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A CROSS SECTIONAL STUDY OF KNOWLEDGE AND PRACTICES OF ADOLESCENT FEMALES DURING MENSTRUATION IN UMRADA VILLAGE IN SOUTH RAJASTHAN

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ABSTRACT

Background: Background: The onset of menstruation is an important physiological change in adolescent girls. Menstruation is a sensitive and private subject, with long term implications on a woman's life, reproductive and otherwise. The following study was conducted with the objective of studying the behavior and patterns of menstruation during and immediately after menarche, and practices of menstrual hygiene among adolescent girls in Umrada village of South Rajasthan. **Methods:** The study was a community based cross sectional study that was done on a total of 459 girls, from the age group of 9 years to 14 years using a pretested semi structured questionnaire. Consent was taken from the ethics committee of the institute. Statistical analysis was done. **Results:** 338 girls out of 459 (73.71%) attained menarche between 12 to 14 years of age. 354 (77.16%) girls had a cycle that lasted 3-5 days, and 313 (68.19%) girls had a cycle every 28-32 days. 263 (57.28%) girls had absolutely no awareness about menstrual cycle before they achieved it. The most common source of information was found to be mothers (42.72%).150 girls (32.78%) girls exclusively used old clothes to the soak the bleeding. Various social restrictions are placed on menstruating women. **Conclusion:** The status of young adolescent females in the Umrada village of Rajasthan needs vast improvements in terms of knowledge and awareness about menarche, and other aspects of menstruation. Also, sanitary napkins should be made easily available to decrease their reliability on cloth. Education of the community as a whole can help fight the taboo against menstruation.

Key Words: Menstruation, Menarche, Sanitary napkin, Adolescence

INTRODUCTION:

The onset of menstruation is an important physiological change in adolescent girls. It is defined as the initiation of uterine bleeding, and is often marked as a potential entry into sexual relationships and reproduction **(1)**. The first menstruation (menarche) occurs between 11 and 15 years with a mean of 13 years **(2)**.

Globally, it has been observed that different forms of beliefs and perception of menstruation exist, which either negate or promote the adolescent females health. Studies have shown that superstitions, illogical beliefs and misinterpretation are more common than accurate in understanding of the process of

menstruation, menstrual hygiene and self care practices **(3)**. These practices reflect the perception of menstrual blood loss as an 'impure' state and not as a normal human physiological phenomenon **(4)**.

Understanding the status of young menstruating females in India is extremely important because of the taboo associated with it of being an 'impure' time of the month, lack of awareness about intimate hygiene, low socioeconomic status, inadequate water available in rural areas to be used during the time of the month, along with the common occurrence of malnourishment and anaemia in Indian adolescents.

Poor hygiene and inadequate self-care practices are major determinants of morbidity and other complications among this age group **(5)**. Isolation of the menstruating girls and restrictions being imposed on them in the family, have reinforced a negative attitude towards this phenomenon **(6)**. In India, restrictions are laid on young girls from participating in household and other religious activities during menstruation. These restrictions extend to eating certain foods like jaggery and papaya as well **(7)**. Patton and others (1996) in their study found that menarche emerged as the strongest predictor of depression and anxiety among adolescent girls. **(8)** Infections due to lack of hygiene during menstruation have been reported in many studies **(9, 10, 11, 12)**.

The United Nations millennium development goal 2 and 3 directly focused on menstrual hygiene and management for universal education, and on gender equality and women empowerment **(13)**.

Menstruation is a sensitive and private subject, with long term implications on a woman's life, reproductive and otherwise. This and several other vulnerabilities of adolescence make it essential to understand the patterns of behaviour of young women and their families towards menstruation. Also, young girls should be given adequate information through reliable sources to have a trouble free menstrual life, along with access to sanitary napkins and other essentials.

The following study was conducted with the objective of studying the behaviour and patterns of menstruation during and immediately after menarche, and practices of menstrual hygiene among adolescent girls in Umrada village of South Rajasthan.

MATERIAL & METHODS

This study was conducted by Obstetrics and Gynaecology department of Anantha Institute of Medical Sciences, Rajsamand. It was a community based cross sectional study, conducted in the Umrada village of South Rajasthan, which has a population of 4,506. Of this, 2,230 were females (49.48%). 550 girls were in the age group of 9 to 14 years.

