

Effectiveness of menstrual hygiene education among adolescent school girls

¹ Jyoti Kumari, ² Dr. NV Muninarayanappa, ³ Krishnaveni R Muruges, ⁴ BS Iayaraja, ⁵ Nageshwar V

^{1*} M.Sc Nursing Final year student, Deptt. Of Community Health Nursing, Teerthanker Mahaveer University, Bagarpur, Moradabad, Uttar Pradesh, India

² Principal, Teerthanker Mahaveer College of Nursing, Teerthanker Mahaveer University, Bagarpur, Moradabad, Uttar Pradesh, India

³ Assistant professor, Deptt. Of Community Health Nursing, Teerthanker Mahaveer University, Bagarpur, Moradabad, Uttar Pradesh, India

⁴ Assistant professor, Deptt. Of Paediatric Nursing, Teerthanker Mahaveer University, Bagarpur, Moradabad, Uttar Pradesh, India

⁵ PG Tutor, Deptt. Of Psychiatric Nursing, Teerthanker Mahaveer University, Bagarpur, Moradabad, Uttar Pradesh, India

Abstract

The ability to reproduce is associated with the physiological process known as menstruation. Menstruation is also considered taboo and often enough information is not provided to the girls. This results in girls having little or no knowledge about the aspects of menstruation which may result in different types of morbidity in women. The purpose of this study was to find out the effectiveness of menstrual hygiene education on the level of knowledge and practice among adolescent school girls. Quasi-experimental survey design was adapted. To achieve the purpose 100 adolescent school girls were randomly selected from selected School of Moradabad, Moradabad district, U.P. The subject age ranged from 12 to 16 years. The subjects were considered as only one group. The following criterion variables were selected for the study such as age group, educational status, religion, mother's education, mother's occupation, monthly family income, age when menstruation started, source of knowledge about menstrual hygiene, products used during menstruation. The audio-visual aids used for menstrual hygiene education were flash cards, charts, handouts, leaflets, pamphlets, blackboard, flannel graphs. The pretest was taken on the day before giving menstrual hygiene education to the adolescent school girls and the post test was taken one week later. The data was statistically analyzed by using t-test, t-test for knowledge was 34.58 and for practice was 9.89. It is concluded the menstrual hygiene education was effective.

Keywords: Menstrual hygiene education, knowledge and practice, adolescent school girls

1. Introduction

Adolescence in girls signifies the transition from girlhood to womanhood [3]. Adolescent girls constitute about 1/5th total female population in the world. Adolescence in girls has been recognized as a special period in their life cycle that requires specific and special attention. This period is marked with onset of menarche. Menstruation is a phenomenon unique to all females. It is still considered as something unclean or dirty in Indian society [4].

Menstruation is the sign of a normal female body. This is not unhealthy or unhygienic [5]. Menstrual hygiene is an issue that is insufficiently acknowledged and has not received adequate attention in the reproductive health [6].

Even today, the world do not do open discussion about menstruation which results in ignorance of the scientific facts for adolescent girls remaining as unhygienic health practices that results as negative reproductive health. Menstrual hygiene deals with the special health care needs and requirements of women during monthly menstruation or menstrual cycle [7].

The taboos and socio-cultural restrictions are still clouding menstruation and menstrual practices which is insufficiently acknowledged in the society due to which there is ignorance of the scientific facts resulting in unhygienic health practices among adolescent girls sometimes resulting into adverse health outcomes [1].

2. Materials and Methods

The purpose of the study was to find the effectiveness of menstrual hygiene education on the level of knowledge and practice among adolescent school girls. The Quasi-experimental, one group pre-test, post-test was used in the study. Sample consists of 100 adolescent school girls who were studying in class 7th to 10th standard in selected school of Moradabad, Moradabad, U.P. 100 school adolescent girls were selected based on simple random sampling method. Tool used for data collection was structured questionnaire for knowledge and self-reported checklist for practice regarding menstrual hygiene among school adolescent girls. The age of the adolescent girls were ranging from 12 to 16 years who were studying in class 7th to 10th standard.

