



KNOWLEDGE AND PRACTICES RELATED TO MENSTRUATION AMONG TRIBAL ADOLESCENT GIRLS: A CROSS-SECTIONAL STUDY IN ODISHA, INDIA

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Abstract

Background: Menstruation is a natural happening that is physiologically and psychologically momentous in women's reproductive lives. Knowledge gaps and misconceptions about menstruation may lead to unsafe hygienic practices that increase health risks, which affect their school life. It is more common, especially in rural and tribal areas. Despite such importance, tribal girls' knowledge and hygiene practices towards menstruation are not well addressed in India. Therefore, this study aimed to explore the menstrual hygiene knowledge and practice among tribal students in Koraput, Odisha, India.

Method: A cross-sectional descriptive study was conducted among tribal school students. The sample for the study consisted of 198 girls belonging to tribal in the age group of 13–18 years, recruited by purposive sampling from various schools of Koraput district of Odisha state. Inclusion criteria were those who have menarche and volunteer to participate. A semi-structured questionnaire was used to assess the knowledge and practices related to menstruation among adolescent girls. Simple descriptive analysis was done by using SPSS Ver 20.

Results: The mean age of menarche was 13 ± 1.23 years respectively. Among the study participants, 62% of girls have normal menstrual cycles. Majority (49.4%) of respondents had received information from friends, followed by from mothers (39.8%). 52% use both Cloth & disposable sanitary pads during menstruation. 35% uses only water for cleaning the genital area during menstruation.

Conclusion:

Knowledge about menstruation is poor among tribal adolescent girls and practices are not satisfactory. In this underprivileged, vulnerable tribal group, there is a need to raise awareness about menstrual hygiene, the negative effects of menstrual issues, and the availability of inexpensive sanitary napkins.

Keywords: Adolescent, Menstrual hygiene, practices, knowledge, Tribal school girls, India

Introduction

During the puberty stage, there are notable changes in one's physical, psychological, and cognitive abilities. Menstruation is one indication that a woman is entering puberty. Menstruation is a universal, normal, unique, and physiological phenomenon (1) that women and adolescent girls experience every month, but this topic has been taboo until a date in India (3). Adolescence is an essential period where females are preparing and adjusting themselves to manage their menstrual bleeding in a safe and clean way (3). But in many countries Isolation of the menstruating girls and restrictions imposed on them in the family have reinforced negative attitudes toward this phenomenon in girls (4).

The perception of menstruation is different in different cultures and religions. Several studies have reported restrictions in daily activities such as not being allowed to take bath, change clothes, comb hair, and enter holy places. This gives rise to avoidable anxiety and fear and may also lead to undesirable practices (5)

Studies from many low-income countries exhibited that many girls are not properly prepared and a very high number of girls start menstruating without having any idea of what is happening to them or why (6-8) For this reason, girls in low-income countries report facing stress, confusion, shame, and fear due to a lack of knowledge and poor menstrual hygiene practices. These conditions further impair the daily activities, academic performance, school attendance, and social relationships of adolescent girls (9).

Every year approximately 10 % of women worldwide are exposed to genital infections, including urinary tract infections and bacterial vaginosis, and 75 % of women have a history of a genital infection. Specifically, the common risk factor for vaginal infections includes poor hygiene (10). A study in India reported exclusive use of disposable absorbents was low among young women aged 15-24 (37%) and varied substantially by caste, education, wealth, and residence (11).

Not only this it is also reported that in India, 40% of the girls remained absent from school during their menstruation. This was significantly associated with the type of absorbent used, and lack of privacy at school (12).

Women require access to information, clean absorbent materials, water, sanitary facilities that guarantee privacy, good societal norms, and suitable legislation in order to manage menstruation appropriately and with dignity (13) (14). Girls who receive inadequate preparation before to menarche have unpleasant emotions related to menstruation, including anxiety, bewilderment, and low self-worth (13) (15).

India is a diversified nation where most people reside in rural areas. The tribal population is the most underserved in rural areas. Therefore, the present study focused on indigenous teenage girls. We can better promote a high quality of life by understanding the gaps in awareness connected to menstruation with the aid of data on teenage perceptions and practices.

With this brief introduction, we carried out a survey to learn more about the knowledge, practices surrounding menstruation held by the tribal students in our setting. Additionally, we were aware of their regular menstrual hygiene routines and informed them of their wrongdoings.

Method

Setting & design

A school-based descriptive cross-sectional study was conducted among the high school adolescents' girls of Koraput district of Odisha state. The sample was selected from the 4 major tribes of Koraput district. 4 schools of 4 blocks were selected for the study purpose. Koraput is a tribal district with 1.5 million of population and around 50% of the tribal population with 7 major groups of tribes. All regular

menstruating adolescent girls attending school during the data collection period and who were randomly selected were our study population.

