductive health problems				
Yes	269	65.50	60.90	70.10
No	141	34.50	29.90	39.10
Source of information about menstruation				
Mother	174	42.40	37.62	47.18
Teacher	52	12.80	9.57	16.03
Friends	75	18.20	14.47	21.93
Grandmother	12	3.00	1.35	4.65
Elder sister	91	22.10	18.08	26.12
Others	6	1.50	0.32	2.68

Table 3: Attitude regarding menstruation and menstrual hygiene among the girls

Attitude regarding menstruation and menstrual hygiene	No. of girls n=410	Percentage	95% CIL	95% CIU
Reaction toward first menses				
Happy	20	4.80	2.73	6.87
Scared	138	33.60	29.03	38.17
Depressed	165	40.20	35.45	44.95
Sin	87	21.40	17.43	25.37
Is menstruation a bothersome event				
Yes	336	82	78.28	85.72
No	74	18	14.28	21.72
Anticipation and prediction of menstruation onset				
Yes	239	58.40	53.63	63.17
No	171	41.60	36.83	46.37
Importance of cleanliness during menstruation				
Yes	358	87.40	84.19	90.61
No	52	12.60	9.39	15.81
Restriction during menses				
Yes	257	62.60	57.92	67.28
No	153	37.40	32.72	42.08

In this study, 199 girls (48.60%) and 211 girls (51.40%) utilize sanitary napkins as protective materials, respectively. According to a study by Dasgupta and Sarkar,¹⁸ in a

rural area, most girls preferred cloth over sanitary pads as menstrual absorbents. Only 11.25% of girls use pads when they were menstruating. Three-fourths of the girls

Table 4: Practice regarding menstruation and menstrual hygiene among the girls

Practice regarding menstruation and menstrual hygiene	No. of girls n=410	Percentage	95% CIL	95% CIU
Practice regarding protective material to be used during menstruation				
Old cloth	211	51.40	46.56	56.24
Sanitary pads	199	48.60	43.76	53.44
Practice regarding time interval of changing sanitary pad/cloth				
Twice a day	85	20.80	16.87	24.73
Thrice a day	96	23.40	19.30	27.50
4 times a day	75	18.20	14.47	21.93
5 times a day	154	37.60	32.91	42.29
Practice regarding methods of disposal of used sanitary pad				
Throw in dustbin	252	61.50	56.79	66.21
Wash	33	8.10	5.46	10.74
Throw outside	125	30.40	25.95	34.85
Practice regarding bathing during menses				
Every day	335	81.60	77.85	85.35
Alternate day	75	18.40	14.65	22.15
Practice regarding washing of hands during menses				
Regular	285	69.40	64.94	73.86
Irregular	125	30.60	26.14	35.06
Water	294	71.80	67.44	76.16
Soap and water	116	28.20	23.84	32.56

in a research by Khanna et al.,¹⁹ reported using old fabric for their periods, whereas only one-fifth said they used ready-made sanitary pads.

The establishment of health education is necessary to give young women the information they need to make wise health decisions. Teaching young girls the regular hygiene practices of taking a warm water bath in the first few days of their period, regularly washing their hands, and regularly cleaning their external genitalia results in the development of positive mental and social behaviors and can also aid in reducing hygiene issues in the community.

Implications

Many researches have been conducted in India to learn about teenage girls' knowledge and practices related menstrual hygiene, but there are very few studies in our area that may display the picture of knowledge, attitude, and behaviors among adolescent girls in our state.

There is a need to be aware of the relevant statistical facts, to comprehend them, and to find a means to enhance their understanding and sanitary habits-related menstruation.

Simply improving menstrual hygiene routines can reduce the prevalence of reproductive tract infections, pelvic inflammatory disorders, and other related problems.

Limitations of the study

Participant of only Lucknow District were enrolled in this study.

CONCLUSION

This study aimed to identify the behaviors and knowledge of teenage girls. According to the study, teenage girls' menstrual hygiene was satisfactory. Girls' lack of knowledge and awareness of menstruation may be a result of both themselves and their mothers' lack of education. Reproductive health and hygiene instruction should be given by anganawadi staff members, and it should be included in the academic program. Misinformation, preconceptions, limitations, and a lack of knowledge around menstruation come in many different forms. It is essential to increase awareness of the requirement for good menstrual hygiene knowledge. To effectively convey important information about correct menstrual hygiene practices to today's adolescent girls, it may be helpful for educational television programs, trained school nurses and health professionals, driven school administrators, and informed parents to work together. Because of this, it may be possible to successfully eliminate long-held taboos, conventional notions, false beliefs, and unfavorable attitudes when the entire family is aware of the menstrual phenomenon.

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RK- Concept and design of the study, interpreted the results, prepared first draft of manuscript, and critical revision of the manuscript; **SzA**- Statistically analyzed and interpreted, reviewed the literature, and manuscript preparation; **SA**- Design of the study, statistically analyzed, and interpreted; **BS**- Preparation of manuscript and revision of the manuscript; **ZHZ**- Concept and coordination of the overall study; and **SqA**- Review of literature, Proof reading, and revision of manuscript.

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