

Research Article

Menstrual Hygiene amongst the School Going Adolescent Girls in Rural Area

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Abstract: The present study was undertaken to assess the knowledge and practices related to menstruation amongst the school going adolescent girls in rural area. The study subjects comprise of 178 adolescent girls in field practice area of Rural Health Training Centre of GMC, Akola (Maharashtra-India). The results revealed that most of the girls lacked conceptual clarity about the process of menstruation and pubertal changes. Poor hygienic conditions were observed during menstruation amongst these adolescent girls. Most of the girls use old cloth, cotton wool or dirty cloths as menstrual absorbent. Only 30.9 % and 20.8 % girls respectively used sanitary napkins and new cloths pieces as absorbent of menstrual blood. Only 17.9 % adolescent girls changed the pads depending on situation, 51.1 % girls did not even wash their genitalia during bathing. 52.2 % girls used to take bath on 3rd day of menstruation. Only 48.9 % girls knew about various contraceptive methods. None of these adolescents knew about emergency contraception. Imparting knowledge about menstruation and safe practices during menstruation, about contraception including emergency contraception is necessary to mitigate the suffering of these adolescent girls and preventing sexually transmitted diseases and unwanted pregnancies. This could further help them to lead a healthy life.

Keywords: Menstrual hygiene, Menarche, Pubertal changes, Contraceptives, Adolescent.

INTRODUCTION

Menstruation starts when girl become sexually mature at the time of puberty. It is most important physiological phenomenon that occurs among the girls during the adolescence period. Adolescent girls constitute a vulnerable group particularly in India where menstruation is still regarded as something dirty and messy. The menstruation is generally associated with shame, fear, anxiety and depression. Even to this date in India mere mention of the topic has been a taboo. The cultural and social influences appear to be hurdle for advancement of knowledge of the subject. Although menstruation is a natural physiological process it is associated with several misconceptions and practices and the problem of menstrual hygiene is more serious in rural area. This results in adverse health outcomes in these adolescent girls. Awareness about menstruation and hygienic practices followed during menstruation are of immense importance as it has a health impact in terms of increased vulnerability to reproductive tract infection. Imparting knowledge about menstruation and safe practices during menstruation is necessary to mitigate the suffering of adolescent girls. But before developing IEC (Information, Education and

Communication) program about menstrual hygiene for these girls it is necessary to find out their present knowledge about menstrual hygiene.

The present study is undertaken to elicit the knowledge about menstrual hygiene and various hygienic practices followed during menstruation in the school going adolescent girls in rural area.

MATERIALS AND METHODS

The present community based cross sectional study was undertaken amongst the school going adolescent girls in the field practice area of the Rural Health Training Centre at Mahan, which is attached to the Government Medical College, Akola (Maharashtra-India). Adolescent girls of 8 to 10 standards who have already attained menarche and willing to participate in the study were included in the present study. Before the start of study permission to carry out the study was sought from school authorities. There are two secondary high schools in the village, Mahan. The total number of girls of 8 to 10 standards from both the school was 197. Of these 19 girls were excluded from the study for reasons – not attained the menarche (14) and not willing

to participate (5). Thus 178 girls were included in the study. Data was collected by a pre designed, pre tested and structured self-administered questionnaire by maintaining the anonymity. The questionnaire included the topic related to awareness about menstruation, source of information regarding menstruation, hygiene practiced during menstruation. Information was also obtained about knowledge of pubertal change, various contraceptive methods and various taboos and beliefs about menstruation. Informed consent was sought from concerned authority and from the students before the

data collection. Collected data was analysed by using Epi-info 3.2.05 computer statistical software.

RESULTS

Out of 178 adolescent girls, 31.5 % belonged to early adolescent, 41.6 % to middle adolescent and 26.9 % to late adolescent period (Table 1.) Mean age of the adolescents was 14.1 with the range of 13 years to 17 and half years. All these girls had attained menarche and were unmarried at the time of survey.

Table 1: Age wise distribution of adolescent girls

| Age in years | No. of adolescent girls | Percentage |
|---------------------------|-------------------------|------------|
| 10-13 (early adolescent) | 56 | 31.5 |
| 14-16 (middle adolescent) | 74 | 41.6 |
| 17-19 (late adolescent) | 48 | 26.9 |
| Total | 178 | 100 |

Awareness about pubertal changes in these adolescents is shown in table 2. Enlargement of breast and start of menstruation were the characteristics of adolescent period according to 38.2 % and 35.4 % girls respectively. Change in voice, increase in height and weight and growth of axillary hairs and pubic hairs

during adolescent period were known to 32.6 %, 19.7 % and 11.8 % adolescent girls respectively. Development of genital organs, source of menstrual bleeding and ovulation during adolescent period were known to 15.2%, 7.9 % and 6.7 % adolescent girls respectively.

