

Behavioral changes in Menstrual hygiene management practices: Role of structured teaching program on menstrual hygiene

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ABSTRACT

The aim of the present study was to identify the prevailing menstrual hygiene practices and effectiveness of health education program on menstrual hygiene among adolescent girls in selected high school. A quasi-experimental study was conducted with a sample of 62 students. A planned health education program was conducted among high school girls in a selected rural area. Pre-test questionnaire was administered regarding the practices of menstruation. After a gap of one month post-test questionnaire was administered. The study revealed that there were adequate improvement in practices during post-test, like majority of girls 98.4%(61) change pads regularly (Once in 4-5 hours), 98.4%(61) are washing their genitalia regularly during menstruation, 90.3% (56) are touching plants during menstruation, 79%(49) are touching domestic animals, 80.7% (50) are wearing new clothes during menstruation, 37.1% are attending functions, 75.8% (47) are using market available sanitary pads, 56.5% (35) are disposing used pads in public dust bins, 72.5% (42) are wrapping used pads with paper before disposing off, 58% (36) are allowed to touch water resources during menstruation, 87.1% (54) are taking head bath on first day of menstruation, 77.4% (48) are attending school during menstruation, 58.1% (36) are practicing purifying with sacred water after menstrual cycle, 92% (57) are not practicing food restrictions, 96.8% (60) are sharing their menstrual problems with mother/teachers, 98.4% (61) are sharing their feelings with friends.

INTRODUCTION

High school is an adolescent age group, where majority of girls attain menarche during this period. As menstruation occurs, these adolescent girls need to be given health information related to menstruation, its hygiene and management. In a country like India, menstruation is felt as a sensitive issue and discussion is not encouraged. Majority of girls get information related to menstruation from mothers. Both good and bad practices are transmitted from mothers to daughters. Many studies concluded that even mothers do not have adequate knowledge related to menstruation and they are transmitting incorrect information, there by affecting the reproductive health of the adolescent girls. Mothers' attitude and practices are guided by cultural taboos and beliefs, transferring from generation to generation. Unhealthy practices like infrequent change of pads, prolonged usage of same pad, not taking bath during menstruation lead to risk of infection. Along with the physical problems, adolescent girls are emotionally disturbed because of social restrictions, isolation, lack of privacy, inadequate provision for safe practices or disposal of sanitary napkins, lack of proper latrines etc.

It was reported in a study by Sarah et.al (2012) that failing to provide disposal facilities for used sanitary pads or clothes can result in a significant solid waste issue, with latrines becoming blocked and pits filling quickly. She also reported that many schools do not support adolescent girls or female teachers in managing menstrual hygiene with dignity. Poor sanitary protection materials can result in blood stained clothes causing stress and embarrassment. Due to these reasons, girls have been reported to miss school during their menstrual

periods or even drop out completely.6 Lloyd et.al, reported poor management of normal, healthy menstruation contribute to school absenteeism and may contribute to other forms of social exclusion.3

Meseret Abay F (2017) stated that different studies reported that good menstrual hygiene practices were associated with factors like literate parents, premenstrual preparation, students in secondary school and above, exposure to advertisement regarding usage of sanitary pads in mass media and socioeconomic status of the family.4

OBJECTIVES

- ✓ To compare the menstrual hygiene practices among adolescent girls during pre-test and post-test.
- ✓ To find out the effectiveness of structured teaching program regarding menstrual hygiene among adolescent high school girls.

LIMITATIONS

- ✓ The study is limited to only rural high school.
- ✓ The study included only selected high school girls.

METHODOLOGY

Research Design: A quasi-experimental study design with one group pre-test and post-test was used for conducting the present study.

Sample: A sample of 62 adolescent high school girls were selected among 8th, 9th and 10th class students.

INCLUSION CRITERIA

- Both the students who attained and who did not attain menarche.
- Adolescent girls willing to participate in the study.
- Exclusion criteria:
- Adolescent girls who are not willing to participate in the study.
- Adolescent girls who are not present at the time of data collection.

Method of data Collection: A self-reported questionnaire was prepared in consultation with experts and review of literature. A pre-test was conducted to collect data pertaining to menstrual practices. Structured teaching program was conducted and with a gap of one month post-test was conducted.

DESCRIPTION OF THE TOOL

Section-1: It includes demographic data of the subjects.

Section-2: It includes the various practices regarding menstrual hygiene. The subject needs to mark the practices that are applicable to them. Each item has three responses like ‘Yes’, ‘No’ and ‘not sure’.

