

## Study of Menstrual Hygiene of School Going Adolescent Girls in Gurgaon, Haryana



### Medical Science

**KEYWORDS :** Menarche, Menstrual hygiene, Menstrual problems

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### ABSTRACT

**Background:** Adolescent girls comprises about 20% of total population, constitute a vulnerable group in India. Although a natural process, menstruation is linked with several misconceptions and practices. There is a substantial lacuna in the knowledge about menstruation among adolescent girls. Poor personal hygiene and unsafe sanitary conditions may results in gynecological problems and high prevalence of reported cases of infections among adolescent girls.

**Objective:** To assess the knowledge, perception, and the practices of menstrual hygiene among rural and urban school going adolescent girls.

**Methodology:** A descriptive cross sectional study was conducted among adolescent school girls studying in classes 6th to 12th taken by random sampling in six schools using predesigned & pretested schedule.

**Results:** Mean age of menarche was found to be 13.6 years (SD 1.72). On the average a girl used 2.4 pads daily (SD 1.25) during menstruation. 44.4% of girls were aware before about the menstruation before menarche. Mother was main educator (57.5%) to their daughter about menarche. Majority of girls (56.2%) considered it as normal physiological problems. Most of the girls (87%) used pad during menses and disposed them by throwing away. Among cloth users main reason was financial constrains but they are desirous of using sanitary pad. Social restriction was observed during menses by a majority of girls (79.4%) mainly avoid worship. Pain abdomen was complained by 40.2% but 45.5 % had no problem. 85 % did not take any treatment for these problems.

**Conclusion:** Poor menstrual hygiene and unsafe sanitary conditions may results in gynecological problems and high prevalence of reported cases of infections among adolescent girls. Good hygienic practices such as the use of sanitary pads and adequate washing of the genital area are essential during menstruation.

### Introduction

Menstruation is a phenomenon unique to the females. Menstruation is generally considered as unclean in the Indian society. Isolation of the menstruating girls and restrictions being imposed on them in the family, have reinforced a negative attitude towards this phenomenon. Adolescent girls comprises about 20% of total population, constitute a vulnerable group in India. Although a natural process, menstruation is linked with several misconceptions and practices. There is a substantial lacuna in the knowledge about menstruation among adolescent girls. Poor personal hygiene and unsafe sanitary conditions may results in gynecological problems and high prevalence of reported cases of infections among adolescent girls. Good hygienic practices such as the use of sanitary pads and adequate washing of the genital area are essential during menstruation.<sup>1</sup>

### Objectives:

To assess the knowledge and the practices of menstrual hygiene among rural and urban school going adolescent girls.

### Materials and Methods:

**Study Design:** Descriptive Cross-sectional study

**Study Setting:** Among adolescent school going girls in the field practice areas of the Rural Health Unit and Urban Health Unit of SGT University in Gurgaon district. Study was carried out among adolescent school girls studying in classes 6<sup>th</sup> to 12<sup>th</sup> taken by random sampling in six schools.

**Study Population:** School going adolescent girls. Those who have not attained menarche and those unwilling to

participate were excluded from the study.

**Sample Size:** A sample size of 400 was derived by taking the prevalence of menstrual problems to be 50%, CI 95% & a relative precision of 10%.

$$(\text{Sample size} = (Z P * Q / L^2))$$

Where P = prevalence, Q = (100-P)

L = Relative error

Z = constant (1.96)<sup>2</sup>

**Study Tools and Technique:** A pre-designed, pretested and semi-structured questionnaire would was used in the study. The data collection technique was personal interview of the study subjects.

**Methodology:** Permission was taken from the school authorities. 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 pre-designed, pretested and structured questionnaire including details of menstrual practices & demographic information were enquired and then documented.

The research protocol was approved by the Departmental and Institutional Research Committee. The ethical clearance for the study was obtained from institutional ethical committee of SGT University, Gurgaon.

**Data Analysis:** The data collected were entered in Microsoft excel sheet and analyzed in SPSS and R software packages<sup>2</sup> using appropriate statistical tools.

## Results

Mean age of menarche was found to be 13.6 years (SD 1.72). On the average a girl used 2.4 pads daily (SD 1.25) during menstruation. 4.9% of girls were below 11 years, 59.5% in 12-13 yrs, 33.7 % in 14-15yrs and 2% in 16 years & above age groups in study.

In the present study (Table1) Most of the girls (87%) used pad during menses and disposed them by throwing away. Among cloth users main reason was finance constrains but they are desirous of using sanitary pad.

A majority (44.4%) of adolescent girls (Table2) were aware about the menstruation before menarche. Mother was main educator (64.1%) to their daughter about menarche. Majority of girls (56.2%) considered it as normal physiological problems.

As per Table (3) Most of the subject (79.4%) had regularity on menstruation period. Social restriction was observed during menses by a majority of girls (54.6%) mainly avoid worship. Pain abdomen was complained by 40.2% but 45.8 % had no problem. A majority (85.9 %) of girls did not take any treatment for these problems.

## Discussion

This study shows mean age of menarche was found to be 13.6 years (SD 1.72). On the average a girl used 2.4 pads daily (SD 1.25) during menstruation. 4.9% of girls were below 11 years, 59.5% in 12-13 yrs, 33.7 % in 14-15yrs and 2% in 16 years & above age groups in study. Similar study conducted by Deo *et al*<sup>3</sup> reported that the age of menstruating girls ranged from 12 to 17 years with maximum number of girls between 13 and 15 years of age. In a study conducted by Das *et al.*<sup>4</sup> the mean age of menarche of the respondents was 12.8 years, whereas in a study conducted in Rajasthan by Khanna *et al*<sup>5</sup>, the mean age at menarche was found to be 13.2 years. Unfortunately, 38.6% girls were ignorant about menstruation before menarche in this study. However, mother was the first informant only in their study.