Data collection & Analysis

Data were collected from January 2020 to March 2020. Close ended questionnaire was prepared then translated into local language, as the study site was a tribal area for better understanding, local health worker was approached for data collection. A total 200 were recruited by purposive sampling for the present study, two of them denied for the participation so 198 responses were finally taken. The sample consisted of girls in the age range of 11–18 years and studying in 6th to 10th class. Wherever necessary, significant information and response were provided to the girls. The collected data were entered to EPI-INFO (software) and exported to SPSS version 20 for analysis, simple descriptive analysis was performed.

Ethical consideration

Before the data collection, ethical clearance was obtained from the Institutional Ethical Committee of Sunrise University, Rajasthan, India. Participants have also been informed that there will not be any risk due to their participation, and confidentiality will be maintained. Written informed assent was obtained from the parents of the students.

Results

Socio-Demographic and menstrual Characteristics of Respondents: A total of 198 female adolescents have fully responded, making the response rate of 99%. The mean age at menarche among the school adolescent girls was 13 with a standard deviation of ± 1.23 years (ranging from 9 to 17 years). The majority of the respondents, 89 (49%) were from grade 9th to 10th, 118 (59.6%) belong to the schedule tribe and 139 (70%) belong to Hindu. In about 109 (55.1%) and 135 (68.2%) of respondents, their father and mother have no formal education respectively (Table 1).

Table 1: Socio-Demographic and Menstrual Characteristics of School Adolescent Girls

Variables	Categories	Responses (n=198)	Percentage %
Caste	Schedule Caste	37	18.7
	Schedule Tribe	118	59.6
	Other backward caste	27	13.7
	General	16	8.1
Religion	Hindu	139	70
	Christian	59	30
Fathers' educational status	Has no formal Education	114	57.6
	Primary education	69	34.8
	Secondary or Higher	15	7.6
Mothers' educational status	Has no formal Education	135	68.2
	Primary education	56	28.3
	Secondary or Higher	7	3.5

Source of Information and Knowledge on Menstruation:

It is depicted that a large majority (62%) of girls have normal menstrual cycles, and some (4 %) of them had their periods with longer than usual gaps. It is observed that a majority of females attain puberty at the age of 13 irrespective of the nature of tribe. Almost 162 (81.8%) of school adolescent girls had heard about menstruation before their menarche, but none of the sample girls had complete information about the process of menstruation before they started menstruating.

It was found that 98 (49.4%) of the respondents had received information from friends, followed by from mothers 79 (39.8%). More than half 121 (61.1%) of adolescents freely discuss menstrual issues with their parents, especially with their mothers and elder sisters.

It is found that 155 (78.2%) of the study participants knew about the duration of menstruation and almost 111 (56%) of the girls knew about the normal duration of the menstrual cycle. The majority 160 (80.8%) of them knew the causes of menstruation as a physiologic process and 79 (39.8%) adolescents knew as menstrual blood is from the uterus. More than half of the study participants (57%) have a good overall knowledge about menstruation (Table 2).

Table 2 Source of Information and Knowledge on Menstruation Among School Adolescent Girls (n=198)

Variables	Categories	Number (N=198)	Percentage (%)
What is menstrual cycle	Yes	135	68
	No	63	32
Prior - information	Aware	162	81.8
	Partially aware	24	12.1
	Unaware	12	6.1
Source of information about menstruation before menarche	Mother	79	39.9
	Teachers at school	18	5.1
	Health personnel	67	2.0
	Friends	98	49.5
	Others (Media/internet)	7	3.5
Freely discuss menstruation issues with parents	Yes	121	61.1
	No	77	38.9
Knew the normal menstrual bleeding duration	Yes	111	56
	No	87	44
Knew the normal duration of the menstrual cycle	Yes	155	78.2
	No	43	21.8
Causes of menstruation	Physiologic process	160	80.8
	Pathological process	23	11.6
	Is a curse of God	13	6.6
	I do not know	2	1.0
Source of menstrual blood	Uterus	79	39.9
	Vagina	96	48.5
	I do not know	5	2.5
	Bladder or abdomen	18	9.1
Knew that menstrual blood is unhygienic	Yes	139	70.2
	No	59	29.8
Good overall knowledge about menstruation	Yes	113	57
	No	85	43

Menstrual Hygiene Management Practices Among School Adolescents

The majority of respondents 103 (52%) use both Cloth & and disposable sanitary pads during menstruation and 67 (34%) use Disposable sanitary pads. More than half of the study participants used soap and water for cleaning the genital area during mensuration followed by only water (35%), whereas 8 (4%) of them used cloths to wipe and clean the genital area. Nearly three-fourths of the respondents 143 (72%) of the respondents wash their genitals twice or more during menstruation. Only 65 (31%) of the girls take a bath twice or more than twice a day during their menstruation cycle. Around 63% of the students are changing sanitary materials 1-2 times a day followed by 46 (23%) three times a day. Only 19% of the respondents were aware of the proper disposal of the used menstrual materials. To be surprising 47% of the study participants changed their menstrual absorbents inside the house whereas 34% of the respondents are in cattle sheds and only 3.7% changed in the toilet. One-fourth of the respondents have overall adequate MHM practices