2.1. Statistical technique

Descriptive statistics (frequency, mean, percentage and standard deviation) were used for the assessment of the level of knowledge and practice regarding menstrual hygiene and inferential statistics (paired t- test, chi square) was used to analyze the data and calculate the effectiveness of menstrual hygiene education among the adolescent school girls.

3. Results

Majority of the respondent 37(37%) were in the age group 15 years, the maximum students were from 8th standard 28(28%). Majority of students belong to Muslim religion 71(71%),

62(62%) of adolescent school girls mothers were illiterate and minimum mothers were graduation and above 06(06%). Around 90(90%) of mothers were housewife, majority of the adolescent school girls had monthly family income below Rs 5000/-, 69(69%); and about 53(53%) attained menarche at the

age of 13-14 years. 94(94%) adolescent school girls were getting information about menstruation from their mothers. 78(78%) of the adolescent school girls were using sanitary pads, 20(20%) of the girls were using new cloth and 02(02%)girls were using used cloth during their menstruation.

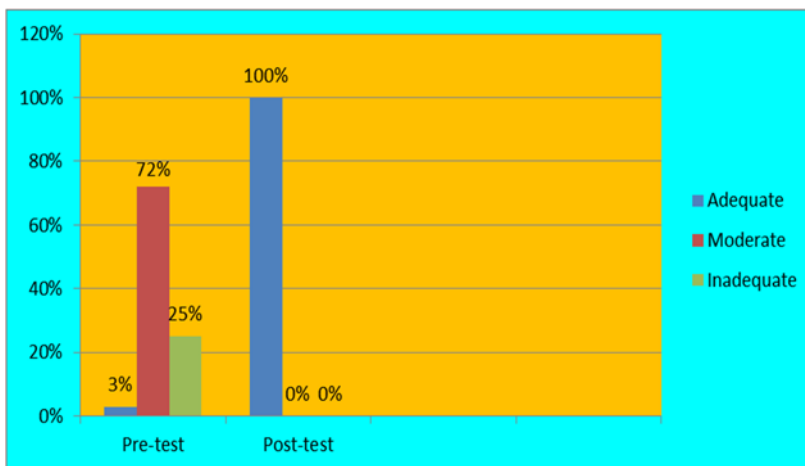


Fig 1: Column Diagram Representing Percentage Distribution of Pretest Knowledge Scores of Adolescent School Girls.

According to Pretest knowledge scores majority (72%) of the adolescent school girls have moderate knowledge, minimum (03%) adolescent school girls have adequate knowledge,

(25%) of adolescent school girls have inadequate knowledge regarding menstrual hygiene.

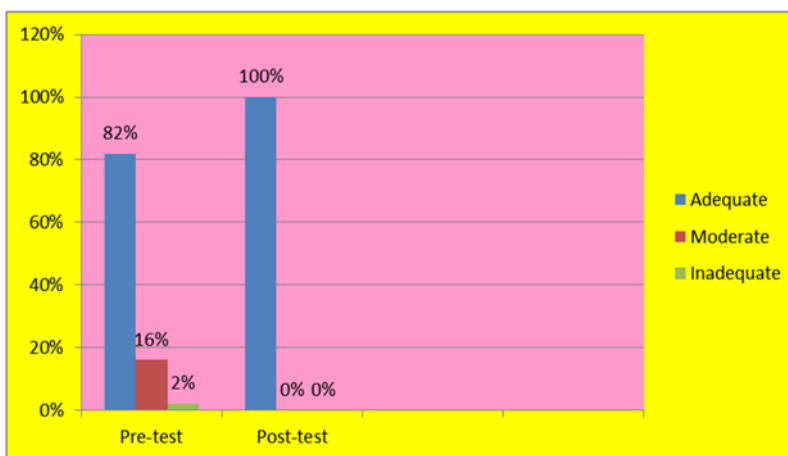


Fig 2: Column Diagram Representing Percentage Distribution of Pretest Practice Scores of Adolescent School Girls.

According to Pretest practice scores majority (82%) of the adolescent school girls are doing adequate practice, minimum (02%) adolescent school girls are doing inadequate practice, (16%) of adolescent school girls are doing moderate practice regarding menstrual hygiene.

value was 34.58, which means menstrual hygiene education effectiveness was significant.

