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A Study on the Effect of a Structured Educational Program on Menstrual Hygiene Awareness Among Adolescent Girls at Pt. Shri Narayan Pandey Intermediate College, Chaubepur, Kanpur, Uttar Pradesh

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Abstract

Menstruation is totally normal and experienced by lots of people worldwide each month. Taking care of your menstrual hygiene is super important for women and girls from their first period to menopause. During those 2–7 days each month, it is essential to practice good menstrual health for avoiding infections, minimizing odors, and staying comfy. Unfortunately, in many places, talking about periods is considered taboo due to traditional beliefs. This lack of discussion makes it tough for girls and women to learn about proper menstrual hygiene practices and maintaining good health during menstruation Poor hygiene can lead to various infections that seriously affect health. One major focus for girls and women is managing menstrual hygiene properly. Maintaining menstrual hygiene with clean and absorbent sanitary products is essential for preventing infections. Alarmingly, many young girls in India continue to rely solely on cloths during their menstrual periods, with some only changing them once a day. A research study was carried out at Pt. Shri Narayan Panday Intermediate College, located in Chaubepur, Kanpur, Uttar Pradesh, which focused on evaluating the impact of a well-organized educational program aimed at improving adolescent girls' understanding of menstrual hygiene. The study sought to assess the effectiveness of this structured teaching initiative in enhancing the knowledge of menstrual hygiene among the participants. Let us spread the word about the importance of menstrual hygiene and help make sure all girls have access to the right information.

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INTRODUCTION

Menstruation is a significant milestone in a girl's life, marking the onset of her reproductive phase. It signifies a natural and essential biological process that happens each month as the uterus sheds its lining, resulting in the release of blood and tissue through the vagina. While menstruation is a normal part of life for women, it is critical to maintain proper hygiene throughout this period. This study aims to provide valuable information on how to maintain hygiene during menstruation, emphasizing its importance in ensuring reproductive health and overall well-being. Each month, millions of women worldwide experience menstruation, typically

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lasting between 2 and 7 days. For young girls and women, proper menstrual hygiene practices can help prevent infections, unpleasant odors, and discomfort. If left unmanaged, menstrual hygiene issues can lead to a range of health concerns, including infections, urinary tract issues, and rashes. Therefore, it is crucial for women, especially adolescents, to adopt healthy menstrual hygiene practices from the onset of their menstrual cycle [1–3].

The World Health Organization (WHO) defines adolescence as the period between 10 and 19 years, a transitional phase where girls shift from childhood to adulthood. This stage is also the time when menstruation begins, but unfortunately, menstruation continues to be surrounded by societal taboos and stigma in many cultures. This creates an environment where young girls may lack essential knowledge and understanding about the necessary health practices that promote good reproductive health. In many regions, the lack of open discussion and education about menstruation limits young girls' ability to manage their menstrual health effectively. It is crucial to break these taboos and provide adolescent girls with the proper guidance, resources, and education to ensure they can manage their menstrual cycles confidently and safely. In particular, maintaining menstrual hygiene during this time is critical to prevent infections and ensure the overall health and comfort of the individual. May 28th is globally recognized as Menstrual Hygiene Day, a day dedicated to raising awareness and promoting proper menstrual hygiene management across the world. This observance emphasizes the need for better menstrual health education and access to menstrual products. In India, statistics highlight concerning trends in menstrual hygiene management, with a significant number of adolescent girls facing challenges in managing their periods effectively. According to reports, 28% of schoolgirls in India miss school during their menstrual periods, often due to the lack of adequate facilities or the social stigma surrounding menstruation. Furthermore, the National Family Health Survey (NFHS) reveals that a staggering 62% of girls aged 15–24 years rely on cloth during menstruation, with only 16% opting for sanitary napkins. This shows a lack of access to or awareness of better sanitary products, which are essential in maintaining cleanliness and hygiene during menstruation. Additionally, 60% of girls in India change their menstrual cloths only once a day, a practice that poses significant health risks [4–7].

