



Adolescent's knowledge on menstrual hygiene in polytechnic college- effectiveness of structured teaching programme

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Abstract

Background of the study: Menstruation is the phenomenon unique to the females. Menstrual cycle is the scientific term for the physiological changes that can occur in fertile women for the purpose of sexual reproduction and fertilization. Menstruation is monthly uterine bleeding for 3-5 days after 28 days from puberty till menopause. Menstrual hygiene is about access to absorb or collect menstrual blood, privacy to change the materials and access to facilities to dispose of used menstrual management materials.

Objectives: To assess the effectiveness of structured teaching Programme on knowledge regarding menstrual hygiene among adolescent girls in Dayananda Sagar Polytechnic College, Bangalore.

Methodology: The design Adopted is pre experimental, (one group pre-test post-test design) the samples were chosen by non-probability purposive sampling technique, consist 30 adolescent girls at Dayananda Sagar Polytechnic College, Bangalore, and a structured knowledge questionnaire was given to assess the knowledge of adolescent girls regarding menstrual hygiene. Which followed by a structured teaching program on menstrual hygiene and administered the same questionnaire to assess the post test.

Results: The overall mean post-test knowledge score regarding menstrual hygiene among adolescent girls 15.6 ± 2.7 (77.83%) was significantly higher than overall mean pre-test knowledge scores regarding menstrual hygiene among adolescent girls 10.5 ± 2.8 (53.33%) and the obtained overall 't' value was 7.17 which is higher than table value.

Keywords: effectiveness, structured teaching programme, knowledge, menstrual hygiene, adolescent girls

1. Introduction

The first menstrual period which occurs between the ages of 12-15 years and is an important landmark of women's life. Personal hygiene to be followed during menstruation are to use sterile pads during early period of heavy flow, bath daily for comfort and feel fresh, keep perineal area clean from anterior to posterior, cotton undergarments preferred. Hygiene related practices of adolescent girls during menstruation are of considerable importance, as it has long lasting impact on health and if it is a negative impact can cause increased vulnerability to reproductive tract infections. Menstrual practices are clouded by taboos and socio-cultural restrictions even today, resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes. Menstrual practices are clouded by taboos and socio cultural restrictions even today, resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health effects. Inadequate menstrual hygiene management is connected with the use of cloth, ashes and husk sand during menstruation, thereby it causes severe reproductive health problem.

According to World Health Organization (2015) there are about 74% of school girls had suffered with reproductive tract infection due to improper menstrual hygiene. The poor menstrual hygienic practices also leads to several problem among adolescent girls which include dropped out from the

school, inability to continue the education and reduction of self-esteem. It occurs because the adolescent girls don't practice menstrual hygiene.

Many studies, across India have reported poor menstrual hygienic practice among school girls in that majority of them are at risk for reproductive tract infections. A study conducted at Lucknow by Aravind Kumar (2013) among 28 lakhs adolescent girls revealed that approximately 19 lakhs school girls quit education because of menstruation related problems and reproductive tract 5 infections. Another study conducted by Dr. M. Tripura Sundari (2014) reported that reproductive tract infection occurs among girls due to unhygienic menstrual practices. A study which was conducted in India by Arumugam et.al., (2014) revealed that as many as 42% of women who participated in the study did not know about sanitary napkin and from where in the anatomy menstruation originated and most of them were scared and worried on menstruation. So prevention is better than cure. Maintaining proper menstrual hygiene will prevent the risk of reproductive tract infections. So the nurse plays a vital role within the multi-disciplinary team to help improve the quality of life for adolescent girls by offering health education. So that the adolescent girls will be better equipped to prevent reproductive tract infections due to improper menstrual hygiene.

A study conducted by Dr. Neelam Singh, Rierdan (2013) have reported that school students don't have adequate knowledge and practice on menstrual hygiene. Further they

concluded that only 40.6% of girls have knowledge regarding menstruation and among them only 12.9% of school girls practice the same. It is evident from the above information that many school girls aged between 12 to 14 years don't have awareness regarding sanitary napkin as a menstrual hygiene practice and they are not practicing good menstrual hygiene.

A descriptive study was conducted on menstrual hygiene management among adolescent girls in Shimla, Himachal Pradesh. The sample of the study was 100 adolescent girls. The data was collected through questionnaire. The study revealed that the data on knowledge scores revealed that only 29% had adequate knowledge about menstrual hygiene, 71% had inadequate knowledge about menstrual hygiene. The above findings reinforce the need to encourage safe and hygienic practices among the adolescent girls and bring them out of traditional beliefs, misconception and restrictions regarding menstruation.

In another descriptive cross sectional study on menstrual hygiene in Puducherry among 528 adolescent girls, it concluded that more emphasize is needed to be given on awareness of menstrual hygiene practices among adolescent girls. Hence the nurse plays a vital role within the multi-disciplinary team to help to improve the quality of life for adolescent girls by offering health education on menstrual hygiene. So that the adolescent girls will be better equipped to prevent reproductive tract infections due to improper menstrual hygiene.