Table 2: Awareness about pubertal changes in the adolescent girls (n=178)

| Awareness about pubertal changes | No. of adolescent girls | Percentage |
|------------------------------------------|-------------------------|------------|
| Enlargement of breast | 68 | 38.2 |
| Start of menstrual bleeding | 63 | 35.4 |
| Change in voice | 58 | 32.6 |
| Increase in height and weight | 35 | 19.7 |
| Growth of axillary hairs and pubic hairs | 21 | 11.8 |
| Development of genital organs | 27 | 15.2 |
| Source of menstrual bleeding | 14 | 07.9 |
| Ovulation | 12 | 06.7 |

The most common source of information about menstruation was friends (37.6%) followed by mother (29.8%), health workers (16.3%) and relatives. Very

few knew about it from television (3.9%) or books (5.1%) (Table 3)

Table 3: Source of prior knowledge about menstruation in adolescent girls (n=178)

| Source of knowledge | No. of adolescent girls | Percentage |
|---------------------|-------------------------|------------|
| Friend | 67 | 37.6 |
| Mother | 53 | 29.8 |
| Relatives | 27 | 15.2 |
| Health worker | 29 | 16.3 |
| Television | 07 | 03.9 |
| Book | 09 | 05.1 |

Out of 178 adolescent girls, 9 (5.1 %) girls had attained the menarche at the age of 11 to 12 years, 114 (64%) at the age of 13 to 14 years while 55 (30.9%) attained menarche at the age of 15 to 16 years. Mean

age at menarche was 13.5 years with the range of 11 to 16 years (Table 4). Menstrual pattern was regular in 109 (61.2%) adolescents while irregular in 48 (38.8 %) cases.

Table 4: Age at menarche in the adolescent girl

| Age at menarche (Years) | No. of adolescent girls | Percentage |
|-------------------------|-------------------------|------------|
| 11-12 | 09 | 05.1 |
| 13-14 | 114 | 64.0 |
| 15-16 | 55 | 30.9 |
| Total | 178 | 100 |

Sanitary practices followed by these adolescent during menstruation were shown in table 5.

Table 5: Practices followed by study subjects during menstruation (n=178)

| Practices during menstruation | | No. of adolescent girls | Percentage |
|-----------------------------------|--------------------------|-------------------------|------------|
| Material used during Menstruation | Sanitary pads | 55 | 30.9 |
| | New cloth pieces | 37 | 20.8 |
| | Old cloth pieces | 62 | 34.8 |
| | Cotton wool | 04 | 02.2 |
| | Dirty or reused of cloth | 20 | 11.3 |
| Frequency of changing pads | 1 in one period | 87 | 48.9 |
| | Changes daily | 59 | 33.2 |
| | Depending on situation | 32 | 17.9 |
| Cleaning of genitalia | With water | 66 | 37.1 |
| | With soap and water | 21 | 11.8 |
| | Not cleaning genitalia | 91 | 51.1 |

92 (51.7%) girls used sanitary napkin and new cloth pieces during menstruation as a menstrual blood absorbent while 86 (48.3%) girls used old cloth pieces, cotton wool or dirty reused cloth as a menstrual blood absorbent. Sanitary pads were changed once in one period by 48.9 % girls, once in a day by 33.2% girls and depending on a situation by 17.9% girls. 37.1 % girls cleaned their genitalia with water only and 11.8% girls with soap and water. 51.1 % girls did not clean the genitalia during menstruation.

Almost all girls i.e. 161 (90.4%) were restricted from worshipping god during menstruation. 41 (23.0%) girls used separate bed for sleeping, 22 (12.6%) followed untouched during menstruation. 72 (40.4%) girls were forbidden to attend visitors. 112 (62.9 %) girls avoided heavy work during menstruation. 93 (52.2%) girls used to take bath on 3rd day of menstruation. 7 (3.9%) girls were restricted from participating house hold activities like cooking food, serving food etc. 39 (21.9%) girls did not go to school during menstrual period. Only 36 (20.2%) did not observe any restriction during menstruation (Table 6).

Table 6: Taboos observed by study subjects during menstruation (n=157)

| Taboos | No. of adolescent girls | Percentage |
|----------------------------------------|-------------------------|------------|
| Avoided worshipping god during menses | 161 | 90.4 |
| No entry in kitchen for Cooking | 07 | 03.9 |
| Use separate bed for sleeping | 41 | 23.0 |
| Followed untouched during menstruation | 22 | 12.6 |
| Forbidden to attend visitors | 72 | 40.4 |
| Heavy work avoided | 112 | 62.9 |
| Taking bath on 3 rd day | 93 | 52.2 |
| Remain absent from school | 39 | 21.9 |
| No activities forbidden | 36 | 20.2 |

53.7 % girls knew about various contraceptive methods (Table 7). 48.9% girls knew about condom, 17.9% about Cu-T and 15.7% knew about oral

contraceptive pills. 46.3% adolescent girls did not know any contraceptive method. None of these adolescents knew about emergency contraception.