Ethical clearance and permission was obtained from the institutional ethical committee. The purpose of the study was explained to the girls and written informed consent was obtained from each participant. For those girls who were under the age of consent, informed verbal consent was obtained from their parents and assent from the students. Confidentiality of information was maintained by omitting any personal identifier from the questionnaire. Girls were informed of their full right to skip or ignore any question or withdraw from their participation at any stage.

Inclusion criteria: A total of 459 girls, from the age group of 9 years to 14 years, were included in the study.

Exclusion criteria: girls who did not achieve menarche by the age of 16 years were not

included in the study. Girls with visual impairment and those who were critically ill and incapable to provide informed consent were also excluded.

The data was collected using a pretested semi structured questionnaire. The questionnaire was prepared in Hindi and English language. Ten girls with high- school education were recruited as data collectors. They were given a day training to familiarize them with the objective and relevance of the study, confidentiality of information, participants' rights and informed consent. They were also trained to explain the questions in the regional language to any participant who had difficulty in understanding the question. Three graduate colleagues from health supervised the data collection procedures. Their supervision, involved reviewing all questionnaires at the end of every day, and morning meetings with the data collectors to discuss any problems they encountered during data collection and provide timely remedy. The questions were mainly about the knowledge about general facts regarding menstruation, and the practices of these girls during and after their period.

Each completed questionnaires was coded on pre-arranged coding sheet by the principal investigator to minimize errors. Data were cleaned and entered into a computer using Epi-info Window version 3.5.1 statistical program. Then the data were exported to SPSS Windows version 20.0 for analysis. The descriptive analysis including proportions, percentages, frequency distribution and measures of central tendency was done.

RESULTS

338 girls out of 459 (73.71%) attained menarche between 12 to 14 years of age. The findings are shown in Figure 1.

Figure 1. Age of menarche

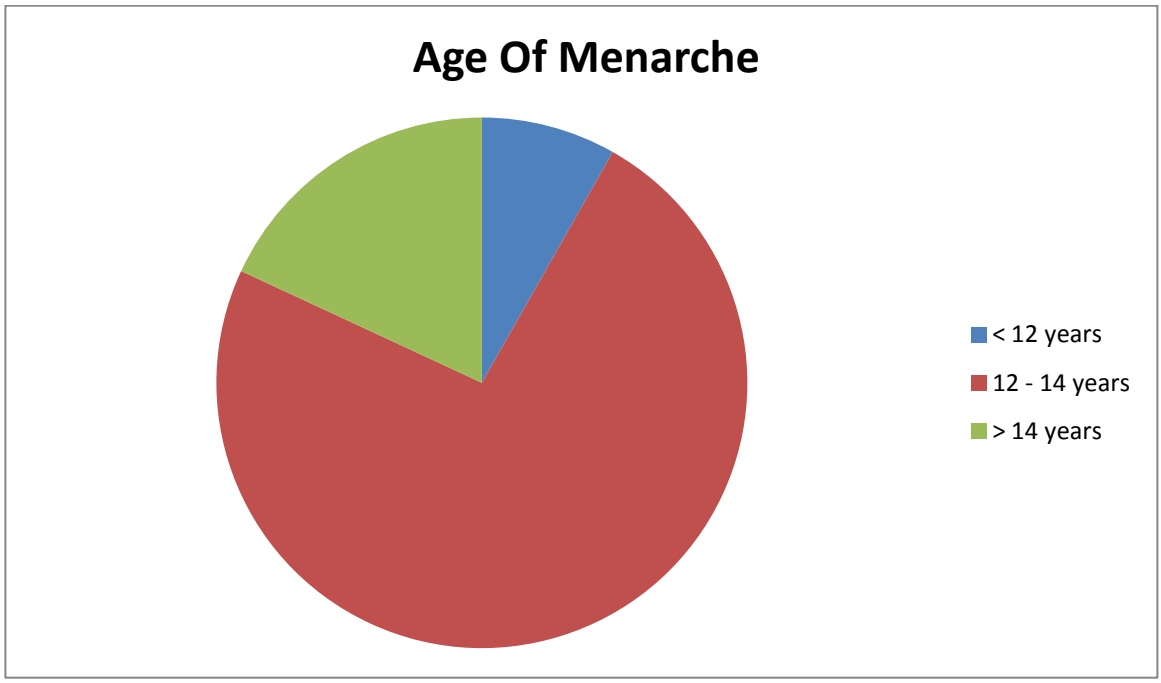


TABLE 1:- DURATION AND LENGTH OF CYCLE (n=459)