2. Methods and Materials

2.1 Design and Setting

An institutional based pre experimental, one group pretest posttest design study was conducted with an objective to assess the effectiveness of structured teaching program on knowledge regarding menstrual hygiene among adolescent girls at dayananda sagar polytechnic College in kumaraswamy layout, Bangalore from March 2019.

2.2 Sample and Sampling Techniques

A purposive sampling technique was used to take a total number of 30 adolescent girls at dayananda sagar polytechnic College in kumaraswamy layout, Bangalore. The demographic variables of the study were age of adolescent girls, educational status, religion, first menstruation and prior knowledge on menstruation. The structured teaching program was the independent variable, whereas knowledge regarding menstrual hygiene among adolescent girls was the dependent variable for the study respectively.

2.3 Data collection

A pretest was conducted on knowledge regarding menstrual hygiene among adolescent girls using structured knowledge questionnaire consists of 20 items developed by after an extensive review of literature, discussion with the guide and various experts in the field of OBG nursing and based on investigator's personal experience. After checking the

validity and reliability administration of structured teaching Programme was carried out. Post test was conducted by using same questionnaire by lapse 7 days.

2.4 Data analysis

After data collection each questionnaire was checked for completeness, and data was entered and analyzed by using SPSS version 20 statistical package. Demographic proforma containing the sample characteristics was analyzed using frequency and percentage. The knowledge of Adolescent girls regarding menstrual hygiene among adolescent girls before and after administration of structured teaching Programme was calculated using mean, mean percentage and standard deviation.

The significant difference between the mean pre-test and posttest knowledge scores was calculated using paired 't' test. Level of significance was set at a level of 0.05 to interpret the hypothesis and findings. Based on the reviews of various research articles related to menstrual hygiene among adolescent girls the knowledge scores are operationally defined as Adequate knowledge was above 75% of correct answers followed by , 51% - 75 is Moderately adequate knowledge and Below 50% was considered as Inadequate knowledge.

2.5 Ethical Consideration

The proposal was approved by ethical review committee of Dayananda Sagar College of nursing. verbal and written consents was obtained from the study subjects after explaining the study objectives and procedures and their right to refuse to participate in the study any time they want to. For this purpose a page consent letter was attached to the cover page of each questionnaire stating about the general purpose of the study and issues of confidentiality which was discussed by the researcher before filling the questionnaire.

3. Results

Section I: Finding of demographic variables of adolescent girls. 30 adolescent girls were participated in the study. Regarding the age of Adolescent girls, majority of them 73.3% (22) belongs to the age group of 19-22 years, 26.7% (8) belongs to the age group of 15-18 years, and none of them were in 11-14 years. Regarding the educational qualification of the adolescent girls majority 83.33% (13) were undergraduate, 43.33% (10) were completed PUC, and 23.35% (7) were completed Secondary school. Regarding religion of adolescent girls majority 90% (27) were Hindu, 10% (3) were Muslim, and none of them were Christian religion. Regarding the age of menarche majority 86.66% (26) attended at 13-15 years of age, 6.66% (2) at 10-12 years and 6.66% (2) attended at 15 years and above. Regarding the family monthly income, majority of regarding the previous knowledge majority 70% (21) of them were not having previous knowledge on menstrual hygiene and 30% (9) of them were having previous knowledge on menstrual hygiene.

Table 1: Distribution of adolescent girls according to their demographic characteristics. N=30

	Variable	Frequency	Percentage
Age (in years)	11-14	0	00
	15-18	8	26.7
	19-22	22	73.3
Educational qualification	Secondary school	7	23.35
	PUC	10	43.33
	Undergraduate	13	83.33
Religion	Hindu	27	90
	Muslim	3	10
	Christian	0	00
Age at menarche	10-12	2	6.66
	13-15	26	86.66
	15 years and above	2	6.66
Previous knowledge	yes	9	30
	No	21	70

Section II: Analysis of pre-test scores of knowledge of adolescent girls regarding menstrual hygiene.

Table 2: Assessment of pre-test knowledge scores regarding menstrual hygiene N =30

Knowledge level	category	Respondents	
		frequency	percentage
Inadequate	≤50% score	18	60%
Moderate	51-75% score	10	33%
Adequate	≥ 75% score	2	7%

The data in Table 2 shows that majority of the respondents 60% (18) had inadequate knowledge, 33% (10) had moderate knowledge and 7% (2) had adequate knowledge on menstrual hygiene.

Table 3: Analysis of pre-test scores of knowledge regarding menstrual hygiene. N =30

Maximum possible score	Mean	Standard deviation	Mean percentage
20	10.5	2.813	53.33%

Table 3 reveals that the total mean percentage of the pre-test knowledge scores was 53.33% with total mean and standard deviation of 10.5 and 2.813 respectively.

Section III: Analysis of post-test scores of knowledge of adolescent girls regarding menstrual hygiene.

Table 6: Difference between pre - test and post - test scores of knowledge regarding menstrual hygiene. N =30

Area	Mean knowledge scores		Mean difference	SD of difference	‘t’ value	Level of significance
	Pre test	Post test				
Knowledge regarding menstrual hygiene.	10.5	15.6	5.1	0.113	7.17	0.05

t (0.05, 29df) = 2.05

The data presented in Table 6 shows that the mean post-test knowledge scores of adolescent girls regarding menstrual hygiene higher than the mean pre-test knowledge scores. The obtained ‘t’ value is also higher than the table value indicating significant difference between the pre-test and post-test scores regarding menstrual hygiene.