Proper menstrual hygiene management is vital for the health, education, and dignity of adolescent girls and women. Without the right knowledge and resources, girls may not be able to maintain hygiene properly during menstruation, which can lead to infections and other reproductive health issues. Poor menstrual hygiene practices also affect their self-esteem and could potentially have long-term effects on their overall health. Lack of awareness and poor menstrual hygiene management can result in severe consequences, including reproductive tract infections, urinary tract infections, and even complications like infertility. Moreover, the shame and silence around menstruation prevent many girls from discussing their concerns or seeking the necessary help. To address this issue, it is essential to promote open conversations about menstruation, improve access to sanitary products, and educate girls about the importance of changing menstrual products regularly and maintaining proper hygiene throughout their period. Investing in menstrual health education and breaking societal taboos surrounding menstruation are crucial steps toward creating a healthier and more informed generation of women. Empowering young girls with the knowledge and tools they need to manage their menstrual health can help ensure that they lead healthy lives, remain in school, and ultimately achieve better quality of life and well-being. Raising awareness about menstrual hygiene is a collective responsibility that must be prioritized for the health and future of young girls around the world [8–10].

OBJECTIVES OF THE STUDY

The goals of the study are outlined as follows:

- To assess the level of knowledge regarding menstrual hygiene among adolescent girls prior to and following the intervention.
- To assess the impact of a structured teaching program on their comprehension of menstrual hygiene.
- To investigate the correlation between the post-intervention knowledge of menstrual hygiene and the selected socio-demographic characteristics of the adolescent girls.

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HYPOTHESIS

- *H1:* Adolescent girls lack sufficient knowledge about menstrual hygiene.
- *H2:* Adolescent girls hold a negative attitude toward menstrual hygiene.

MATERIAL AND METHOD

A quantitative research approach using a one-group pre-test post-test design was utilized for this study to evaluate awareness of menstrual hygiene among adolescent girls in Chaubepur, Kanpur, UP. A total of 30 adolescent girls were chosen through simple random sampling. Approval was granted by the college administration for the chosen participants to take part in the study. A self-structured questionnaire consisting of 20 questions was employed to assess the awareness of adolescent girls regarding menstrual hygiene.

RESULT

The comparison of pre-test and post-test awareness scores regarding menstrual hygiene revealed that the mean pre-test score was 7.1, while the post-test mean was 15.5. The mean percentage for the pre-test was 31%, compared to 69% for the post-test. The standard deviation for the pre-test was 5.7, while for the post-test, it was 12.3, leading to a mean difference of 8.4. This suggests that the mean score in the post-test is considerably higher than that of the pre-test. The comparison of the pre-test and post-test awareness scores showed a significant difference, with a t-value of 3.37 at a p-value of less than 0.05 (Table 1).

DISCUSSION

Section I: Frequency and Percentage Wise Description of Socio Demographic Variables of Adolescent Girls

The sample was chosen using probability sampling from the adolescent girls at Pt. Shri Narayan Panday Intermediate College in Chaubepur, Kanpur, UP. The collected data were analyzed using descriptive statistics and presented as percentages. Majority (56.70%) of the subjects were in the group of 15–18 years (Table 2).

1. Majority (100%) of the subjects were unmarried.
2. Majority (100%) of the subjects were Hindus.
3. Majority (70%) of the subjects had body size small.
4. Majority (50%) of the sample were in high school.
5. Majority (74%) of the sample were from middle class.
6. Majority (60%) of the samples were from urban area.
7. Majority (90%) of the samples had awareness about menstrual hygiene.
8. Majority (70%) of the samples had menstrual flow for 3–5 days per month.

Section-II: Frequency and Percentage Wise Description of College Going Adolescent at Pt. Shri Narayan Pandey Intermediate College According to Their Pre-test and Post-test Knowledge

Tables 3 and 4 present the distribution of students based on their awareness levels regarding the topic before and after the educational intervention, represented in frequency and percentage.

Table 1. Comparison of Pre-test and Post-test awareness scores.

Parameter	Pre-Test	Post-Test	Mean Difference
Mean Score	7.1	15.5	8.4
Mean Percentage	31%	69%	38%
Standard Deviation	5.7	12.3	-
t-Value	-	-	3.37
p-Value	-	-	<0.05

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Table 2. Socio-demographic profile of adolescent girls.

S.N.	Socio-Demographic Variable	Frequency (No. of Students)	Percentage (%)
1	Age Group		
	15–18 years	34	56.70%
2	Marital Status		
	Unmarried	50	100%
3	Religion		
	Hindu	50	100%
4	Body Size		
	Small	35	70%
5	Education Level		
	High School	25	50%
6	Socio-Economic Status		
	Middle Class	37	74%
7	Residential Area		
	Urban	30	60%
8	Awareness of Menstrual Hygiene		
	Yes	45	90%
9	Duration of Menstrual Flow		
	3–5 days per month	35	70%

Table 3. Pre-test knowledge levels of college students.