Table 1: Comparison of mean, standard deviation and t value of pre test and post test of knowledge of quasi experimental group

N=100

Group	Test	Mean	Standard Deviation	t Value
One Group	PRE TEST	11.75	1.82	34.58
	POST TEST	18.36	1.004	

The above table shown that pretest knowledge mean was (11.75), standard deviation was 1.82. Post-test mean was (18.36), standard deviation was 1.004. It was found that t-

Table 2: Comparison of mean, standard deviation and t value of pre test and post test of practice of quasi experimental group

N=100

Group	Test	Mean	Standard Deviation	t Value
One Group	PRE TEST	8.50	1.41	9.89
	POST TEST	9.79	1.37	

The table 2 shown that pretest practice mean was (8.50), standard deviation was 1.41. Post-test mean was (9.79), standard deviation was 1.37. It was found that t- value was 9.89, which means menstrual hygiene education effectiveness was significant.

Chi Square Value of Demographic Characteristics (Knowledge and Practice)

Table 3: Association between pre-test level of knowledge regarding menstrual hygiene among adolescent school girls studying in class 7th to 10th standard with selected demographic characteristics.

S. No	Demographic Characteristics	Inad.	Mod.	Ad.	χ^2	d.f	P- Val.	Inf.
1.	Age (in years)				3.56	8	15.51	NS
	12	0	3	3				
	13	0	8	3				
	14	1	23	8				
	15	1	28	8				
	16	1	10	3				
2	Educational Standard				22.37	6	12.59	S
	7 th standard	0	13	7				
	8 th standard	0	15	13				
	9 th standard	3	23	01				
	10 th standard	0	21	04				
3	Religion				26.73	6	12.59	S
	Hindu	1	10	4				
	Muslim	1	51	19				
	Christian	1	11	2				
	Others	0	0	0				
4	Mother's Education				6.29	6	12.59	NS
	Illiterate	1	47	14				
	Preschool-5 th class	1	12	5				
	6 th -12 th class	0	9	5				
	Graduation and above	1	4	1				
5	Mother's Occupation				17.16	6	12.59	S
	Housewife	2	64	24				
	Government job	0	3	0				
	Private job	0	2	1				
	Others	1	3	0				
6	Monthly Family Income				19.94	6	12.59	S
	Below Rs 5000/-	1	50	18				
	Rs 5001-10,000/-	0	15	4				
	Rs 10,001-15,000/-	1	6	3				
	Above Rs 15,001/-	1	0	1				
7	Age When Menstruation Started				7.70	6	12.59	NS
	9-10 years	0	3	2				
	11-12 years	1	29	7				
	13-14 years	1	38	14				
	15-16 years	1	2	2				
8	Source Of Knowledge				4.09	8	15.51	NS
	Mother	3	69	22				
	Friends and relatives	0	1	2				
	Health personnel	0	0	0				
	Books	0	1	0				
	Mass media	0	1	1				
9	Products Used During Menstruation				10.42	4	9.48	S
	Sanitary pad	2	59	17				
	New cloth	1	12	7				
	Used cloth	0	1	1				

Table value of χ^2 at 5 % (p < 0.05) level.

S=Significant

NS=Non-Significant

It was noted from table 3, the 'p' value at 0.05 level, the tabulated value is less than the calculated value for the demographic characteristics of educational standard, religion,

mother's occupation, monthly family income and products used during menstruation. Hence, it is significant at 5% level of significance.

Table 4: Association between pre-test level of practice regarding menstrual hygiene among adolescent school girls studying in class 7th to 10th standard with selected demographic characteristics.

