

DOI: <http://dx.doi.org/10.18203/2320-1770.ijrcog20182342>

## Original Research Article

# Knowledge and practice regarding menstrual hygiene among adolescent girls of rural field practice area of RIMS, Raipur (C. G.), India

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**Received:** 26 March 2018

**Accepted:** 01 May 2018

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### ABSTRACT

**Background:** Adolescent age group among girls have been recognized as a special period which signifies the transition from girlhood to womanhood. Menstruation is generally considered as unclean in the Indian society. Most of the adolescent girls had incomplete and inaccurate information about the menstrual physiology and hygiene as reported by many Indian studies. Very few authors have included the detailed aspects of the menstrual practices among adolescent girls.

**Methods:** The current Community based cross sectional study was conducted by department of obstetrics and Gynaecology in connection with department of community medicine, Raipur Institute of Medical Science, Raipur (C.G), India. Among the adolescent school going girls in the field practice area of the Rural Health Unit and Training Centre during study period of 6 months from July 2017 to December 2017. 263 girls from the above mentioned schools, of the 8th and 9th standards, were selected for the study.

**Results:** Majority of the school going adolescent girls belong to 13 and 14 years of age. 50.95%, 21.67% and 12.93% girls reported that they had their menarche at the age of 13 year, 12 year and 14 year respectively. Majority of the girls were using cloth (49.81%) and only 17.87% were using sanitary napkins. Cleaning of external genitalia was not satisfactory in 32.70% of the girls. Only 58.17% girls used both soap and water for cleaning the genitalia. Pain in abdomen (59.70%) was found to be the most frequent complaint during menstruation.

**Conclusions:** Knowledge on menstruation is sub-optimal and the practices are unacceptable for proper hygiene among study subjects. Menstrual hygiene is an important issue needs to be ensured.

**Keywords:** Adolescent girls, Menstrual hygiene, Knowledge, Practices

### INTRODUCTION

Adolescent age group among girls have been recognized as a special period which signifies the transition from girlhood to womanhood. Menstruation is generally considered as unclean in the Indian society.

Prevalent taboos like isolation of the menstruating girls and restrictions being imposed on them have negative impact over adolescent regarding menstruation and menstrual hygiene can result in preventable reproductive

tract infection and infertility.<sup>1</sup> Several studies have reported restrictions during the daily activities. Apart from these, they believe in specified taboos at menarche and menstruation.<sup>2</sup>

There is a gap in the knowledge about menstruation among adolescent girls. Many studies have reported this gap and they showed that there was a low level of awareness about menstruation among the girls when they first experienced it.<sup>3-5</sup> Social prohibitions and the negative attitude of parents in discussing the related

issues openly, have blocked the access of adolescent girls to the appropriate information.<sup>6</sup> Many studies conducted in India showed significant association between infection and menstrual hygiene status.<sup>6-9</sup>

Most of the adolescent girls had incomplete and inaccurate information about the menstrual physiology and hygiene as reported by many Indian studies. It also revealed that mothers, television, friends, teachers and relatives were the main sources which provided information on menstruation to the adolescent girls.<sup>6,10,11</sup> Good hygienic practices such as the use of sanitary pads and adequate washing of the genital area are essential during menstruation.

Women and girls of the reproductive age need access to clean and soft, absorbent sanitary products which can in the long run, protect their health.<sup>2,12</sup> However, the attention on this issue is insufficient.<sup>13</sup> A key priority for women and girls is to have the appropriate knowledge, facilities and the environment to manage menstruation hygienically and with dignity.

Very few authors have included the detailed aspects of the menstrual practices among adolescent girls. It was therefore considered as relevant to investigate the menstruation related knowledge and practices among the school going adolescent girls.

### Objectives

Objectives of present study were to assess the knowledge and the practices of menstrual hygiene among school going adolescent girls and to assess the restrictions which were practised by adolescent school girls during menstruation.

### METHODS

The current community based cross sectional study was conducted by department of obstetrics and Gynaecology in connection with department of community medicine, Raipur Institute of Medical Science, Raipur (C.G), India. Among the adolescent school going girls in the field practice area of the Rural Health Unit and Training Centre during study period of 6 month from July 2017 to December 2017.

However, the students from rural areas also attended the schools which were included in this study setting. In this study area, there was only a single government school. Hence, this School was purposively selected for the study.

