



# MENSTRUAL HYGIENE: KNOWLEDGE AND PRACTICE AMONG ADOLESCENT GIRLS OF RURAL KHEDA DISTRICT

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## ABSTRACT

**Background:** Menarche is not just a physiological phenomenon but it is a psychological, social as well as behavioral transition for an adolescent girl from girlhood to womanhood. Menstrual hygiene is most important, still neglected area of concern. Objective of study was to find out menstrual pattern, knowledge and practice among adolescent girls.

**Method:** A cross sectional study was undertaken in a rural area of Kheda district. Randomly selected 200 adolescent girls were interviewed using predesigned pretested questionnaire.

**Results:** It was evident that 47.5% participants were aware about menstruation before their menarche and the most important sources of information were mothers in 54% girls. 10.5% respondents used only sanitary napkin during menstruation. 77% changed absorbent 1 to 2 times a day.

**Conclusion:** This study has highlighted the need of adolescent girls to have accurate and adequate information about menstruation.

**Key words:** Adolescent Girl, Menarche, Menstruation, Menstrual Hygiene, Practices.

## INTRODUCTION

Adolescence in girls is a phase of transition from girlhood to womanhood and marks the onset of female puberty. This period of attaining reproductive maturity between the ages of 10-19 years is marked by a number of physiological, behavioral and psychological changes, the most notable being the onset of menstruation.

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.<sup>1-3</sup> Social prohibitions and the negative attitude of parents in discussing the related issues openly, have blocked the access of adolescent girls to the right kind of information, especially in the rural and tribal communities.<sup>4</sup>

Many studies have revealed that most of the adolescent girls had incomplete and inaccurate information about the menstrual physiology and hygiene. It also revealed that mothers, television, friends, teachers and relatives were the main sources which provided information on menstruation to the adolescent girls.<sup>4-6</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>7</sup> Menstrual hygiene and management will directly contribute to (MDG)-2 on universal education, MDG-3 on gender equality and women empowerment.<sup>8</sup> However, the attention on this issue is far from sufficient and even the literature on gender mainstreaming in the sanitary section is silent on the issue of menstrual management.<sup>9</sup> A key priority for women and girls is to have the necessary knowledge, facilities and the cultural environment to manage menstruation hygienically and with dignity. Very few studies 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. The data about their level of knowledge and the practices which are followed by them with respect to menstruation are beneficial for planning a program for improving the awareness level with respect to their life processes and promoting their quality of life. Hence, the present study was carried out to find out the age of menarche among the girls, to know the menstrual pattern and menstrual hygiene practice and the prevalence menstrual disorders.

## METHODS:

It was a descriptive community based study with cross-sectional design among adolescent girls studying in 8<sup>th</sup> to 12<sup>th</sup> standard. A total 200 adolescent girls of age 13 to 18 years were taken from 4 rural government schools of Mahemdavad block in Kheda district of Gujarat who were present in the school on day of data collection. Adolescent girls who had attained menarche were only included in the study and constituted the study population. From the previous studies it was revealed that mean age of menarche was 13.2 years (Deo DS and Ghattargi CH et al,<sup>5</sup> Kajal Jain et al,<sup>10</sup>). Hence students of only class 8<sup>th</sup> onwards were decided to be included in the study.

A pre-designed pre-tested questionnaire was prepared for collection of data. The schools were visited as per pre-planned schedule for getting information from the adolescent girls during month of January, 2014. The adolescent girls were explained about the purpose of the study and were assured of confidentiality. A verbal consent was obtained from the girls before interviewing which included questions regarding the knowledge and awareness about menstruation, the source of information and practices followed to maintain menstrual hygiene. The questionnaire was filled up by individual interview in separate class room where only adolescent girls were gathered. This was followed by a session educating the girls about the normal physiology of menstruation, the importance of maintaining hygiene and safe hygienic practices during menstruation. Data were then compiled in an Excel sheet and were analyzed using Epi Info.

