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A CROSS SECTIONAL STUDY ON MENSTRUAL HYGIENE & PERCEIVED REPRODUCTIVE MORBIDITY AMONG ADOLESCENT GIRLS IN GOVT. GIRLS HIGH SCHOOL, JAMNAGAR, GUJARAT.

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ABSTRACT

Background: Menstruation is a milestone events in a girl's life. Large number of girls has lack of knowledge & poor sanitation practices about menstruation has been associated with serious ill health ranging from genital tract infection, urinary tract infection & bad odor. Objectives: to explore the knowledge, attitude & practices about menstrual hygiene & perceived reproductive morbidity among adolescent girls in govt. girls high school in Jamnagar, Gujarat. **Methods:** It was school based cross sectional study in govt. girls high school, Jamnagar, Gujarat from July to August 2019. By using multistage random sampling technique, Total 181 adolescents school girls 12-18 years of age groups studying in 9th – 12th classes were taken. Data were collected using a predesigned, pretested, structured proforma by personal interview method after having informed written consent. **Results:** only 48.06% of respondents were aware of menstruation before attaining menarche; 71.27% and 38.67% were known about the cause and source of the menstrual bleeding, respectively; 77.90% used only sanitary pads whereas 22.09% used both old clothes and sanitary pads as the absorbents. Unsatisfactory cleaning of the external genitalia was practiced by 11.60% of respondents. Higher prevalence of dysmenorrhea (69.61%) was mentioned by the respondents; 24.86% reported excessive genital discharge. Statistically significant association was found between perceived reproductive morbidity and poor menstrual hygiene practices. About 88.39% of the study population reported any one of the reproductive morbidity, and only 33.14% sought for medical treatment from a health facility. **Conclusion:** The present study has underscored the necessity of adolescent girls to have adequate and precise knowledge about menstruation before menarche. Menstrual pain is a very common problem reported by majority of adolescent girls which points out the need for suitable intervention through lifestyle modification. Reproductive tract morbidities which can devastate a women's life is directly linked with poor menstrual hygiene practices.

KEYWORDS

Menstrual hygiene, Menstruation, Adolescent school girls, Reproductive morbidity

INTRODUCTION:

Menstruation is a milestone event in a girl's life and the beginning of reproductive life. Large number of girls has scanty knowledge about menstruation until is not frequently talked off in homes[1]. Being an important sanitation issue which has long been in the closet, still, there is a long-standing need to openly discuss it. Most of the time adolescent girls are unprepared – in terms of knowledge, skills, and attitudes for managing the menstrual cycle[2] This lack of knowledge and poor personal sanitary practices during menstruation has been associated with serious ill-health ranging from genital tract infections, urinary tract infections, and bad odor[3-5].Unhealthy menstrual practices are not washing genitalia regularly, using unclean cloth, etc. Learning about menstrual hygiene forms a vital aspect of health education among menstruating women to avoid future long-term ill effects of poor menstrual hygiene practices leading to premature births, stillbirths, miscarriages, infertility problems, carcinoma cervix as a complication of recurrent reproductive tract infections[6] . Research indicates that a vast information gap exists among adolescent girls regarding prior awareness about menstruation and menstrual hygiene which do have an impact on the practices during menstruation[1] and the associated gynaecological morbidities. Hence, the present study was done to estimate the magnitude of perceived gynecological morbidities as well as to find out the relation between the knowledge, attitude, and practices (KAP) about menstruation.

MATERIALS & METHODS:

It was school based cross sectional study in govt. girls high school, Jamnagar, Gujarat from July to August 2019. By using multistage random sampling technique, Total 181 adolescents school girls 12-18 years of age groups studying in 9th – 12th classes were taken. Consent from the directorate of school education and from the head of govt, girls high school, Jamnagar, Gujarat was taken before conducting the study. A consent form was given to each student who was involved in the study and was asked get it signed from their parents. All the eligible students in the govt. girls high school, Jamnagar who were meeting the criteria were considered for the study. Following that data were collected by interview method using a predesigned pretested, structured proforma. The proforma was used to collect data regarding their socio-demographic profile, symptoms and imposed restrictions, knowledge, and perceptions regarding menstruation, perception regarding advantages and disadvantages of sanitary napkins, hygiene during menstruation, and reproductive morbidities. confidentiality was maintained for the data collected throughout the study.

