

Effect of Video-Assisted Teaching on Knowledge Regarding Menstrual Hygiene among Girls in Selected Schools

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Abstract

Introduction: The onset of menstruation denotes the landmark event in pubertal development of adolescent girls. It is essential to ensure that the school girls have enough and proper understanding about the hygiene to be maintained during menstruation. A poor knowledge in this aspect may lead to unsafe practices that in turn increase the chances of various Reproductive Tract Infections in the future, leaving risks of far reaching consequences on the wellbeing, dignity and overall health.

Aim: The present study was conducted to assess the effect of Video Assisted Teaching on knowledge regarding menstrual hygiene among girls in selected schools, Kannur District.

Methods: A descriptive & evaluative study, using a self administered questionnaire was conducted. The sample consisted of 234 school girls in classes 5, 6 and 7 in selected schools of Kannur district aged 10-13 years, selected through convenient sampling technique. A structured knowledge questionnaire was used to collect the data. The data were analyzed using descriptive and inferential statistics on the basis of objectives of the study.

Results: The results of the study depicted that there is an increase in the mean scores of knowledge in post test (16.51), than the pre test (12.07), which means that the Video Assisted Teaching was effective.

Discussion: The study conducted among school girls in selected schools revealed that there is lack of knowledge regarding menstrual hygiene among school girls. It is a shocking fact that the girls do not have enough knowledge regarding the most important physiological process of the human female reproductive system. It is the need of the hour to take necessary steps to impart the essential knowledge to the adolescents through various media.

Keyword: Menstrual hygiene; Video Assisted Teaching; Knowledge; School girl.

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INTRODUCTION

Menstruation is a normal physiological process in females at their reproductive age. Menarche is an important biological milestone in a woman's life as it marks the onset of reproductive phase of her life. Menstrual hygiene management is defined as women and adolescent girls using a



clean menstrual management material to absorb or collect blood that can be changed as often as necessary for the duration of menstrual period using soap and water for washing body as required and having access to facilities to dispose of used menstrual management material.¹

A cross-sectional descriptive study was carried out to assess the knowledge and practices of menstrual hygiene among adolescent school girls in rural and urban field practice area of Raja Rajeswari Medical College Hospital, Bangalore, India from November 2013 to March 2014. The sample size of 190 is obtained in each group from rural and urban schools that were randomly selected. Convenient sampling was used to select the samples from the schools. A pre-designed, pre-tested questionnaire was used to collect data and the same was analyzed using Chi square test and Fisher exact test. The results showed that mean age of urban girls was 12.87, whereas of rural girls was 12.85. majority (59.6%) of the urban girls and 29.25 of the rural girls had the source of information regarding menstruation was mothers and family members before attaining menarche, whereas majority (55.85%) of rural girls and 30.7% of urban girls were aware about the source of information was school teacher. It was observed that 59.5% of the adolescent girls were aware about menstruation before attaining menarche, 62.4% of them knew that it was a normal physiological process. Data also revealed that 55.3% of urban girls and 52.6% of rural girls had dysmenorrhoea during menstruation, followed by 27.9% of urban girls and 32.1% of rural girls had backache. Majority (87.9%) of rural girls and 67.4% of urban girls had food taboos. Around 67.45 of urban girls and 50.5% of rural girls used sanitary pads. The researchers concluded that the knowledge and practices regarding menstrual hygiene among adolescent girls is better in rural area compared to urban area.²

Need for the study

A descriptive cross-sectional study was undertaken to find out the prevalence of adequate menstrual hygiene practices among school-going adolescent girls and to find out common problems faced by them. The study was conducted among 302 adolescent girls, aged between 13-19 years, in school of Kanpur, Nagar, selected by convenient sampling. A pre-tested printed questionnaire was used to collect data and it was analyzed using SPSS. The results depicted that the mean age of menarche was 13.23 years and the mean age of samples was 15.69. Nearly 96.68% of the girls used sanitary pads

whereas 3.31% used clothes. About 70.19% of them changed their absorbent material less than two times a day. Around 22.85% of them had dysmenorrhoea, followed by irregular periods in 12.91%, mood swings in 10.93%, and itching in genitalia for 7.95%. Most (98.34%) of them washed their hands with soap and water while only 2.31% didn't wash their perineum after changing pads. The researchers concluded that the knowledge of school-going girls regarding menstrual hygiene was satisfactory due to various Government schemes like MHM.³