## RESULTS

**Table 1: Socio-demographic profile of the study population (N=200)**

Variable	No. (%)
<b>Age (years )</b>	
13	10(5.0)
14	40(20.0)
15	76(38.0)
16	43(21.5)
17	17(8.5)
18	14(7.0)
<b>Religion</b>	
Hindu	186(93.0)
Muslim	14(7.0)
<b>Type of family</b>	
Joint	104(52.0)
Nuclear	96(48.0)
<b>Mother education</b>	
Illiterate	36(18.0)
Primary	72(36.0)
Secondary	60(30.0)
Higher secondary	21(10.5)
Graduate	11(5.5)
<b>Mother occupation</b>	
Housewife	194(97.0)
Job	6(3.0)

Table 1 depicts the demographic details of the study subjects. The study showed that age of the respondents (n=200) varied from 13-18 years. Majority (93%) of the participants was Hindu and 52% participants were living in joint family. Mothers of 36% of the study girls had completed their primary education (class VII Pass) while 18

% of the mothers were illiterate. Majority (97 %) mothers were house wife.

Table 2 shows that the mean age of menarche in the study subjects was  $13.44 \pm 1.35$  years. It was evident that 95 (47.5 %) participants were aware about menstruation before menarche and the most common source of the information were mothers in 54 % girls. It was observed that 94 (47%) girls believed that it was a natural process and 64 (32 %) believed it as a hormonal process. Total 145 (72.5%) girls were not aware of the source of the menstrual bleeding. Only 55 (27.5 %) girls were aware that the source of the menstrual bleeding was the uterus and 76% girls believed that menstrual blood is impure.

**Table 2: Information Regarding Menstrual profile and knowledge in the study population (N = 200)**

Menstrual profile	No. (%)
<b>Age at menarche ( in years)</b>	
11	10(5.0)
12	29(14.5)
13	60(30.0)
14	72(36.0)
15	24(12.0)
16	03(1.5)
17	02(1.0)
<b>Experience of Inter menstrual interval by participant</b>	
Less than 25 days	09(4.5)
25 to 28 days	68(34.0)
28 to 35 days	83(41.5)
More than 35 days	40(20.0)
<b>Duration of menstrual cycle during each period</b>	
Less than 2 days	6(3.0)
2 to 3 days	42(21.0)
3 to 5 days	112(56.0)
More than 5 days	40(20.0)
<b>Usual Menstrual cycle</b>	
Regular	139(69.5)
Irregular	61(30.5)
<b>Knowledge and belief regarding menstruation</b>	
<b>Pre menarche knowledge</b>	95(47.5)
<b>Post Menarche Source of knowledge</b>	
Mother	108(54.0)
Sister	44(22.0)
Friends	46(23.0)
Others (teachers, magazine)	2(1.0)
<b>Belief regarding causes of menstruation</b>	
Hormonal	64(32.0)
Natural	94(47.0)
physical	42(21.0)
<b>Correct Knowledge of organ from where bleeding occurs</b>	55(27.5)

Table 4 shows associated symptoms with periods. Pain in abdomen was the most common associated symptom among 62 % girls, followed by back ache in 26 %, Headache, weakness, nausea / vomiting and breast pain were the other associated symptoms.

**Table 3: Distribution of girls according to menstrual practices**

Variables	No. (%)
<b>Use of material during menstruation(n=200)</b>	
Sanitary napkin only	21(10.5)
Old cloth	52(26.0)
New cloth	51(25.5)
Sanitary pad and cloth	76(38.0)
<b>Frequency of change (n=200)</b>	
Once a day	74(37.0)
Twice a day	80(40.0)
Thrice a day	35(17.5)
More than thrice	11(5.5)
<b>Method of disposal(n=200)</b>	
Cloth pieces reused	103(51.5)
Sanitary pads / cloth pieces disposed in dust bin	45(22.5)
Sanitary pads / cloth pieces thrown indiscriminately	52(26.0)
<b>Place of drying cloth pieces (n=179)</b>	
Inside home	10(5.6)
Outside home without sunlight	56(31.3)
In sunlight	113(63.1)
<b>Perception regarding sanitary napkins (n=97)</b>	
Comfortable	45(46.4)
Adequate absorption	20(20.6)
Do not stain clothes	32(33.0)
<b>Reason for not using sanitary pad(n=103)</b>	
Cost	10(9.7)
Difficulty in disposal	35(34.0)
No knowledge	40(38.8)
Shyness	18(17.5)
<b>Hand Washing (n=200)</b>	
water	40(20.0)
Soap and water	160(80.0)

**Table 4: Prevalence of menstrual disorders in the study population (N=200)**

Symptoms	No. (%)
Pain in abdomen	124(62.0)
Headache	37(18.5)
Nausea/Vomiting	09(4.5)
Weakness	29(14.5)
Excessive bleeding	30(15.0)
Breast pain	06(3.0)
Bach ache	52(26.0)

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Mood changes	16(8.0)
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\*Multiple answers were allowed.