RESULTS:

study of 181 adolescent girls, 77 (42.5%) girls were the age of 15 years followed by 50 (27.6%) girls were the 16 years of age; about 174 (96.1%) girls were Hindus; 150 (82.8%) girls coming from nuclear families. The majority 102 (56.3%) of the girls coming from lower middle-class families followed by the middle class 36 girls (19.8%) as per modified BG Prasad scale 2015. Table 1 shows that about 71.27% of respondents knew that the menstruation is a natural physiological process and only 38.67% knew that the source of menstrual blood is uterus. The sanitary pad was mentioned as ideal absorbent by 95.58% of the study population. Unsatisfactory cleanliness of external genitalia was reported (frequency of washing external genitalia was < 2/day) by 21 (11.60%) girls. So far practices were concerned, 77.90% girls were using sanitary napkin whereas 22.09% girls were either cloth or mixed users during menstruation. The majority (85.08%) were changing the absorbent 2–4 times during the menstruation. Most of the girls were disposing the absorbent by burning (64.64%) followed by public dustbin (19.88%). Among cloth users, many were drying it inside the house without sunlight (7.73%). Majority washed their genitalia using only water (53.59%) during menstruation. Table 2 shows that 66.85% of respondent girls perceived that on using sanitary pads they felt comfortable, 49.72% perceived that it would not stain clothes, 34.25% felt that it absorbed adequately whereas 24.30% felt that there was no itching with its use. On the other hand, 33.70% adolescent girls don't know about disadvantages of sanitary napkins and 28.17% felt that it was not available everywhere. 27.07% adolescent girls felt that the advertisement about sanitary napkins was useful while 14.36% felt it embarrassing and 12.70% as not useful. Table 3 shows that 88.39% respondents reported having at least one reproductive tract problem. The commonly reported reproductive morbidity were symptoms of lower abdominal/lower back pain (69.61%), discharge from genitalia (24.86%), itching from genitalia

(22.09%), difficulty in micturition (20.44%), and pustules over genitalia (13.81%). Out of the 160 (88.39%) adolescent girls who perceived any reproductive tract morbidity only 66 (41.25%) received treatment for these health problems. Some of the symptoms suggestive of reproductive tract infections were observed to be more common among the girls who were having unsatisfactory menstrual hygiene practices, and this difference was found to be statistically significant ($P < 0.05$) for itching in genitalia and discharge from genitalia.

DISCUSSION:

In this study, only 48.06% of the study population had knowledge regarding menstruation before menarche which was almost corroborative with the findings by Verma *et al*. where 58.3% girls had reported having prior knowledge about menstruation.[7] More than half of the adolescent girls were unaware about menstruation before menarche. Ideally, every girl child must be aware of menstruation before menarche which will have a long role in maintaining the menstrual hygiene and preventing its related morbidities. About 71.27% of the girls believed that menstruation is a natural phenomenon which was fairly similar to the observation by Verma *et al*. where 85.83% of girls believed it to be a natural phenomenon.[7] It was evident that a majority of girls in the study (60.77%) were not aware of the correct source of menstrual bleeding which was in line to a study by Pundkar *et al.* where 70.71% girls did not know the source.[8] This study showed that majority of the girls use only sanitary napkin (77.90%) as menstrual absorbent rather than cloth pieces. Only 22.09% girls used both cloth and sanitary napkins. This was in contrary to the study conducted in West Bengal by Dasgupta and Sarkar[3] and in Tamil Nadu by Balamurugan *et al*.[9] where the majority of girls (>50%) preferred using clothes to sanitary napkin. Water and soap (63%) were the most common agents used for cleaning genitalia in a study conducted by Pundkar *et al*.[8] whereas in the present study the most common agent was only water (53.59%) followed by soap and water (46.40%). Pundkar *et al*.[8] also showed that satisfactory cleaning of external genitalia was reported by 97% of girls which was almost similar to our study where it was reported by 88.39% of girls. In the present study, the commonly practiced method of disposing the absorbent was burning similar to the findings by another author.[8] The prevalence of dysmenorrhea in our study was found to be 69.61% whereas it ranged from 60% to 93%[10] in Multan city, Pakistan and 62%–65% in India as reported from East Delhi[11] and Karnataka.[12] Even in India, a study conducted among young girls in Indore by Kural *et al.* had observed 84.2% prevalence of dysmenorrhea.[13] In our study, excessive discharge from genitalia (probable respiratory tract infections) had been reported by 24.86% of adolescent girls, itching in genitalia by 22.09% and difficulty in micturition by 20.44% girls. These were almost similar to the findings reported by Juyal *et al*.[2] (19% vaginal discharge and 7.9% itching in genitalia) and Ram *et al.* (12% burning sensation).[14] This is due to the fact that discussing menstrual hygiene is considered as taboo subject in India[2] which hinders women and girls from getting treatment on time. Out of 160 girls who reported any one of the reproductive morbidity, only 66 (41.25%) of girls sought medical treatment from a health facility. This is similar to a study conducted at Nagpur by Kulkarni and Durge where girls seeking and not seeking health care was 33.67% and 62.33%, respectively.[15] In spite of a high prevalence of reproductive morbidities among adolescent girls, there is a low treatment seeking behavior from health care.

