IJBPAS, June, Special Issue, 2023, 12(6): 572-578

ISSN: 2277–4998

International Journal of Biology, Pharmacy and Allied Sciences (IJBPAS)

'A Bridge Between Laboratory and Reader'

www.ijbpas.com

EFFECTIVENESS OF STP ON KNOWLEDGE REGARDING MENSTRUAL HYGIENE AMONG ADOLESCENT GIRLS STUDYING IN SELECTED RURAL SCHOOLS

VELUMANI S[1], CHATURVEDI A[2], CHAUHAN L[2], CHAUHAN R[2] AND PARMAR A[2]

1: Professor & HOD, Department of Mental health Nursing, Sumandeep Nursing College, Sumandeep Vidyapeeth Deemed to be University, Piparia, Vadodara, Gujarat, India

2: Final year Basic BSc Nursing students, Sumandeep Nursing College, Sumandeep Vidyapeeth Deemed to be University, Piparia, Waghodia, Vadodara, Gujarat, India

***Corresponding Author: Dr. Suresh Velumani; E Mail:** vss_ssh@yahoo.co.in

Received 25th Jan. 2023; Revised 24th Feb. 2023; Accepted 23rd April 2023; Available online 15th June

https://doi.org/10.31032/IJBPAS/2023/12.6.1080

ABSTRACT

Background: One of the most significant changes that girls experience during their adolescent years is the beginning of menstruation. Their health may be impacted by unhygienic menstrual practices, which may increase their susceptibility to problems and reproductive system infections. **Aim:** The primary aim of the study is to evaluate teenage girls' knowledge of menstruation hygiene in rural schools in Vadodara. **Methods**: The one group pre-test and post-test design of the pre-experiment was used, and power analysis applied to estimate the sample size. Utilizing probability proportionate stratified random sampling, 118 samples were chosen. The sample characteristics were described using descriptive statistics, and the efficiency of the teaching programme on menstrual hygiene was assessed using interferential statistics. **Results:** The distribution of respondents' pre-test knowledge about menstrual hygiene was recorded, as 72.2% Inadequate and 27% moderately adequate knowledge respectively. The post-test showed 7% inadequate, 26.9% moderately adequate and 66.1% adequate knowledge. A paired "t" test was used to determine whether there were any significant differences between the mean pre-test and post-test knowledge scores. The mean post-test knowledge score obtained (13.94) was higher than the mean pre-test knowledge score (8.29). The estimated t-value (18.68) was

supported to be significant at the alpha level of <0.05. **Conclusion:** It came to the conclusion that the STP was successful in improving adolescent girls' awareness of menstrual hygiene.

Keywords: Menstrual hygiene, adolescent girls, knowledge, effectiveness

INTRODUCTION:

Menstrual hygiene is a unique phenomenon for females. The chance of unsanitary methods of managing menstruation in India may increase due to access to feminine hygiene products and a lack of secure sanitary facilities. It is obvious from the study findings that the majority of the girls were having correct understanding regarding menstruation. In a survey of adolescent girls from rural areas, only 10 girls reported using boiled and dried cloth as menstrual absorbent. Although nearly every one of the 64 girls received menstrual hygiene advice from various sources, several of their practises were unsanitary. This demonstrates that the mother of these girls lacked in proper information, and this was passed on to their offspring. Adolescent girls are a vulnerable population, especially in India. Menstrual management is linked to embracing sanitary habits and accepting womanhood from the moment menarche occurs. To relieve girls' worry about their periods, all myths and taboos must be disproved, including those about not having a bath, avoiding hot and cold meals, and refraining from activity **[1]**. To accept it as a natural developmental phase and handle it responsibly, an adolescent girl should be informed of the phenomena of menstruation prior to menarche. Teenage girls want additional information and assurances on their evolving bodies, sexuality, identities, and health conditions **[2]**. The proportion of women in the world who are of reproductive age is about 52%. Most of these women menstruate two to seven days each month on average. The reproductive cycle naturally includes menstruation. Typically, the entire reproductive cycle lasts 21 to 35 days. Ovulation, or the release of an egg from the ovary to the fallopian tube, occurs during each reproductive cycle. In preparation for fertilization, blood and tissue coat the uterine walls, if fertilisation is unsuccessful, they are shed through the vagina. This common procedure is stigmatised and hence rarely mentioned. Menstruation is frequently handled improperly and is commonly regarded by schoolgirls as a terrible and isolated experience because of a lack of awareness and access to other crucial services. A literature highlights current difficulties in managing menstrual hygiene among schoolgirls and outlines recommendations and policy implications to address this issue that affects such a large population **[3]**. **Aims:** The primary aim of the study is to evaluate adolescent girls'

knowledge of menstrual hygiene in rural schools in Vadodara.