Data Collection Procedure: The students were given information regarding the study being conducted; oral consent was obtained from the students. Written permission was obtained from the Principal of the high school.

Data Analysis: Data was analyzed using descriptive and inferential statistics like frequency, percentage and chi-square.

RESULTS

Frequency and Percentage distribution of Demographic Variables

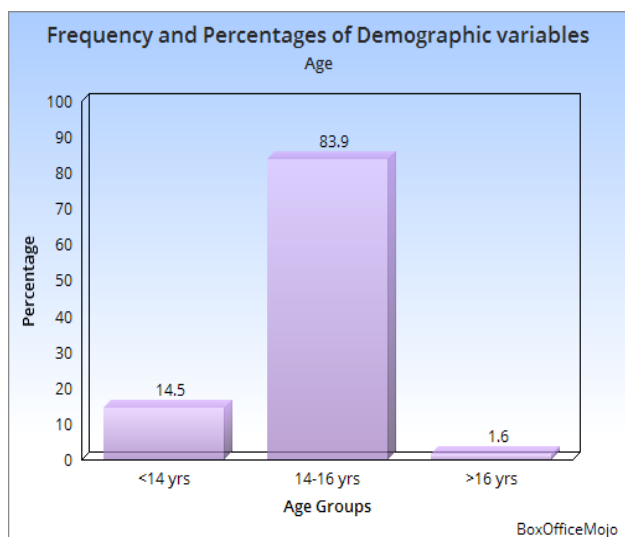


Fig-1: Frequency and percentage distribution according to Age

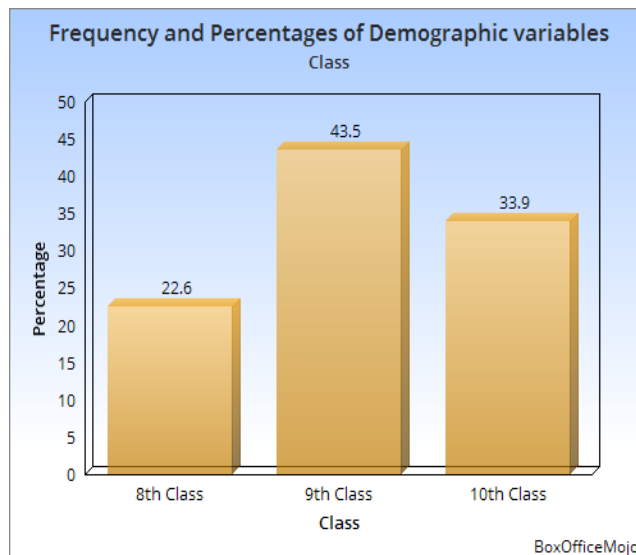


Fig-2: Frequency and percentage distribution according to Class

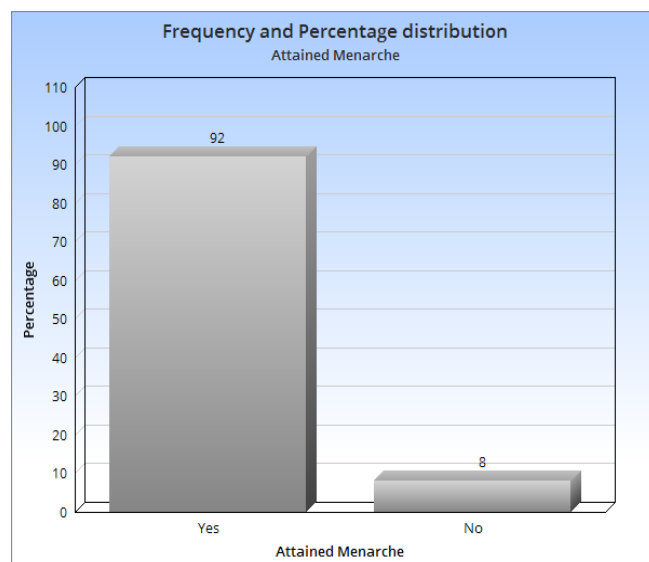


Fig-3: Frequency and percentage distribution according to Attained

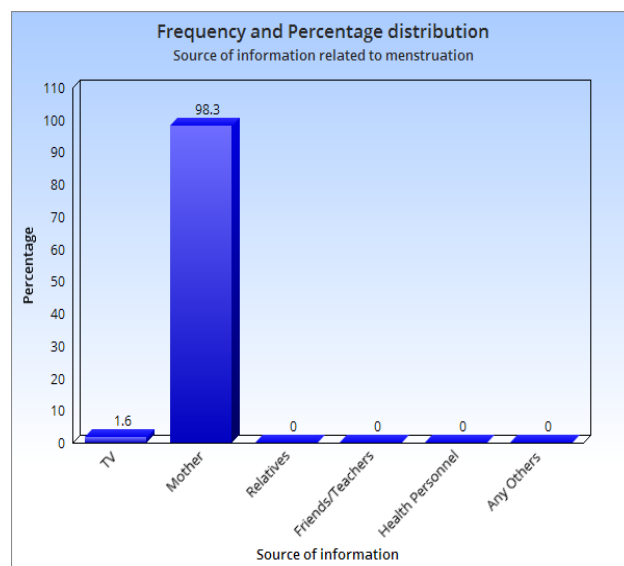


Fig-4: Frequency and percentage distribution according to Source of information related to menstruation.

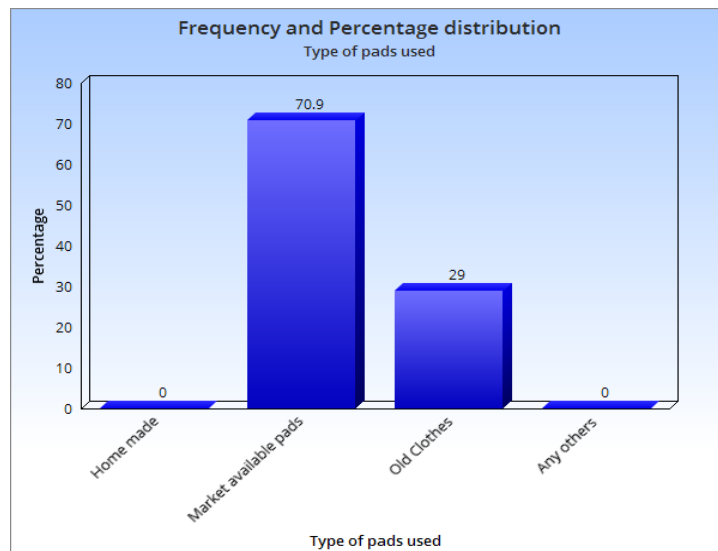


Fig-5: Frequency and percentage distribution according to Type of pads used.

Tab-1: Comparison of Pre-test and Post-test of Menstrual hygiene practices (N=62)

S. No	Practices	Pre-Test						Post-Test					
		Yes		No		Not sure		Yes		No		Not sure	
		n	%	n	%	n	%	No	%	No	%	No	%
1	Change pads regularly.(Once in 4-5 hours)	48	77.4	8	12.9	6	9.7	61	98.4	1	1.6	0	0
2	Washing genitalia regularly during menstruation	55	88.7	1	1.61	6	9.7	61	98.4	1	1.6	0	0
3	Staying separately from family members during menstruation	52	83.8	5	8.06	5	8.1	52	83.9	10	16.1	0	0