A cross-sectional questionnaire based study was conducted in Sharda Vidyalaya in Hyderabad in August 2015, to assess the knowledge and practices of menstrual hygiene among rural and urban school-going adolescent girls. Two hundred and sixty three adolescent girls in the age group of 13-16 years were included in the study, selected using convenient sampling. Data were collected using a pre-designed, pre-tested semi-structured questionnaire and the same were compiled and analyzed using Epi Info™ Version 3.5.1. The results revealed that 58.5% of the girls were aware of menstruation before menarche from different sources like grandmothers, friends, sisters and mothers. Most (85.9%) of them was not aware of the cause of bleeding, only 8.3% knew about the source of menstrual bleeding is uterus and 67.6% knew that it's a natural phenomenon. The data on practices during menstruation revealed that 91.2% of the girls used sanitary pads, 6.8% used clothes and 1.9% used tampons. About 5.3% of the girls changed the absorbent materials once a day, 17.1%, twice a day, 49.15, thrice a day and 28.5% of them changed four times a day. The researchers concluded that the menstrual hygiene knowledge among adolescent girls is poor and the hygiene practiced is often not optimal. The girls should be educated about the facts of menstruation and development of secondary sexual characteristics and also proper hygienic practices during menstruation.⁴

The challenges that menstruating girls and women face encompass more than a basic lack of supplies or infrastructure. While menstruation is a normal and healthy part of life for most women and girls, in many societies, the experience of menstruators continues to be pathetic by cultural taboos and discriminatory social norms. This results in lack of information about menstrual hygiene, thus leading to unhealthy and unsafe practices, which can even cause severe consequences in their future life. It should be viewed as the responsibility of everyone to support the women and girls during their periods. Research has shown that approaches that can effectively

combine information and education with appropriate infrastructure and menstrual products, in a conducive policy environment, are more successful in avoiding the negative effects of poor menstrual hygiene management. In short, a holistic approach is needed with collaborative & multi-dimensional responses.¹

Problem statement

Effect of video-assisted teaching on knowledge regarding menstrual hygiene among girls in selected schools, Kannur district, Kerala.

The objectives of the study are to;

- Assess the knowledge of menstrual hygiene among schoolgirls.
- Administer video assisted teaching on menstrual hygiene.
- Assess the efficacy of video assisted teaching on menstrual hygiene.
- Associate between knowledge & selected demographic variables.

Hypotheses

All hypotheses will be tested at 0.05 level of significance

- **H₁:** There will be significant difference between the mean pre test and post test knowledge scores on menstrual hygiene among the school girls.
- **H₂:** There will be significant association between the pre test knowledge and selected demographic variables.

Assumptions

The study assumes that:

- Girls will have average knowledge regarding menstrual hygiene.
- Menstrual hygiene practices of girls will be directly related to their knowledge regarding menstrual hygiene.
- The video assisted teaching will improve the knowledge of school girls.
- Improved knowledge will lead to better practices of menstrual hygiene.

MATERIALS AND METHODS

Research Approach

A descriptive and evaluative approach was adopted for this study to assess the effect of Video Assisted

Teaching on knowledge regarding menstrual hygiene among girls in selected schools in Kannur district.

Research design

Pre-experimental one group pre-test post-test design (O1 X O2) was adopted for this study.

Setting of study

The present study was conducted in selected upper primary schools, Taliparamba, Kannur.

Variables

In this study, independent variable was Video Assisted Teaching on menstrual hygiene, dependent variable was the knowledge of school girls regarding menstrual hygiene and the extraneous variables were age, year of study, religion, place of residence, education and occupation of father & mother and previous knowledge of the girls regarding menstruation and menstrual hygiene.

Sample and sampling technique

The sample in this study consists of 234 school girls in selected upper primary schools, selected through convenient sampling technique.