### Study population

263 girls from the above mentioned schools, of the 8th and 9th standards, were selected for the study. Pre-designed, pretested and structured questionnaire was used

in the study. The data collection technique was a personal interview of the study subjects.

### Methodology

After taking permission from the school authorities, the class teachers of the 8th and 9th standards were explained the purpose of the study and verbal consents of girl students were obtained.

The purpose of the study and the nature of the information which had to be furnished by the study subjects were explained to them. The research protocol was approved by the Institutional Ethics Committee.

Data was recorded in MS Excel and checked for its completeness and correctness then it was analysed by suitable statistical software and P value <0.05 was considered as a statistically significant.

### RESULTS

**Table 1: Demographic characteristics of the study subjects.**

Characteristics	No.	%
<b>Age in years</b>		
12	13	4.94
13	87	33.08
14	119	45.25
15	33	12.55
≥16	11	4.18
<b>Education status of mother</b>		
Literate	247	93.92
Illiterate	16	6.08

Majority of the school going adolescent girls belongs to 13 and 14 year of age. A majority of the mothers of the study girls were educated and 6.08% of the mothers were illiterate (Table 1).

Majority girls had menarche at age of 13 year.

It was evident that only 137 (52.09%) of the girls were aware about menstruation before menarche and the most important sources of the information were mothers (41.61%), sisters (12.41%) and friend (13.87%).

While the other sources of information were Teachers, Relatives, TV, Movie, Magazines and others. 42.59% of girls were scared at the time of their first menstrual cycle.

Another 19.77%, 16.35% and 14.07% of girls felt usual, irritation/disgusted and discomfort respectively. Regarding restrictions 57.79% of the girls responded that they do not attend Religious occasion during menstruation. 51.33% of the girls did not visit/attend others home, family functions and any type of Physical

activity. Surprisingly 16.35% of girls reported that they do not have any restrictions (Table 2).

Majority of the girls were using cloth (49.81%) and only 17.87% were using sanitary napkins. Cleaning of external genitalia was not satisfactory (frequency of cleaning of external genitalia is nil or <2 times/day) in 32.70% of the girls.

Only 58.17% girls used both soap and water for cleaning the genitalia. Only 48.29% girls satisfactorily disposed the used cloth pieces or sanitary napkins (Table 3).

**Table 2: Information about menarche and perception about menstruation (n=263).**

Variable	No.	%
<b>Age of menarche (years)</b>		
≤11	21	7.98
12	57	21.67
13	134	50.95
14	34	12.93
≥15	17	6.46
<b>Awareness about menstruation before menarche</b>	137	52.09
<b>Source of information before menarche* (n=137)</b>		
Mother	57	41.61
Sister	17	12.41
Friends	19	13.87
Teachers	9	6.57
Relatives	4	2.92
TV	7	5.11
Movie	3	2.19
Magazines and others	21	15.33
<b>Reaction to 1st menstruation</b>		
Scared	112	42.59
Usual	52	19.77
Discomfort	37	14.07
Irritation/disgusted	43	16.35
Other than above	19	7.22
<b>Restrictions and taboos (avoided activities) during menstruation</b>		
Religious occasion	152	57.79
Physical activity/playing	33	12.55
Schooling	19	7.22
Attending family functions	39	14.83
No restrictions at all	43	16.35
Household work	11	4.18
Keeping fast	7	2.66
Avoiding visit to others home	63	23.95
Avoiding regular bath	17	6.46

Pain in abdomen (59.70%) was found to be the most frequent complaint during menstruation followed by headache / irritation (23.57%), loss of appetite (11.79%) and leg cramps (11.03%) etc (Table 4).