4	Touching others during menstruation	32	51.6	25	40.3	5	8.1	32	51.6	30	48.4	0	0
5	Touching plants during menstruation	23	37.1	34	54.8	5	8.1	56	90.3	6	9.7	0	0
6	Touching domestic animals during menstruation	42	67.8	10	16.1	10	16.1	49	79.0	13	21.0	0	0
7	Wearing new clothes during menstruation	11	17.7	45	72.6	6	9.7	12	19.4	50	80.7	0	0
8	Attending functions during menstruation	16	25.8	40	64.5	6	9.7	23	37.1	39	63.0	0	0
9	Using market available sanitary pad	25	40.1	30	48.9	7	11.1	47	75.8	15	24.1	0	0
10	Disposing the used sanitary pads in public dustbins	28	45.2	25	40.3	9	14.5	35	56.5	27	43.5	0	0
11	Wrapping the used sanitary pad with paper before discarding	28	45.2	33	53.2	1	1.6	45	72.5	15	24.2	2	3.2
12	Allowed to touch water sources during menstruation	33	53.2	17	27.4	12	19.4	36	58.0	26	41.9	0	0
13	Taking head bath on first day of menstruation.	38	61.3	12	19.4	12	19.4	54	87.1	8	13.0	0	0
14	Attending school during menstruation.	37	59.7	19	30.6	6	9.7	48	77.4	14	22.6	0	0
15	Practicing eating separately during menstruation	37	59.7	19	30.6	6	9.7	37	59.7	25	40.32	0	0
16	Practicing purifying with sacred water after menstrual cycle.	38	61.3	19	30.6	5	8.1	36	58.1	26	41.9	0	0
17	Following food restriction during menstrual cycle	41	66.1	14	22.6	7	11.3	5	8.1	57	92.0	0	0
18	Sleeping on floor during menstruation.	38	61.3	19	30.6	5	8.1	38	61.3	19	30.6	5	8.1
19	Sharing menstrual problems with mother/teacher	33	53.2	22	35.5	7	11.3	60	96.8	2	3.2	0	0
20	Sharing feelings about menstruation with friends	34	54.8	23	37.1	5	8.1	61	98.4	1	1.6	0	0