MATERIAL AND METHODS

Pre-experimental one group Pre-post-test design was used. The investigation was carried out in a few Vadodara rural schools. Among all the adolescent girls enrolled in classes eight and nine. These schools were specifically chosen based on their practicability. A total of 118 samples were chosen using proportionate stratified random selection. Adolescent girls in classes 8 and 9, as well as girls eager to participate in the study, are the criteria for sample selection. There are 20 multiple-choice questions on menstruation and menstrual hygiene in the questionnaire used to assess the knowledge level regarding menstrual hygiene of adolescent girls. Official approval was obtained from the responsible school authorities. Before the research got started, SVIEC, SVDU provided their ethical approval. The concerned parents were given consent forms for the collection of data by way of the school teachers. The confidentiality was preserved by guaranteeing that the information provided was used solely for research purposes. By asking the respondents not to write their names on the questionnaire, anonymity was guaranteed. The instrument for collecting data was a self-administered structured questionnaire. In terms of knowledge scores, menstrual hygiene knowledge was evaluated. Each of the 20 questions received a score of one for a correct response and zero for a wrong one. The score ranged from 0 to 20, with 20 being the highest possible. The proportion of the score obtained, i.e., score 10 Inadequate Knowledge (50%), score 11–15 Moderately Adequate Knowledge (>75–100%), and score 16–20 Adequate Knowledge (>75–100%), was used to interpret the level of knowledge. Pre-Test of the total sample size, 10% was chosen and pre-tested but was left out of the final analysis. By reading the available literature and talking with research experts, subject specialists, and peers, the content validity of the instruments was established. Using the Cronbach's alpha test method, the questionnaire's reliability was evaluated. The accuracy of the data was evaluated again after the data collection process was complete. In the main data collection adolescent girls in classes 8 and 9 were asked to sit in their respective classrooms during the data gathering period. Girls were segregated in the classroom while the pre-test questionnaire was delivered at the same time. It took fifteen to twenty minutes to complete the questionnaire. Following the pre-test, the same participants were subjected to a teaching programme. The same group of girls with whom the pre-test was conducted underwent a post-test ten days after the intervention. Statistical Package for Social Science (SPSS)- 16 was

used to assess the data that had been gathered. Inferential statistics, specifically the paired t-test and chi-square test, were used to determine the efficacy of teaching programmes regarding menstrual hygiene. Descriptive statistical methods, such as frequency, percentage, and mean, were employed to describe sample characteristics.

RESULTS:

Participants' average ages were 14.48 ±1.86 years. (Range from 12-18 years). Hindus made up the majority of the respondents (79.5%), followed by Christians (11.0%) and Muslims (7.9%). Reading and writing were determined to be the mother's highest levels of education, followed by illiteracy (33.0%). The mother's primary occupation was mostly as a homemaker (50.9%), followed by having a job (19.9%). Similar to the mother, the father's highest level of education was read and write (58.2%). fathers of respondents were typically employed (38.8%), followed by business (29.0%), and agricultural (23.0%). The majority of responders (69.0%) were from nuclear families. Among 118 respondents, the majority said that their parents (75.6%), teachers (5.0%), books and the media (19.2%) were their main sources of information on menstruation hygiene.

Table 1 shows the distribution of pre-test knowledge among respondents regarding menstrual hygiene, 72.2% had inadequate knowledge and 27.8% had moderately adequate knowledge. Whereas, in the post-test, most of them 66.1% demonstrated adequate knowledge after the intervention.

Table 2 reveals that the pre-test means knowledge score was 8.29±2.88, and it was increased to 13.94±2.27 in the post-test. The calculated paired 't-test value was significant (t= 18.68) with an alpha level of 0.05. With a p-value of less than 0.05, this demonstrates that the acquired mean difference between pre-test and post-test knowledge scores was a real difference and not a coincidental difference. It is therefore possible to draw the conclusion that the Structured Teaching Program greatly boosted adolescent girls' awareness of menstrual hygiene. Furthermore, at the 0.05 level, there was no association between adolescents awareness of menstrual hygiene and socio-demographic factors such their age, religion, mother's educational level, occupation, and family structure.

Table 1: Frequency and percentage distribution of level of knowledge regarding menstrual hygiene Pre-test and Post-Test

Knowledge Level (n=118)	Pre-Test	Post-Test
	n(%)	n(%)
<50% (Inadequate)	78(72.2)	8(7)
50-75% (Moderately adequate)	30 (27.8)	29(26.9)
>75%(Adequate)	0	71 (66.1)

Table 2: Comparison of pre-test and post-test knowledge scores of adolescents regarding menstrual hygiene

Level of Knowledge	Mean	Standard deviation	Differences in Mean	t	Paired t-test	Remarks
Pre-test	8.29	2.88	5.75	18.68	<0.05	Significant
Post-test	13.94	2.27				

DISCUSSION:

Participants' average ages were 14.48 ±1.86 years. The study's findings were similar to another study that was conducted in Delhi on the effectiveness of a planned teaching programme regarding menstrual hygiene on the knowledge, attitudes, and practises of adolescent schoolgirls in government schools. In that study, the majority (56.0%) of the adolescent girls were between the ages of 12 and 14 years. They were primarily from the VI class (36.0%). The majority (88.0%) of the population was Hindu, and among them, 70% were housewives, supporting the findings that the majority (44.0%) of mothers of teenage girls were illiterate **[4]**. According to research on the various materials used to absorb blood, the majority of people (61.25%) used sanitary pads, followed by reusable clothing (31.87%) and new clothing (6.87%). However, in another ethnography study conducted in 24 villages in 12 villages of Nepal, adolescent girls from the rural hill districts preferred using pads despite the fact that they are not readily available in nearby drug stores. The same study showed that Brahmin girl used clothing more frequently because it took her 3–4 hours to get to the closest store to buy sanitary pads **[5]**. Findings regarding awareness of menstrual hygiene before and after teaching programme. According to the study, the pre-test mean score for knowledge was 8.29, and the post-test mean score was 13.94. The value of the paired "t" test was 18.68. At an alpha level of 0.05, the estimated t-value is much higher than the value in the table. Thus, it becomes clear that organised educational programmes are beneficial in raising awareness of menstrual hygiene. The results of the study, where the pre-test mean knowledge score was 14.66 and the post-test mean knowledge score was 18.66, confirmed the conclusions **[6]**. Another study that included adolescent girls and confirm the earlier research's findings showed that pre-test knowledge of menstrual hygiene among adolescent girls had a mean value of 7.53 and a standard deviation of 2.17, and post-test knowledge had a mean of 16.83 and a standard deviation of 2.16. This study was carried out in India. As a result, post-test knowledge was more advanced than pre-test knowledge **[7]**. The study's results were also agreed by another quasi-experimental study among 100 adolescent girls in Puducherry, India, which found that pre-test knowledge of menstrual hygiene among adolescent girls

was on average 11.22 and on average 3.58, and post-test knowledge was on average 22.35 and on average 3.34, showing that post-test knowledge was higher than pre-test knowledge. Therefore, increasing adolescents understanding of menstrual hygiene through health education is useful **[8]**. Regarding the association between pre-test knowledge of menstrual hygiene and socio-demographic variables, no significant relationship between knowledge of menstrual hygiene among adolescents and socio-demographic variables was found at the 0.05 level, which is in contrast to the results of a study conducted in Kolar, India, which also revealed a significant relationship between knowledge scores of adolescent girls with socio-demographic variables **[9]**. In addition, contrary to the results of a study done in Ethiopia among 791 teenage girls, 68.3% of them had little awareness of menstruation. Poor menstrual hygiene practises were practised by 60.3% of girls, and poor menstrual hygiene knowledge was substantially correlated with bad menstrual hygiene practise **[10]**.

CONCLUSION:

Based on the study's findings, it is stated that structured training programme is an effective way to increase adolescent girls' understanding of menstrual hygiene. Most adolescent girls had insufficient knowledge before receiving a structured teaching programme. However, the post-test knowledge scores of adolescent girls drastically improved with the introduction of the Structured Teaching Program. Therefore, more understanding would result in improvements in practice, which would help adolescent girls' menstrual hygiene.

CONFLICT OF INTEREST

The authors declare that there is no any conflict of interest.

REFERENCES:

[1] Maharjan S, Maharjan M, Shrestha N, Singh S, Shrestha R. Effectiveness of structured teaching program on knowledge and practices on menstrual hygiene among adolescent schoolgirls in government schools of Lalitpur. Birat Journal of Health Sciences. 2020;5(3):1181–5.

[2] Helen Varney, Jan M. Kriebs, Carolyn L. Gregor. Varney's midwifery.4th ed. Jones and Bartlett publishers 2004. p.188.

[3] Jacqueline Grace Vaughn. A review of menstruation hygiene management among school girls in Sub Saharan Africa. April 2013, 5.

[4] Handa S, Negi R. Effectiveness of planned teaching programme on menstruation and menstrual hygiene in terms of knowledge, attitude & practice of adolescent school Girls in a selected Government School of Delhi. International Journal for Innovative

Research In Multidisciplinary Field. 2017Jul;3(7):66–9.

[5] Sapkota D. Sharma D. Pokharel HP. Budhathoki SS, Khanal VK. "Knowledge and practices regarding menstruation among school going adolescents of rural Nepal," JKMC.2014;2(3):117–121.

[6] Susila CS, Kumar JS, Precilla. Effectiveness of structured teaching programme on menstrual hygiene among the adolescent girls at a selected college – Pre-experimental study. I J CN. 2014; 1(1):7-10.

[7] Kishore K, Rani R. A study on effectiveness of structured teaching programme on knowledge regarding menstrual hygiene among adolescent girls. JETIR.2018February;5(2) :1203-6.

[8] Premila E, Ganesh K, Chaitanya BL. Impact of planned health education programme on knowledge and practice regarding menstrual hygiene among adolescent girls studying in selected high school in Puducherry. APJR. 2015;1(25):154-162.

[9] Silvia S and M Punith. Effectiveness of Structured Teaching Programme on Menstrual Hygiene among Adolescent Girls. JC Biomedical Sciences. 2016; 6(3): 96-99.

[10] Belayneh Z, Mekuriaw B. Knowledge and menstrual hygiene practice among adolescent school girls in southern Ethiopia: a cross-sectional study.BMC.2019 Nov;9(1)1595.