Table 7: Knowledge about various contraceptive methods in adolescent girls (n=178)

| Knowledge about | No. of adolescent girls | Percentage |
|-----------------------------------|-------------------------|------------|
| Barrier methods- condom | 87 | 48.9 |
| I.U.Ds. | 32 | 17.9 |
| Oral Pills | 28 | 15.7 |
| Not known any of the above method | 91 | 51.1 |
| Emergency contraceptive methods | 00 | 00 |

Various complaints during menstruation in these adolescent girls were irritability (44.4%), headache (48.3%), malaise (23.6%), tenderness of

breast (8.9%), dysmenorrhea (25.3%) and irregular menses (54.5%) (Table 8).

Table 8: Complaints during menstruation in the study Subjects (n=178)

| Complaints | No. of adolescent girls | Percentage |
|----------------------|-------------------------|------------|
| Irritability | 79 | 44.4 |
| head ache | 86 | 48.3 |
| Malaise | 42 | 23.6 |
| Tenderness of breast | 16 | 08.9 |
| Dysmenorrhea | 45 | 25.3 |
| Irregular Menses | 97 | 54.5 |
| No Symptoms | 67 | 37.6 |

DISCUSSION

Adolescence in girls has been recognised as a critical period which signifies the transition from girlhood to womanhood and it is characterised by an onset of menarche. Though menstruation is a normal physiological process in existing Indian cultural milieu, it is associated with several myths and misconceptions. This is again complicated by lack of knowledge in the adolescent about menstruation and pubertal changes.

In the present study it was observed that the mean age of menarche in these girls was 13.5 years which is consistent with the findings of the studies conducted by Nair Parvathy *et al.* [1], Shiela W *et al.* [2] and Grover VL [3].

In the present study it was observed that these adolescent girls lacked conceptual clarity about menstruation. Only one third of the adolescent girls were aware about the pubertal changes like enlargement of breast, start of menstrual bleeding, changes in voice and increase in height and weight during puberty. Very few girls knew about appearance of axillary hairs and pubic hairs, development of genital organs, source of menstrual bleeding and ovulation that occur during puberty. These findings are consistent with the results of study conducted by Ahuja A *et al.* [4]. The reason was that they had no prior information about menstruation due to which they faced several problems. This might be due to the fact that there was no teaching program regarding the menstruation for these girls in the schools in rural area. Whatever the knowledge these adolescent have about menstruation, they get it from their friends, relatives and mother and health care workers. Many studies have revealed that mothers, friends and relatives are the main source of providing knowledge about menstruation to the adolescent girls [5, 6]. However it is also seen that the information received from these sources is often inaccurate and incomplete. Similar results were found in many other studies [7, 8].

The reaction to the menstruation depends upon awareness and knowledge about the subject. Rama Rao [9] highlighted the fact that girls with no previous knowledge about menstruation felt more scared about

menarche. Such adolescent then follow wrong practices during menstruation as seen in the present study. Most of the girls use old cloth, cotton wool or dirty cloths as menstrual absorbent. Only 30.9% and 20.8% girls respectively used sanitary napkins and new cloths pieces as absorbent of menstrual blood. 48.9% changed their pads once in a period, 33.9% once in a day while very few adolescent girls i.e. 17.9% changed it depending on situation, 51.1% girls did not even wash their genitalia during bathing. Thus poor hygienic conditions were observed during menstruation amongst these adolescent girls. Drakshayani Devi and Venkata Ramaiah in a study on menstrual hygiene among rural adolescent girls observed that majority of girls were lacking in care and hygiene during menstruation [10]. Similar findings were also observed by Patavegar *et al.* [11]. It is very important to maintain personal cleanliness as a routine and especially during a period of menstruation. The responses received from these adolescent girls revealed that the level of personal hygienic practices followed by them was not up to the mark. Similar types of observations were also recorded by Rajni Dhingra *et al.* [12] in their study on tribal adolescent girls. Poor hygiene during menstruation may lead to reproductive tract infection and urinary tract infection [13].

Restriction of many day to day activities during menstruation was common in our study group which also has been reported by other Indian studies [5, 12]. The rural communities depicted strong web of social and cultural practices during menstruation. There were many social and religious restrictions on girls during menstruation. Restriction particularly related to prohibitions in worshipping god, entry in the kitchen etc are innocuous. Some of the taboos followed during menstruation were i.e. bathing on 3rd day of the menses are harmful. As seen in the present study, 93 (52.2%) girls used to take bath on 3rd day of menstruation. Such type of unhealthy practices and use of dirty clothes during menses, not washing the genitalia adversely affects the health of these adolescent girls and may cause reproductive tract infection.

Now-a-days adolescence and contraception is gaining more importance. Since the knowledge of

contraceptive usage is not only important to prevent unwanted pregnancy but also important to avoid sexually transmitted diseases. In the present study 51.1% adolescent girls did know about any contraceptive methods. None of the girls knew about emergency contraception. The contraceptive knowledge of these girls was very poor. These adolescent girls should be made aware about the contraception since it is very important to preventing sexually transmitted diseases while preventing teen pregnancy. They should also be made aware about emergency contraception. This will help them to safeguard themselves against various infections and unwanted pregnancies. This could further help them to lead a healthy life. The data of the study can be used for planning programmes, making new policies for improving the level of information especially, for tribal adolescent girls.

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