Inclusion criteria

- Upper primary school girls who were aged between 10-13 years of age
- Girls of classes 5, 6 and 7
- School girls who attained menarche
- School girls who were available at the time of data collection and during the video assisted teaching

Exclusion criteria

- Upper primary school girls who are not in the age group of 10-13 years
- Upper primary school girls who have not attained menarche
- School girls who were not available at the time of data collection and during the video assisted teaching

Description of the tool

Part A: Baseline characteristics, consisted of 10 items, related to the baseline characteristics of the school girls.

Part B: Preliminary assessment, that included certain aspects of menstrual cycle like the age at menarche, presence of dysmenorrhoea, duration of bleeding and the type of absorbent material used during menstruation.

Part C: Structured knowledge questionnaire, consisted of 20 items, covering the following areas; definition, importance and phases of menstrual cycle and menstrual hygiene and its various aspects. Each correct answer was given a score of 1 and the total score was 20.

RESULTS

Preliminary assessment details

All the girls who participated in the research had attained menarche. Regarding age at menarche, more than half (50.42%) attained menarche at 11

years of age, whereas 32.5% at 12 years. About 15.38% of them attained menarche at 10 years and very little proportion (1.7%) attained at 13 years. Among the 234 girls, majority (61%) experienced dysmenorrhoea and 39% didn't have any pain during menstruation. Regarding duration of menstrual bleeding, most (72.2%) of the samples had 4-6 days of bleeding while 24.4% had more than 6 days. Very little proportion (3.4%) had bleeding less than 3 days. Among the study samples, most (91.9%) of the girls used sanitary napkins while 4.7% used clothes. Among the girls, only 2.13% used menstrual cups and 0.85% used both clothes and napkins. Very little percentage (0.42%) used tampons.

Table 1: Comparison of grading of pre test - post test knowledge scores of school girls on menstrual hygiene

N=234

Grading	Pre - test		Post - test	
	Frequency	Percentage	Frequency	Percentage
Poor	6	2.6	0	0
Average	56	23.9	5	2
Good	147	62.8	57	24
Very good	25	10.7	172	74

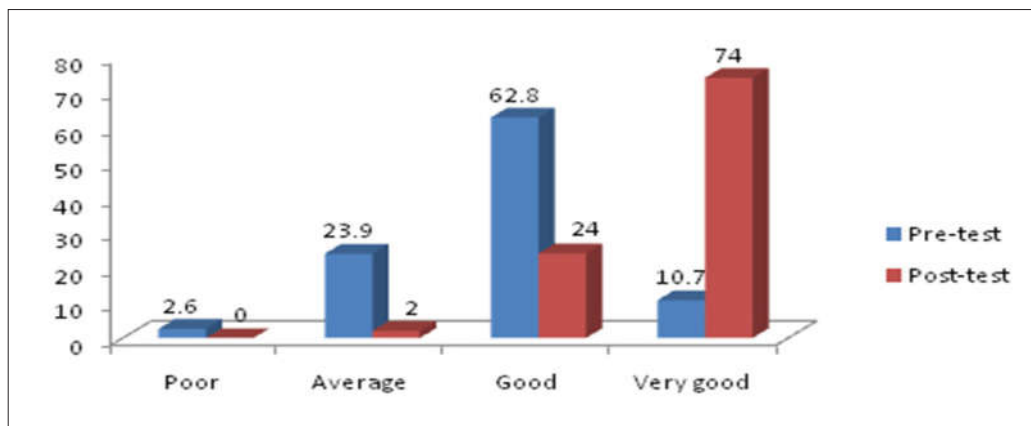


Fig. 1: Comparison between pre and post-test knowledge on menstrual hygiene

Data in the above diagram depict the effectiveness of Video Assisted teaching on knowledge of school girls regarding menstrual hygiene manifested by post test knowledge scores of the girls. Pre-test

revealed that there were 2.6% of subjects with poor knowledge while in post test; there was none having poor knowledge. In pre-test, 10.7% had very good knowledge which increased to 74% in post test.

Table 2: Range, mean, median and standard deviation of pre and post test knowledge scores of school girls regarding menstrual hygiene

N =234

Knowledge level	Range	Mean	Median	Standard deviation
Pre-test	03 - 19	12.07	12	2.858
Post-test	08 - 20	16.59	17	2.471

Maximum score - 20

Data in the above table show that the range, mean, median and standard deviation of pre-test knowledge scores were 03-19, 12.07, 12 and 2.858

respectively. The mean knowledge score in the post test was increased to 16.59 and standard deviation to 2.471 with a post test knowledge score range of 08-20.