**Table 3: Menstrual hygiene and practices during menstruation.**

Practice of menstrual hygiene	No.	%
<b>Use of material during menstruation</b>		
Sanitary napkins	47	17.87
New cloths	28	10.65
Reuse old cloth	103	39.16
Alternate use of above all	85	32.32
<b>Cleaning of external genitals</b>		
Not at all	18	6.84
<2 times	68	25.86
> 2 times	94	35.74
As per convenience and privacy	83	31.56
<b>Cleaning with</b>		
Soap and water	153	58.17
Only water	84	31.94
Piece of paper	7	2.66
Piece of cloth	19	7.22
<b>Disposal of menstrual material used</b>		
Throwing in dustbin	124	47.15
Flushing in toilets	31	11.79
Washing and reusing	82	31.18
Don't want to tell	23	8.75
Dumping/burning	3	1.14

**Table 4: Health problems during menstruation.**

Complications	No.	%
Pain in abdomen	157	59.70
Nausea /vomiting	15	5.70
Headache/irritation	62	23.57
Palpitation/giddiness	13	4.94
Leg cramps	29	11.03
Loss of appetite	31	11.79

## DISCUSSION

The current study reveals that the age of menstruating girls ranged from 12 to 16 and 17 years. A similar study reported that the age of the menstruating girls ranged from 12 to 17 years with the majority of the girls being between 13 to 15 years of age.

Nearly similar findings were also reported by Ghattargi et al. The present study observed that the age of menarche ranged from 11 to 15 years while Ghattargi et al observed that the age of menarche in their study ranged from 12 to 17 years with the maximum number of girls between 13 to 15 year of age which is nearly similar to the finding of the current study.<sup>10</sup>

Age of menarche of the participants ranged between 11 to 15 year (88.5%) according to study by Ramachandra et al. A similar comparable study was also conducted in Rajasthan by Khanna et al (mean age at menarche to be 13.2 year).<sup>5,12</sup>

A study by Ramachandra et al showed that only 33.27% the urban had awareness about menstruation prior to menarche while in current study, the awareness among girls regarding menstruating menarche was 52.09%.<sup>12</sup>

Interestingly a study conducted by Adirija et al, reported that 72.01% of the urban participants and only 39.01% rural participants had knowledge prior to menstruation.<sup>13</sup>

Mothers followed by friends, Magazines and sisters were the more sources of information in our study. Similar findings were observed by other authors where mother was the first informant.

Different reactions to menarche may depend on the extent to which the adolescent girls have been prepared for the same. In the present study, majority of the girls were scared during their first menstruation while fear and panic was the reaction observed in the study conducted by Dube et al and Ghattargi et al. Majority of the participants expressed negative reaction to menstruation. It showed the fact that girls with no previous awareness about menstruation felt more negative reactions.<sup>14,10</sup>

In this study, majority of the girls 57.79% did not attend religious functions during their cycle. 23.95%, 14.83% and 12.55% girls were not attending others home, family functions and physical activity respectively. Surprisingly, 16.35% girls do not have any kind of restrictions during their menstruation. Ghattargi et al found that 21.06% rural girls were not practising taboos which was slightly higher than the current study.<sup>10</sup>

Less than 20% girls use sanitary napkins available in the market. Khanna et al and Quazi et al in their current study found that more than three fourth of girls use cotton cloth and reuse them after washing.<sup>5,15</sup> 32.7% of the girls were not following satisfactory cleanliness of external genitalia (frequency of cleaning is nil or <2 times a day). Soap and water was used for cleaning by 58.17% of girls. 48.29% girls properly disposed the cloth pieces or sanitary pads used. Nearly similar findings were observed in the study of Dasgupta et al.<sup>11</sup>

Pain in abdomen (59.70%) was found to be the most frequent complaint during menstruation followed by headache/irritation (23.57%), loss of appetite (11.79%) & leg cramps (11.03%) etc. Majority of the girls reported experiencing stomach ache (63.5%) followed by nausea (41.5%), pain in leg (12.0%), loss of appetite (24.0%) and very few stated having headache as reported by Rajni Dhingra and et al (2009).<sup>1</sup>

## CONCLUSION

It can be concluded that among the adolescent girls, the knowledge on menstruation is sub-optimal and the practices are unacceptable for proper hygiene. Menstrual hygiene is an important issue needs to be ensured. A variety of factors are known to affect menstrual

behaviours. Awareness regarding the need for information on healthy menstrual practices is very important. It is essential to design a mechanism to address and for the access of healthy menstrual practices. Periodic gynaecology check-up should be recommended to all school going girls. It should be followed by appropriate remedial measures.

## ACKNOWLEDGMENTS

The authors would like to thank all the faculty and technical staff members of the Department of Obstetric and Gynaecology and Department of community medicine, RIMS, Raipur (C.G.) India, for their immense cooperation and support during the entire study.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

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**Cite this article as:** 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.