Awareness Level	Frequency (No. of Students)	Percentage (%)
Good Awareness	5	10%
Average Awareness	30	60%
Poor Awareness	15	30%
Total	50	100%

Table 4. Post-test knowledge levels of college students.

Awareness Level	Frequency (No. of Students)	Percentage (%)
Good Awareness	35	70%
Average Awareness	10	20%
Poor Awareness	5	10%
Total	50	100%

Pre-Test Results

- The majority of students (60%) demonstrated an average awareness level about the topic before the intervention.
- 10% of students showed a good awareness level, while 30% had a poor awareness level.

Post-Test Results

After the intervention, the data shows a marked improvement in the students' awareness levels:

- 70% of students now have good awareness, indicating a significant increase in knowledge due to the intervention.
- 20% of students have an average awareness level, and only 10% still have a poor awareness level.

This increase in the percentage of students with good awareness (from 10% in the pre-test to 70% in the post-test) reflects the effectiveness of the educational intervention conducted at Pt. Shri Narayan Pandey Intermediate College.

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Section III: Comparison of Pre-test and Post-test Level of Knowledge Regarding Menstrual Hygiene of College Going Adolescent at Pt. Shri Narayan Pandey Intermediate College

A comparison of the pre-test and post-test knowledge levels on menstrual hygiene revealed that the mean score for the pre-test was 7.1, while the mean score for the post-test was 15.5. The pre-test mean percentage was 31%, whereas the post-test mean percentage was 69%.

The standard deviation for the pre-test was 5.7, and for the post-test, it was 12.3, leading to a mean difference of 8.4. This suggests that the mean score of the post-test is considerably higher than that of the pre-test.

Section IV: Effectiveness of Structured Teaching Program on Knowledge Regarding Menstrual Hygiene

The impact of the structured teaching program on menstrual hygiene knowledge was evaluated by comparing the mean scores and standard deviations of the pre-test and post-test. The calculated 't' value was 4.18, which is higher than the table value at the 0.05 level of significance. This indicates a notable difference between the pre-test and post-test knowledge levels concerning menstrual hygiene awareness.

Section V: Association Between the Levels of Pre-test Knowledge Score Among the Students with Their Selected Socio Demographic Variables

The association between pre-test knowledge scores among adolescent girls and their selected socio-demographic variables showed that most variables were related to knowledge scores, except for residential area and religion at the 0.05 significance level.

1. *Association with Age:* There was no significant relationship between pre-test knowledge scores regarding menstrual hygiene and age (X^2_cal (6)=13.2, p>0.05) at the 0.05 significance level. Thus, the research hypothesis was accepted.
2. *Association with Marital Status:* The analysis indicated no significant association between pre-test knowledge scores regarding menstrual hygiene and marital status (X^2_cal (2)=18.23, p>0.05) at the 0.05 significance level. Therefore, the research hypothesis was accepted.
3. *Association with Religion:* There was no significant relationship between pre-test knowledge scores regarding menstrual hygiene and religion (X^2_cal (6)=4.07, p>0.05) at the 0.05 significance level. Consequently, the research hypothesis was rejected.
4. *Association with Family Size:* The results showed no significant association between pre-test knowledge scores regarding menstrual hygiene and family size (X^2_cal (2)=21.2, p>0.05) at the 0.05 significance level. Hence, the research hypothesis was accepted.
5. *Association with Parents' Education:* There was no significant association between pre-test knowledge scores regarding menstrual hygiene and parents' education (X^2_cal (6)=16.96, p>0.05) at the 0.05 significance level. Therefore, the research hypothesis was accepted.
6. *Association with Socio-Economic Status:* The analysis indicated no significant association between pre-test knowledge scores regarding menstrual hygiene and socio-economic status (X^2_cal (6)=15.2, p>0.05) at the 0.05 significance level. Thus, the research hypothesis was accepted.
7. *Association with Residential Area:* There was no significant relationship between pre-test knowledge scores regarding menstrual hygiene and residential area (X^2_cal (4)=5.3, p>0.05) at the 0.05 significance level. Consequently, the research hypothesis was rejected.
8. *Association with Awareness:* There was no significant association between pre-test knowledge scores regarding menstrual hygiene and awareness (X^2_cal (2)=12.7, p>0.05) at the 0.05 significance level. Therefore, the research hypothesis was accepted.
9. *Association with Number of Pads Used Daily:* The analysis found no significant association between pre-test knowledge scores regarding menstrual hygiene and the number of pads used daily (X^2_cal (6)=16.42, p>0.05) at the 0.05 significance level. Hence, the research hypothesis was accepted.