Tab-2: Effectiveness of Structured teaching program on Menstrual hygiene practices (N=62)

S.No	Practices	Pre-test			Post-Test			Chi-square	p-value
		Yes	No	Not sure	Yes	No	Not sure		
1.	Change pads regularly. (Once in 4-5 hours)	48	8	6	61	1	0	12.995	0.001*
2.	Washing genitalia regularly during menstruation	55	1	6	61	1	0	6.310	0.043*
3.	staying separately from family members during menstruation	52	5	5	52	10	0	8.383	0.015*
4.	Touching others during menstruation	32	25	5	32	30	0	5.455	0.07
5.	Touching plants during menstruation	23	34	5	56	6	0	38.385	0.000*
6.	Touching domestic animals during menstruation	42	10	10	20	42	0	6.726	0.035*
7.	Wearing new clothes during menstruation	11	45	6	12	50	0	6.307	0.043*
8.	Attending functions during menstruation.	16	40	6	23	39	0	7.269	0.026*
9.	Using market available sanitary pad	25	30	7	47	15	0	18.722	0.0001*
10.	Disposing the used sanitary pads in public dustbins.	28	25	9	35	27	0	9.855	0.007*
11.	Wrapping the used sanitary pad with paper before discarding	28	33	1	45	15	2	11.042	0.004*
12.	Allowed to touch water sources during menstruation	33	17	12	36	26	0	14.014	0.0009*
13.	Taking head bath on first day of menstruation.	38	12	12	54	8	0	15.583	0.0004*
14.	Attending school during menstruation.	37	19	6	48	14	0	8.181	0.017*
15.	Practicing eating separately during menstruation	37	19	6	37	25	0	6.818	0.0331*
16.	Practicing purifying with sacred water after menstrual cycle.	38	19	5	36	26	0	6.143	0.047*
17.	Following food restriction during menstrual cycle	41	14	7	5	57	0	61.216	0.000*
18.	Sleeping on floor during menstruation.	38	19	5	38	19	5	0.000	1.0000
19.	Sharing menstrual problems with mother/teacher	33	22	7	60	2	0	12.264	0.002*
20.	Sharing feelings about menstruation with friends	34	23	5	61	1	0	32.840	0.000*

DISCUSSION

The present study identified very interesting facts regarding the menstrual hygiene practices. During pre-test, majority of students 88.71% (55) changed pads regularly once in 4-5 hours, which changed to 98.4% (61) during post-test. These findings are different to Oche M.O.et.al that 11% of girls in Ethiopia and 60% of girls in India only change their menstrual cloth once in a day.⁵

During pre-test, majority of girls, 88.7% (55) are washing genitalia regularly during menstruation and during post-test, the percentage increased to 98.4% (61). These findings are contradictory to the study findings that 84% of girls in Afghanistan never wash their genital area as reported by Sarah et.al.⁶

It was observed that during pre-test, majority of students, 83.9% (52) are staying separately from family members during menstruation. During post-test also the percentage of majority of students, 83.9% (52) did not change. This can be attributed to the cultural practices in Andhra Pradesh, that menstruating women are restricted to stay alone and do not mingle with family during menstruation.

Majority of students, 51.6% (32) during pre-test touch others during menstruation and there was no change during post-test percentage that is 51.6% (32). It is a common practice in Andhra Pradesh that women and girls are not allowed to touch others during menstruation. So it is very difficult to change these cultural practices within a month.