DURATION OF FLOW	
<2 days	24 (5.23%)
3- 5 days	354 (77.16%)
>5 days	81 (17.6%)
LENGTH OF THE CYCLE	
<28 days	69 (15.03%)
28-32 days	313 (68.19%)
>32 days	77 (16.77%)

Figure 2: Awareness about Menstrual cycle

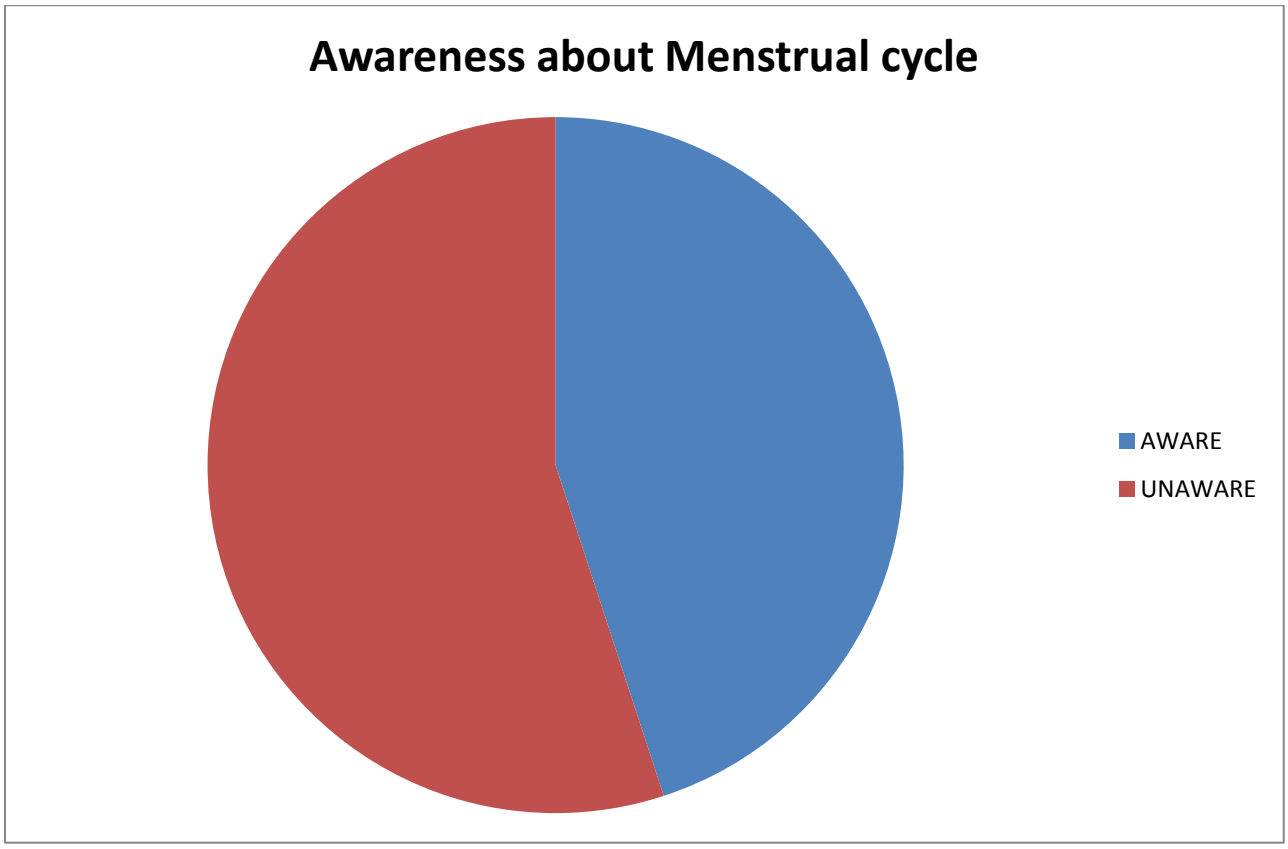
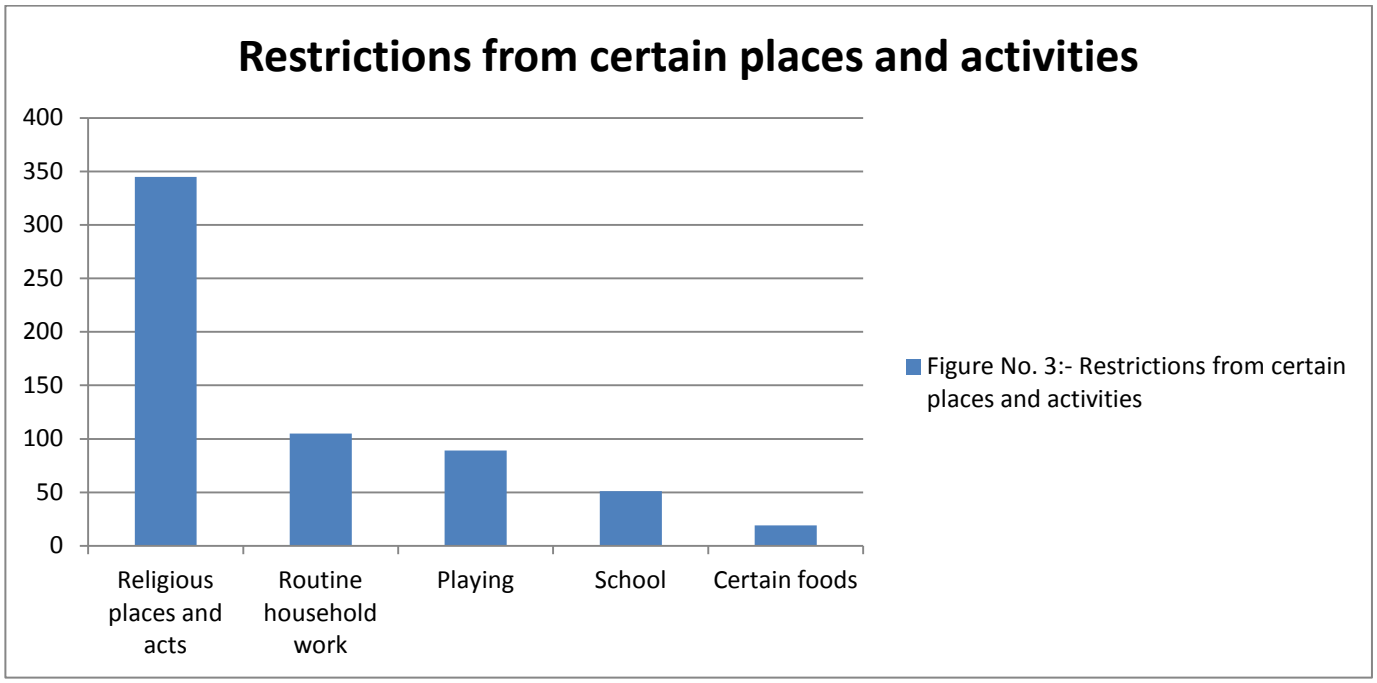


TABLE 2: PRACTICE REGARDING MENSTRUAL HYGIENE

PROTECTION USED	NO. OF GIRLS (n=459)
Sanitary pads	239 (52.02%)
Old clothes	150 (32.78%)
Both	70 (15.02%)

Figure 3: Restrictions from certain places and activities



The length and duration of cycle in the subjects is shown in Table 1. 354 (77.16%) girls had a cycle that lasted 3-5 days, and 313 (68.19%) girls had a cycle every 28-32 days.

333 girls (72.5%) reported normal amount of blood flow. 84 (18.25%) complained of excessive and 42 (9.25%) complained of scanty blood flow.