Table 3: Mean, mean difference, standard deviation and 't' value of pre and post test knowledge scores of school girls on menstrual hygiene

Group	Mean knowledge score		Mean difference	Standard deviation		't' value	'p' value
	Pre test	Post test		Pre test	Post test		
	School girls	12.07		16.59	4.52		

N=234

$t_{(233)}=1.61; p<0.05$ *significant

The significance of difference between the mean pre test and post test knowledge scores were analyzed using paired 't' test. The following null hypothesis was formulated to test the significance.

H₀₁: There will be no significant difference between the mean pre-test & post-test knowledge scores of the school girls regarding menstrual hygiene at 0.05 level of significance.

Data in the above table describe that the mean pre test knowledge score was 12.07. In the post test, there was a significant gain as denoted by the mean knowledge score 16.59. The computed 't' value ($t_{233} = 18.28$) is greater than the table value ($t_{233}=1.61$) at 0.05 level of significance. Hence, the null hypothesis was rejected and the research hypothesis was accepted, and it was inferred that the mean difference between pre and post test knowledge scores was statistically significant. This indicated that the Video Assisted teaching was effective in increasing the knowledge of school girls on menstrual hygiene.

between the pre test knowledge scores and selected demographic variables (age, year of study, religion, place of residence, education and occupation of father and mother and previous knowledge of samples regarding menstruation and menstrual hygiene).

Data in the above table depicts that there was no significant association between pre test knowledge scores and selected demographic variables like year of study $df(4)=9.49$, calculated value = 0.022, religion $df(3) = 7.81$, calculated value = 0.001, place of residence $df(3) = 7.81$, calculated value = 0.391, occupation of parents $df(4) = 9.49$, calculated value = 1.002 and source of information $df(2) = 5.99$, calculated value = 0.042 except demographic variables like age of the subjects $df(2) = 5.99$, calculated value = 8.72, education of parents $df(4) = 9.49$, calculated value = 11.34, and previous knowledge $df(2)= 5.99$, calculated value = 9.054. Therefore, the null hypothesis was rejected and the research hypothesis was accepted.

Table 4: Association between pre-test knowledge scores and selected demographic variables

Variable	df	Chi square value	Inference
Age	2	8.72	Significant
Year of study	4	0.022	Not significant
Religion	3	0.001	Not significant
Place of residence	3	0.391	Not significant
Education of parents	4	11.34	Significant
Occupation of parents	4	1.002	Not significant
Previous knowledge	2	9.054	Significant
Source of information	2	0.042	Not significant

To test the association between the two, the following null hypothesis was formulated.

H₀₂: There will be no significant association

DISCUSSION

The results obtained from the study helped the researchers to drive certain implications for nursing profession. This study emphasizes the need of health education and awareness sessions on menstrual hygiene to school children. Nursing students can also educate and impart information on the subject during their clinical and community practical. Nurses as administrators can play a vital role in the education of the public regarding the importance of menstrual hygiene and the ill effects of poor hygiene. The findings of the study have a great scope in the field of research and based on the recommendations, further studies can be undertaken. Practicing nurses are at greater scope to impart education and demonstrate care to the wide variety of people they meet daily. They can provide direct care to people of various age groups

and make them aware about the need of proper menstrual hygiene.

CONCLUSION

Menstrual hygiene management (MHM) is essential to the wellbeing and empowerment of adolescent girls. On a given day, more than 300 million women worldwide are menstruating as per a WHO report. In total, an estimated 500 million lack access to menstrual products and adequate facilities for menstrual hygiene management. To effectively manage their menstruation, girls need access to water, sanitation and hygiene facilities, affordable and appropriate menstrual hygiene materials and above all, clear and proper information on good and safe practices and a supportive environment where they can manage the situation without embarrassment & stigma.¹

Ethical clearance: The ethical clearance of this study was obtained from the Institutional Ethical Committee (IEC) of Lourde College of Nursing.

Source of funding: Self-funded project within the Institution.

Conflict of Interest: The authors declare that there is no conflict of interest.

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