In the present study during pre-test, majority of students, 54.8% (34) do not touch plants during menstruation. But during

post-test, majority of students, 90.3% (56) were touching plants during menstruation. Majority of students, 67.8% (42) were touching domestic animals during menstruation. This percentage increased to 79% (49) during post-test. During pre-test, majority of students, 72.6% (45) are not wearing new clothes during menstruation and there was only a slight change in the majority during post-test that is 80.7% (50). It is a belief in Hindu culture that menstruation is considered impure so women and girls are not allowed to wear new clothes during menstruation.

In the present study, during post-test, majority of students, 64.5% (40) are not attending functions during menstruation. During post-test, there was only a slight change in the percentage, which is 63% (39). These findings are similar to the study of Tiwari, which 43.7% adolescent girls did not participate in ceremonies or social activities with families during menstruation.⁸

During pre-test, majority of students, 48.9% (30) are not using market available pads. During post-test, 75.8% (47) are using market available pads. These are similar to findings of Patel et.al that 86.7% are using sanitary napkin, 13.3% are using cloth or both.¹ These findings are contradictory to Abhay M et.al that majority of girls, 46.67% were using cloth and 15.67% were using sanitary napkins as absorbent.¹ Similarly, Tania et.al reported that 19.5% are using readymade sanitary pad during menstruation.⁷

Majority of students, 45.2% (28) during pre-test are disposing the sanitary pads in public bin and the majority increased to 56.5% (35) during post-test. These findings are contradictory to the study findings of Patel et.al, that 71.94% dispose the absorbent in public dust bin.²

During pre-test, majority of girls, 53.2% (33) are not wrapping the used sanitary pad with paper before discarding. But during post-test, majority 72.5% (45) is wrapping the used sanitary pad with paper before discarding. During pre-test, 53.2% (33) are allowed to touch water sources during menstruation, but during post-test, 58% (36) are allowed to touch water sources. Majority of students, 61.3% (38) are taking head bath on first day of menstruation during pre-test and it increased to 87.1% (54) during post-test. Sarah et.al reported that 51% of girls in Iran do not take bath for eight days after the onset of their period.⁶

Majority of students, 59.7% (37) during pre-test are attending the school during pre-test and it increased to 77.4% (48) during post-test. These findings are contradictory to study findings of Sarah et.al that 95% of girls in Ghana sometimes miss school due to menses.⁶ In Malawi 7% of girls miss school on heavy days. Over a term, each girl misses 0-8 days. Majority of girls 59.7% (37) during pre-test are eating separately and

there was no change in the majority, which is 59.7% (37) during post-test, as it is a cultural practice to eat separately during menstruation. Majority of girls 61.3% (38) practice purifying with sacred water after menstrual cycle during pre-test and during post-test, it was 58.1% (36).

During pre-test, majority, 66.1% (41) are following food restriction during menstruation and during post-test, 92% (57) are not following food restriction. Majority of students, 61.3% (38) are sleeping on the floor during both pre and post-test. Majority of students, 53.2% (33) are sharing menstrual problems with mother/teacher during pre-test that increased in the percentage to 96.8% (60) during post-test. Majority of students, 54.8% (34) are sharing feelings about menstruation with friends during pre-test and it increased to 98.4% (1) during post-test.

Overall, all the practices shows statistical significance between pre-test and post-test, that is $p = < 0.05$ showing statistical significance. Except touching others during menstruation. ($p=0.07$). Thus, the structured teaching program on menstrual hygiene is effective on menstrual hygiene practices.

Implications to Nursing: As knowledge can influence change in attitude and practices in future over time, health education on menstrual hygiene should be implemented. Nursing personnel need to focus on parents, teachers and adolescent girls to enhance information and can encourage them to discuss about menstrual hygiene and problems. The adolescent girls in future can practice hygienic menstrual practices and also learn to share the information to their off springs there by maintaining chain of transmission of information.

Implication to community health nurses: Community health nurses also need to concentrate on the sanitary facilities available at school like safe water for washing, toilet facilities, availability of napkin, safe disposal of used napkins. Community health nurses also need to provide training to teachers on all these aspects that improve the hygienic practices among adolescent girls.

Implication to Administrators: Providing menstrual hygiene should begin in early life. Administrators should coordinate with school, family and students to provide correct information by arranging health education program. Nursing administrators should be involved to prepare booklets on menstrual hygiene and distribute among parents and students of adolescent age group to disseminate health information. Training programs should also be planned for both teachers and parents about menstrual hygiene management to clarify misconceptions.

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