CONCLUSION:

The present study has underscored the necessity of adolescent girls to have adequate and precise knowledge about menstruation before menarche. Menstrual pain is a very common problem reported by majority of adolescent girls which points out the need for suitable intervention through lifestyle modification.

Reproductive tract morbidities which can devastate a women's life is directly linked with poor menstrual hygiene practices. The girls should be made aware of the facts of menstruation and proper hygienic practices through mass media, school curriculum and school teacher, health personnel and above all, well-informed parents. Health camps in schools need to be conducted to treat the girls suffering from reproductive tract morbidities.

Table 1: Knowledge and practices of the adolescent girls regarding menstruation (n =181)

Knowledge about menstruation n(%)	
Premenarchial knowledge about menstruation	87 (48.06)
Cause of menstruation	
Natural	129(71.27)
Curse from god	12 (6.62)
A disease	6 (3.31)
Due to weight gain	1 (0.55)
Don't know	33 (18.23)
Source of menstrual blood	
Uterus	70 (38.67)
Urinary bladder	8 (4.41)
Vagina Abdomen Kidney Don't know	6 (3.31). 4 (2.20) 92 (50.82) 1 (0.55)
Practices regarding menstruation	
Absorbent used	
Sanitary napkin only	141(77.90)
Cloth/mixed	40 (22.09)
Number of times, the absorbent being changed	
Once	4 (2.20)
2-4 times	154 (85.08)
5-6 times Disposal of absorbent Bathroom/toilet Bury in ground Public dustbin With domestic waste Burning Place of drying of absorbent	23 (12.70) 10 (5.52) 16 (8.83) 36 (19.88) 2 (1.10) 117 (64.64)
Not applicable Inside with sunlight Inside house without sunlight Outside house with sunlight Outside house without sunlight Agents used for cleaning of genitalia	141 (77.90) 9 (4.97) 14 (7.73) 8 (4.41) 9 (4.97)
Water Water and soap Frequency of washing genitalia	97 (53.59) 84 (46.40)
>2/day <2/day	160 (88.39) 21(11.60)

Table 2: Perception regarding advantages and disadvantages of sanitary napkins (n=181)

Perception about sanitary napkins	n=(%)	
Advantages		
Comfortable	121	(66.85)
Adequate absorption	62	(34.25)
Do not stain clothes	90	(49.72)
No itching	44	(24.30)
Don't know	29	(16.02)
Disadvantages		
Expensive	104	(8.80)
Not available everywhere	51	(28.17)
Don't know	61	(33.70)
Perceptions about the advertisements regarding sanitary napkins		
Useful	49	(27.07)
Not useful	23	(12.70)
Embarrassed	26	(14.36)
No comments	83	(45.85)

Table 3: Distribution of study population according to perceived reproductive morbidity and treatment received (n=181)

Reproductive morbidity	n (%)	
Symptoms		
Any symptoms	160	(88.39)
Discharge from genitalia	45	(24.86)
Itching in genitalia	40	(22.09)
Pustules over genitalia	25	(13.81)
Pain in lower abdomen/lower back	126	(69.61)
Difficulty in micturation	37	(20.44)
Treatment received		
Not applicable	21	(11.60)
No action taken	31	(17.12)

Medication from medical store	6	(3.31)
Private practitioner	14	(7.73)
Government hospital	46	(25.41)
Home remedy	63	(34.80)

Table 4: Association between perceived reproductive morbidity and menstrual hygiene practices (n=181)

Symptoms	Menstrual hygiene practices		Total (n=181)	$\chi 2$ (chi square)	P value
	Satisfactory (n=149)	Unsatisfactory (n=32)			
Discharge from genitalia	26	1	27	4.258	0.039
Itching in genitalia	17	9	26	5.983	0.014
Pustules over genitalia	10	4	14	1.236	0.266
Pain in lower abdomen/lower back	76	15	91	0.179	0.671
Difficulty in micturition	20	3	23	0.389	0.532

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