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CONCLUSION

The following conclusions were drawn on the basis of the findings of the study:

- Pre-test awareness level score was identified according to score of menstrual hygiene by using structured knowledge questionnaire on menstrual hygiene. The identified pre-test awareness level score regarding menstrual hygiene revealed that 10% students were having good awareness level, 60% were having average awareness level and 30% were having poor awareness regarding menstrual awareness.
- Post-test awareness level score was identified according to score of menstrual hygiene by using structured knowledge questionnaire on menstrual hygiene. The identified post-test awareness level score regarding menstrual hygiene revealed that 70% students were having good awareness level, 20% were having average awareness level and 10% were having poor awareness level regarding menstrual hygiene.
- The comparison of pre-test and post-test awareness score regarding menstrual hygiene the mean of pre-test is 7.1 and post-test is 15.5; mean percentage of pretest is 31% and post-test is 69%; standard deviation of pre-test is 5.7 and post-test is 12.3, mean difference is 8.4. In the comparison of pre-test and post-test, the awareness score showed a significant difference with a t-value of 3.37 at a p-value < 0.05 level of significance.

The results indicated a significant difference between the pre-test and post-test awareness scores regarding learning disorders among adolescent girls.

Hence the research hypothesis (H1) was accepted.

- There was no association between age, marital status, religion, family size, education status of parents, socio-economic status, residential area, awareness regarding menstruation, and number of sanitary pads used per day during menstruation.

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Conflict of Interest

The authors declare no conflict of interest.

REFERENCES

1. Borkar SK, Borkar A, Shaikh MK, Mendhe H, Ambad R, Joshi A. Study of Menstrual Hygiene Practices Among Adolescent Girls in a Tribal Area of Central India. Cureus. 2022 Oct 13; 14(10): e30247. doi: 10.7759/cureus.30247. PMID: 36381734; PMCID: PMC9652700.
2. Deshpande TN, Patil SS, Gharai SB, Patil SR, Durgawale PM. Menstrual hygiene among adolescent girls - A study from urban slum area. J Family Med Prim Care. 2018 Nov–Dec; 7(6): 1439–1445. doi: 10.4103/jfmpc.jfmpc_80_18. PMID: 30613539; PMCID: PMC6293884.
3. Shoor Purva. A study of knowledge, attitude, and practices of menstrual health among adolescent school girls in urban field practice area of medical college, Tumkur. Indian Journal of Health Sciences and Biomedical Research (KLEU). 2017 Sep–Dec; 10(3): 249–255. | DOI: 10.4103/kleuhsj.ijhs_375_16
4. Singh A, Kushwaha S. Awareness about reproductive tract infection, its relation with menstrual hygiene management and health seeking behaviour: A cross-sectional study among adolescent girls of Lucknow. J Family Med Prim Care. 2022;11(11):6690-6696. doi: 10.4103/jfmpc.jfmpc_510_21. Epub 2022 Dec 16. PMID: 36993070; PMCID: PMC10041320.
5. Singh N, Kumari R, Agarwal D, Jauhari S. Comparison of awareness and perception of menstrual hygiene between pre and postmenarchal adolescents of North India: A cross-sectional study. J Family Med Prim Care. 2021 Nov; 10(11): 4168–4175. doi: 10.4103/jfmpc.jfmpc_672_21. Epub 2021 Nov 29. PMID: 35136784; PMCID: PMC8797133.

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6. World bank group. (2022 May 12). Menstrual health and hygiene. [Online]. Available from the world bank http://www.worldbank.org/en/topic/water/brief/menstrual-health-and-hygiene.
7. UNICEF. Menstrual hygiene (Gender inequality, culture taboos and poverty can cause menstrual health needs to go unmet). [Online]. https://www.unicef.org/wash/menstrual-hygiene.
8. CDC. Healthy Habits: Menstrual Hygiene. [Online]. Available from https://www.cdc.gov/hygiene/about/menstrual-hygiene.html.
9. Drakshayani Devi K, Venkata Ramaiah P. A study on menstrual hygiene among rural adolescent girls. Indian J Med Sci. 1994 Jun; 48(6): 139–43. PMID: 7927585.
10. Dasgupta A, Sarkar M. Menstrual Hygiene: How Hygienic is the Adolescent Girl? Indian J Community Med. 2008 Apr; 33(2): 77–80. doi: 10.4103/0970-0218.40872. PMID: 19967028; PMCID: PMC2784630.

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