The presence or absence of awareness about menstrual cycle is shown in Figure 2. 263 (57.28%) girls had absolutely no awareness about menstrual cycle before they achieved it. Out of the girls that demonstrated awareness, the most common source of information was found to be mothers (42.72%), followed by sisters (15.21%) and school teachers (13.4%). Other sources of information were friends, radio and the newspaper.

Regarding the practices of menstrual hygiene, 150 girls (32.78%) girls exclusively used old clothes to the soak the bleeding. The details are given in Table 2.

Figure 3 shows various restrictions placed on menstruating women. The most common is going to the temple and other religious activities and places that 345 (75.2%) girls were prohibited

from. Others include attending school, playing and performing routine household work like cooking and cleaning.

DISCUSSION

The most common age of menarche, as seen in our study, is 12 to 14 years (73.71%). This can be correlated by a study conducted in Gujarat by Prajapati et al that shows the mean age of menarche to be 13.44 ± 1.35 years **(14).** Another study by Thakre et al in Nagaur shows the most common age of menarche to be 13-14 years **(15)**.

In the present study, 77.16% girls had bleeding that lasted for 3-5 days. Similar results (3-5 days of bleeding) were found in 56% girls in a study conducted in Gujarat (14). Our study shows the average length of cycle in majority of girls to be 28-32 days (68.19%). A study done by P.B. Verma et al, in Bhavnagar suggested that mostly the cycles were of 30 days **(16)**. 41.5% adolescent girls had 28-35 days cycle according to the study conducted in Gujarat **(14).**333 girls (72.5%) reported normal amount of blood flow in our study. A study done in Nagpur suggested that only 36.95% of the girls were aware of menstruation before menarche **(18).**

Our study shows that 57.28% girls had absolutely no awareness about menstrual cycle before they achieved it. Such ignorance has been demonstrated in various other studies. In a study conducted in Indore in 2015, 76% of the subjects were not aware of menarche before menstruation.**(17)** About 47.5% girls were found to have pre-menarcheal knowledge regarding menstruation in the study conducted in Gujarat **(14)**.only 36.95% of the participants were aware of menstruation before menarche in the study conducted in Nagpur **(15)**.

Various studies demonstrate that the mother is the most common source of information for most young women. In the present study, 42.72% girls relied on their mothers for information regarding menstruation. In the study conducted in Indore, more than 50% girls received information from their mothers **(17)**. Sisters and school teachers also form a significant pool of source for the information regarding menstruation. Mothers were the first informants for 71.33% of the girls in the study conducted in Nagpur by Thakre et al **(15)**. 55.1% of girls in rural areas relied on their mother followed by around 17% on friends in a study conducted in Rajasthan by Khanna et al **(1).** Education of young mothers, therefore, can show significant improvement in the conditions of their daughters in long term.

Sanitary napkins, being relatively expensive, are not available to a significant proportion of Indian population, especially rural areas. In our study, only 52.02% girls relied exclusively on sanitary napkins. Others used sanitary napkins only occasionally and most other relied on old clothes to soak the bleeding. Sanitary pads were used by 49.35% of the selected girls in the study conducted in Indore **(17)**. 89.5% girls were using cloth during menstruation in the study conducted in Gujarat **(14)**. In a study conducted by Mohite et al in slums, only 12.6% used sanitary napkins **(19).**

It is commonly observed in Indian household that menstruating girls and women are denied access to religious places and sometimes in the kitchen also. 75.02% girls in our study were not allowed in temples in our study. Garg et al. (2001) reported that the vast majority of girls in a Delhi slum continue to experience restrictions on cooking, work activities, sexual intercourse, bathing and religious practice during menstruation **(20)**. Restrictions like these make menstruation more difficult for these young women, as their freedom to discuss their

problems with relevant sources is decreased further.

CONCLUSION

The status of young adolescent females in the Umrada village of south Rajasthan needs vast improvements in terms of knowledge and awareness about menarche, and other aspects of menstruation. Also, sanitary napkins should be made easily available to decrease their reliability on cloth. Education of the community as a whole can help fight the taboo against menstruation.

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