Table 3 Menstrual Hygiene Management Practices During Menstruation Among School Adolescent Girls (n=198)

Variables	Categories	Number (N=198)	Percentage (%)
	Disposable sanitary pads	67	34

Menstrual absorbents materials used during menstruation	Reusable Cloth	28	14
	Mixed (Clothes & sanitary Pads)	103	52
Genital cleaning material used during menstruation	Only Water	69	35
	Soap and water	117	59
	Cloth	4	2
	Not used any	8	4
Washing genitalia twice or more times per day during menses	Yes	143	72
	No	55	28
Taking ≥ 2 baths during menstruation per day	Yes	61	31
	No	139	70
Frequency of changing sanitary material during menses per day	Could not change it	28	14
	1 to 2 times	125	63
	Three times or more	46	23
Proper disposal of used menstrual hygiene materials	Yes	38	19
	No	160	81
Place of changing of menstrual absorbents	Toilet	7	3.7
	House	93	47
	Cattle shed	67	34
	Bushes/others	38	19
Overall adequate MHM practiced	Yes	57	29
	No	141	71

Discussion

The natural changes that take place in the uterus and ovaries are linked to changes in the physical, psychological, and social aspects of a woman's life; the menstrual cycle is a valid predictor of the changes that occur during adolescence (16). For the majority of the study subjects, menarche occurs at the age of 14. Consistent with our research, previous studies have also documented that the average age at menarche was 13–14 years old in a variety of communities (rural, urban, and tribal) throughout the nation (17)(18)(19).

Almost 162 (81.8%) of school adolescent girls had heard about menstruation before their menarche, but none of the sample girls had complete information about the process of menstruation before they started menstruating, which was higher than the findings of the study on North Indian University students (65%) (20). Information about their menstrual practises and level of knowledge is useful when designing programmes to raise people's awareness of life's processes and enhance their quality of life.

Menstrual hygiene is a taboo topic that many South Asian women find awkward to talk about. Adolescent girls adhere to a wide range of cultural and religious traditions. A study conducted in Ranchi found that a number of factors, including education, family environment, culture, and belief, influence menstrual practises (8). Friends were the most frequent source of information problems 49.5%, followed by the mother is 39% and very few accessed information from social media (5%). The girls received erroneous and inadequate information from a restricted number of sources, which is the cause of their health issues and complaints. Numerous studies have shown that the primary sources of information about menstruation for teenage girls are their mothers, teachers, friends, relatives, television, and books (21) (22).

According to the study, the majority (54%) of girls used both sanitary napkins and clothes as absorbents for their periods. This is in line with previous studies findings, which showed that people significantly preferred using their both clothes and sanitary napkins as menstruation absorbents over sanitary pads (1) (23). Additionally, a Rajasthani study found that only one-fifth of the girls reported using sanitary napkins during their menstrual cycle, while three-fourths of the girls reported using old clothes (24). The current study also found that a significant portion of study participants who used cloths as menstrual absorbent changed them only once a day and that most of them only used water to clean them. Due to the taboo surrounding menstruation, only a small portion of these girls practised good hygiene, which includes drying menstrual cloth in the sun and storing it in a hygienic location for later use.

When it came to cleaning their external genitalia during menstruation, most study participants would most often use water. Concerns over poor washing drying and keeping conditions were highlighted in previous studies as well (25).

This study revealed that 63% of girls changed sanitary material during menses 1-2 times a day, which is also similar to the other study conducted (26). Additionally, it's critical to keep the genital area clean. Cervical cancer risk may increase if the perineal area is not regularly cleaned during menstruation, according to research (27).

Conclusions

Tribal girls are discouraged from asking parents and teachers for advice on proper MHM practices because of taboos, shame, and secrecy surrounding the subject of menstruation. The menstrual hygiene practices of Odisha, India's tribal girls are far from adequate. Due to a lack of information, accessibility, and budgetary limitations, the majority of them are unable to use sanitary napkins. They are also prone to menstrual issues. Girls are using both sanitary napkins and clothes, as they are getting from the school. For low-income tribal girls, the government's efforts to provide inexpensive sanitary napkins through initiatives like Rashtriya Kishor Swasthya Karayakram (RKSK) seem to be yielding less than ideal results. In order to encourage these difficult-to-reach PVTGs to use MHM, more should be done to inform them of its importance and to provide them with free sanitary napkins.

Data Sharing Statement: The datasets used in the current study can be accessed from the author upon reasonable request.

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

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