4. Discussion

In pretest knowledge level among 30 respondents, majority 60% (18) had inadequate knowledge score, 33% (10) had moderate knowledge score and only 7% (2) had adequate knowledge. The overall mean value was 10.5 with standard deviation 2.813. The post-test knowledge scores among 30

Table 4: Assessment of post-test knowledge scores regarding menstrual hygiene N =30

Knowledge level	category	Respondents	
		frequency	percentage
Inadequate	≤50% score	0	00
Moderate	51-75% score	13	43
Adequate	≥ 75% score	17	57

The data in Table 4 shows that majority of the respondents 57% (17) had adequate knowledge, 43% (13) had moderate knowledge and none of them had inadequate knowledge on menstrual hygiene.

Table 5: Analysis of post-test scores of knowledge regarding menstrual hygiene N =30

Maximum possible score	Mean	Standard deviation	Mean percentage
20	15.6	2.7	77.83

Table 5 reveals that the total mean percentage of the post-test knowledge scores was 77.83% with total mean and standard deviation of 15.6 and 2.7 respectively.

Section IV: Evaluation of the effectiveness of structured teaching Programme on knowledge of adolescent girls regarding menstrual hygiene.

respondents revealed that majority 57% (17) had adequate knowledge score, 43% (13) had moderate knowledge and no subject had inadequate knowledge. In the post- test the overall mean value was 15.6 with standard deviation 2.7. In the present study, the overall posttest mean score was 15.6 (77.83%) with standard deviation 2.7. and the respondents post-test knowledge score were significantly higher than the mean pre-test knowledge scores 10.5 (53.33%) with standard deviation 2.813. The overall ‘t’ value was 7.17. which is higher than table value 2.05, which shows the structured teaching Programme was effective at P<0.05 level. The study result revealed that the structured teaching Programme was effective in terms of gain in knowledge of

adolescent girls regarding menstrual hygiene.

The findings of the present study consistent with the findings of the study conducted at Kanniya kumari district of Tamilnadu on Effect of structured teaching Programme on knowledge regarding menstrual hygiene among adolescent girls. The sample of the study was 30 adolescent girls aged 13-15 years. The study findings revealed Pretest level of knowledge regarding menstrual hygiene among adolescent girls shows the mean value 7.53 and standard deviation 2.17. After the structured teaching program the posttest level of knowledge shows the mean 16.83 standard deviation 2.16. When comparing the pretest and posttest level of knowledge regarding menstrual hygiene, Posttest level of knowledge was higher than the pretest level of knowledge.

5. Recommendations

Based on the findings of the study the following recommendations are forwarded

- The study can be replicated on a larger sample; thereby findings can be generalized for a larger population.
- A similar study can be replicated on a sample with different demographic variables.
- A self-instructional module can be prepared to enhance the knowledge of adolescent girls on menstrual hygiene.
- A similar study can be conducted to compare the knowledge level between adolescent girls of rural and urban area.
- Pamphlets or information booklets can be prepared with the guidance of this structured teaching Programme and distributed among adolescent girls to get awareness about menstrual hygiene.

6. Implications of the study

The findings of the study have the following implications in the areas of nursing practice, nursing education, nursing administration, and nursing research.

6.1 Nursing practice

Nurse play a vital role in creating awareness about the importance of menstrual hygiene among the young girls of community. The awareness should begin from the base level of society such as school and colleges which involves adolescents more.

6.2 Nursing education

The students should be able to give education to the adolescent girls regarding menstrual hygiene when they posted in the clinical and community area. The nursing student should be aware of their responsibility to focus on menstrual hygiene as it prevents the risk of reproductive tract of infections and reproductive morbidity. The present study helps the community health nurse to plan for the health education Programme on menstrual hygiene.

6.3 Nursing administration

As an administrator, she can organize mass campaign Programme to the various schools and colleges and village to disseminate or propagate the information regarding menstrual hygiene.

Nurses are challenged to play the role of efficient administrators as well as practitioners. Administration in both private and government sectors should take initiative

action to update the knowledge of health personnel regarding menstrual hygiene by in-service education. Administrators must provide adequate supply of audio visual aids for conducting awareness Programme.

6.4 Nursing research

The importance of research in nursing is to build the body of knowledge. The findings of the present study serve as the basis for the professionals and the students to conduct further studies. In depth research studies on menstrual hygiene among adolescent girls can be conducted in a large scale, to reduce the incidence of reproductive tract infection.

7. Conclusion

This research revealed that the adolescent girls gained adequate knowledge regarding menstrual hygiene after administering a structured teaching program. Adolescent girls constitute about 1/8th total female population in the world. Adolescence in girls as been recognized as a special period in their life cycle that requires specific and special attention. So it is important to promote the health and prevent disease among adolescents, so it is necessary for the adolescent girls to learn about menstrual hygiene and should be practiced by them to make the life healthier.

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