## DISCUSSION

In our study, data reveals that the mean age of menarche in the study subjects was  $13.44 \pm 1.35$  years. Age at menarche of the participants ranged between 11 to 15 years (88.5%) which is comparable to a study conducted in an urban area of Meerut, Uttar Pradesh (2009), Kajal Jain et al;<sup>10</sup> where mean age at menarche was noted to be 13.16 years. Deo DS and Ghattargi CH<sup>5</sup> highlighted that the age of menarche in their study in Ambajogi, Beed district (1999) ranged from 12 to 17 years with the maximum number of girls between 13 and 15 years of age.

In present study 41.5% adolescent girls had 28-35 days cycle followed by 25-28 days (34%), duration of menstruation was 3 to 5 days in 56% girls and 69.5% girls found their menstruation to be regular and among only 30.5% girl's menstruation was irregular. A study done by P.B. Verma et al, in Bhavnagar(2011) suggested that the most common menstrual pattern found among girls was 30/3-5 days followed by 28/5-7 days and 75.76% girls found their menstruation to be regular and among only 24.24% girl's menstruation was irregular.<sup>15</sup>

About 47.5% girls were found to have pre-menarcheal knowledge regarding menstruation which is similar to the study conducted in west Bengal (2012), Adrija Datta et al;<sup>11</sup> reported 72.1% in urban and 39.1% in rural area, while pre-menarcheal knowledge regarding menstruation was nearly 97% in a study Lawan UM et al,<sup>12</sup> carried out in Kano, Nigeria (2010) and 92% in a study conducted in Nepal, WaterAid / Anita Pradhan et al (2009).<sup>13</sup> A study done by P.B. Verma et al, in Bhavnagar(2011) suggested that 88.1% girls were informed about menstruation and the main source of information(57.2%) was the mother of the girl.<sup>15</sup> The present study of rural Gujarat shows social prohibitions and the negative attitude of parents in discussing the related issues openly, have blocked the access of adolescent girls to the right kind of information.

In present study, 89.5% girls were using cloth during menstruation. Most of the respondents (77%) changed absorbent 1 to 2 times a day and 51.5% girls reused cloth piece. A study done in Urban Slum of Mumbai (2010.), Prateek S. Bobhate et al;<sup>14</sup> was reported that 72.2% of the subjects were knowing that sanitary pads should be used during menstruation but out of them only 59.8% were actually using it. Frequency of changing sanitary

pad or cloth varied from once per day to 3 times per day depending upon the day of menstrual period and type of absorbent material used. A study, P.B. Verma et al, in Bhavnagar (2011) reported majority of girls (87.3%) used old plain cloth during menstruation and only 10.6% used commercially available sanitary napkins. The reason of not using sanitary pad in present study was found lack of knowledge (38.8%) and difficulty in disposal after use (34%).

The most common menstrual problem was dysmenorrhea (62%), followed by back ache (26%) and Head ache (18.5%). A study done by P.B. Verma et al, in Bhavnagar (2011) reported the most common menstrual problem was dysmenorrhea (50.6%), followed by irregular menses (22.9%).<sup>15</sup> A study conducted in west Bengal (2012), Adrija Datta et al;<sup>11</sup> reported Pain in abdomen was the most common associated symptom among both urban (86.7%) and rural (90.9%) students, followed by weakness (46.7% in urban and 28.8% in rural area).

## CONCLUSION

Three main problem areas identified in this study were poor knowledge on biology of menstruation, majority of girls having symptoms associated with menstruation and low use of sanitary napkin. This study revealed that most of the rural girls used cloth pieces as menstrual pads and they reused the clothes after washing them with soap and water.

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. It is also essential for the teachers, who may not have the necessary skills to impart reproductive health education, including menstrual hygiene to their students.

Schools should be another entry point for improving menstrual health by integrating menstrual hygiene into curriculum, provision of toilets and even supplying sanitary napkin. Menstrual health is an important part of life cycle approach to

women's health, so loud and clear messages and services on this issue must reach adolescent girls.

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