In the present study 44.4% of girls were aware about the menstruation before menarche. Mother was main educator (64.1%) to their daughter about menarche. Majority of girls (56.2%) considered it as normal physiological problems. Most of the girls (87%) used pad during menses and disposed them by throwing away. Among cloth users main reason was finance constrains but they are desirous of using sanitary pad. Similar findings were reported from their separate studies conducted by Thakre *et al.*<sup>6</sup> and Kansal *et al*<sup>7</sup>.

Most of the subject (79.4%) had regularity on menstruation period. Social restriction was observed during menses by a majority of girls (54.6%) mainly avoid worship. Pain abdomen was complained by 40.2% but 46.4 % had no problem. 85.9 % did not take any treatment for these problems. Social taboo and social restrictions were also reported from findings form other studies.<sup>8,9</sup>

The study carried out by Paria *et al.*<sup>10</sup> compared the menstrual hygienic practice between rural and urban are also observed that 176 (64%) in urban area and 120 (45.11%) in rural area used sanitary pads. In a study conducted in Telugana by Rajkumari Angel<sup>11</sup> showed that a majority of the

girls were ignorant about the use of sanitary pads during menstruation which was found to be significantly increased after educational intervention among them. Yashmin *et al.*<sup>12</sup> from Kolkota and Balmurgan *et al.*<sup>13</sup> from their rural study reported concordant results with our study. A multivariate -analytic study carried out by Ray *et al.*<sup>14</sup> reported similar findings. Salve *et al.*<sup>15</sup> and Kamaljit *et al.*<sup>16</sup> also reported from their separate studies that social beliefs and knowledge of girls were strongly associated with hygienic practices during menstruation among adolescent as well as women in reproductive age group finding both in rural and urban population.

**Table 1. Menstrual Hygiene Practices**

Distribution of subjects as per pad/cloth used	No.	Percent	Stat. Cal
Cloth	48	11.8	$\chi^2=819.20$
Cloth/pad	3	0.7	$p<2.2\times 10^{-16}$
Pad	357	87.5	
Total	408	100.0	
Distribution of subjects as per pad/cloth disposal method	No.	Percent	
Burn	15	3.6	$\chi^2=1204$
Dustbin	28	6.9	$p<2.2\times 10^{-16}$
Throw away	332	81.4	
Underground	9	2.2	
Used again	24	5.9	
Total	408	100.0	
Distribution of subjects as per pad/cloth reused	No.	Percent	
No	367	89.9	$\chi^2=517.77$
Yes	41	10.1	$p<2.2\times 10^{-16}$
Total	408	100.0	
Distribution of subjects as per drying method among cloth re-users	No.	Percent	
Not reusing	367	89.9	$\chi^2=1224.42$
In dark	9	2.2	$p<2.2\times 10^{-16}$
In sun	17	4.2	
Terrace	15	3.7	
Total	408	100.0	
Distribution of subjects as per reason for not using pad	No.	Percent	
Using pad	355	87.0	$\chi^2=1134.90$
Financial problem	49	12.0	$p<2.2\times 10^{-16}$
Mother did not agree	1	0.2	
Nobody uses at home	3	0.8	
Total	408	100.0	
Distribution of subjects as per toilet facility at home	No.	Percent	
No	16	3.9	$\chi^2=689.34$
Yes	392	96.1	$p<2.2\times 10^{-16}$
Total	408	100.0	

**Table 2. Knowledge about menstruation**

Distribution of subjects as per reason known for menstruation	No.	Percent	Stat. Cal.
Disease	19	4.6	$\chi^2=468.55$
Don't know	157	38.6	$p<2.2e-16$
Normal	229	56.2	
Reason to reproduce	3	0.7	
Total	408	100.0	
Person who informed about menstruation	No.	Percent	
Book	5	1.3	$\chi^2=1048.85$
Doctor	1	0.3	$p<2.2\times 10^{-16}$
Friend	37	9.1	
Mother	262	64.1	
None	13	3.3	
Relative	14	3.5	
Sister	76	18.6	
Total	408	100.0	

Distribution of subjects as per knowledge before hand			
No	227	55.6	$\chi^2= 9.93$
Yes	181	44.4	$p=0.00163$
Total	408	100.0	

**Table 3 Problems and Restriction practiced during menstruation**

Distribution of subjects as per regularity of menses			
Cannot say	4	1.0	$\chi^2=616.59$
No	80	19.6	$p < 2.2e-16$
Yes	324	79.4	
Total	408	100.0	
Distribution of subjects as per problems during menses			
Backache	31	7.5	$\chi^2= 461.99$
Irritation	1	.3	$p < 2.2e-16$
Multiple	25	6.2	
Pain abdomen	164	40.2	
No problem	187	45.8	
Total	408	100.0	
Distribution of subjects as per any treatment taken for problem			
Drink more water	1	.3	$\chi^2= 1100.81$
Hot milk	5	1.3	$p < 2.2e-16$
Medicine	51	12.4	
No treatment	351	85.9	
Total	408	100.0	
Restrictions practiced during menstruation			
Avoid playing	8	2.0	$\chi^2= 517.76$
Avoid worship	140	34.3	$p < 2.2e-16$
Food restriction	23	5.6	
Avoid worship, food restriction	21	5.2	
Avoid worship, playing	27	6.5	
No restrictions	189	46.4	
Total	408	100.0	

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