S. No.	demographic characteristics	Inad.	Mod.	Adeq.	χ^2	df	P- val.	Inf
1	Age				13.73	8	15.51	NS
	12	4	1	1				
	13	9	2	0				
	14	29	3	0				
	15	28	9	0				
	16	1	1					
2	Educational Standard				60.57	6	12.59	S
	7 th standard	16	3	1				
	8 th standard	18	9	1				
	9 th standard	27	0	0				
	10 th standard	21	4	0				
3	Religion				2.13	6	12.59	NS
	Hindu	13	2	0				
	Muslim	56	13	2				
	Christian	13	1	0				
	Others	0	0	0				
4	Mother's Education				32.59	6	12.59	S
	Illiterate	49	11	2				
	Preschool-5 th class	16	2	0				
	6 th -12 th class	11	3	0				
	Graduation and above	6	0	0				
5	Mother's Occupation				2.27	6	12.59	NS
	Housewife	73	15	2				
	Government job	3	0	0				
	Private job	3	0	0				
	Others	4	0	0				
6	Monthly Family Income				2.16	6	12.59	NS
	Below Rs 5000/-	56	12	1				
	Rs 5001-10,000/-	15	3	1				
	Rs 10,001-15,000/-	9	1	0				
	Above Rs 15,001/-	2	0	0				
7	Age When Menstruation Started				4.85	6	12.59	NS
	9-10 years	3	2	0				
	11-12 years	33	4	0				
	13-14 years	42	9	2				
	15-16 years	4	1	0				
8	Source Of Knowledge				2.75	8	15.51	NS
	Mother	78	14	2				
	Friends and relatives	2	1	0				
	Health personnel	0	0	0				
	Books	1	0	0				
	Mass media	1	1	0				
9	Products Used During Menstruation				3.21	4	9.48	NS
	Sanitary pad	64	12	2				
	New cloth	14	6	0				
	Used cloth	2	0	0				

* Significant at 5 % (p < 0.05)

S= Significant

NS= Non- Significant

It was noted from table 4, the ‘p’ value at 0.05 level, the tabulated value is less than the calculated value for the demographic characteristics of educational standard and mother’s education. Hence, it is significant at 5% level of significance.

4. Discussion

In this study it was found that 72% of adolescent school girls had moderate knowledge and 82% of girls had adequate practice regarding menstrual hygiene. The menstrual hygiene

education was significant; t value for knowledge is 34.58 and for practice is 9.89. And compared to other studies such as a Quasi Experimental study was conducted by Bhudhagaonkar Jyotsna, Mahadeo “Impact of Structured Education Regarding Menstrual Hygiene Practices among Adolescent Girls”. 58% of samples were hiding used sanitary clothes and were reusing the sanitary cloth for more than one month. There was significant gain in knowledge in posttest. The findings reported that the structured education among adolescent girls is effective regarding menstrual hygiene practices [8].

5. Conclusion

Overall level of knowledge and practice regarding menstrual hygiene was found average in pretest and still lagging behind and efforts need to be made to improve education regarding menstrual hygiene among adolescent girls.

6. Conflict of interest

The author have no conflict of interests related to the conduct and reporting of the research.

7. Source of funding

Source of funding for this research was author itself. This study was not supported by any other external funding.

8. Ethical clearance

Before the conduct of the study written permission was obtained from Teerthanker Mahaveer University. Consent and willingness was established from all the subjects who meet inclusion criteria of the study.

9. References

1. Thakur H *et al.* Knowledge, Practices, and Restrictions Related to Menstruation among Young Women from Low Socioeconomic Community in Mumbai, India, *Front Public Health*. 2014; 2:72.
2. [www.poopcouncil.org>uploads>pdf](http://www.poopcouncil.org/uploads/pdf)
3. Juyal Ruchi *et al.* practices of menstrual hygiene among adolescent girls in a district of Uttarakhand, *Indian journal of community health*. 2012, 24(2).
4. Jogdand Keerti, Yerpude Pravin. A community based cross sectional study on menstrual hygiene among adolescent girls, *Indian Journal of maternal and child health*. 2011; 13(3):2A.
5. Swarnkar Kesav. *Community Health Nursing*, 3rd edition, N.R.Brothers Publications, 2011, 493-494.
6. Dr. Shamima Yasmin *et al.* Menstrual hygiene among adolescent school students: An indepth cross-sectional study in an urban community of West Bengal, India, *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*. 2013; 5(6):22-26.
7. Barathalakshmi J *et al.* knowledge and practice on menstrual hygiene among school going adolescent girls, *National journal of research*. 2014; 3(2):138-142.
8. Bhudhagaonkar Jyotsna, Mahadeo Shinde. Impact of Structured Education Regarding Menstrual Hygiene Practices among Adolescent Girls, *International Journal of Science and Research (IJSR) ISSN (Online)*, 2014; 3(5):358.