



A Study To Assess The Effectiveness Of Structured Teaching Program With Demonstration On Knowledge Regarding Latest Method Of Menstrual Hygiene Among Early Adolescent Girls In Selected School Of Surat City, Gujarat.

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Abstract

Background: Adolescence is a unique stage of human development and an important time for laying the good health Adolescent girls face different physical, sexual and psychological changes associated with growth, maturity and menstruation, Menstruation, or period, is normal vaginal bleeding that occurs as part of a woman's monthly cycle. Menstrual Health and Hygiene (MHH) is essential to the well-being and empowerment of women and adolescent girls. To effectively manage their menstruation, girls and women require access to water, sanitation and hygiene (WASH) facilities, affordable and appropriate menstrual hygiene materials, information on good practices, and a supportive environment where they can manage menstruation without embarrassment or stigma. A study was designed to evaluate the effectiveness of structured teaching program with demonstration on Knowledge regarding the latest method of menstrual hygiene among early adolescent girls in selected school of Surat city, Gujarat. with the objectives to 1) Assess the pre-test level of knowledge regarding latest method of menstrual hygiene among early adolescent girls in selected school of Surat city. 2)To assess the effectiveness of structured teaching program on knowledge regarding latest method of menstrual hygiene among early adolescent girls in selected school of Surat city. 3)To find out association between pre-test level of knowledge regarding latest method of menstrual hygiene among early adolescent girls with selected demographic variable.

Methods: A Quantitative Research approach and pre-experimental one group pre-test post- test research design with non-probability convenient sampling technique was used to collect data from 60 early adolescent girls in selected school of Surat city, Gujarat. A demographic tool, structured knowledge questionnaire was used to describe the findings.

Result: Analysis and interpretation of data collected from 60 samples, on latest method of menstrual hygiene among early adolescent girls and its interpretation early adolescent girls of selected primary schools of Surat. Knowledge was assessed by using descriptive and inferential statistics. The data gathered were summarized in the master sheet. The findings related to pre-test knowledge score revealed that 17(28.33%) of subjects had poor knowledge, 43 (71.67%) had average knowledge and 0(0%) had good knowledge regarding menstrual hygiene. In post-test, the knowledge score showed that 45 (75 %) of subjects had average knowledge and 3(5%) had good knowledge and 12(20%) subjects had poor knowledge regarding menstrual hygiene. This shows that the structured teaching programme with demonstration improved the knowledge level of adolescent girls.

The paired t-test results $t=10.75$. Since $P\text{-value}=1.6771 > 0.05$ reveals the effectiveness of the Awareness package. The calculated value is higher than the tabulated value. The study aims to assess the knowledge and evaluate the effectiveness of structured teaching program with demonstration on Knowledge regarding the latest method of menstrual hygiene among early adolescent girls in selected school around 60 samples were selected using Non probability purposive sampling technique. Data was generated and analyzed by descriptive and inferential statistics.

The paired 't' test value of the study was 10.75 at the significance of 0.05. The calculated value is higher than tabulated ($p\text{-value}$) = 1.6771. This shows highly effectiveness of the structured teaching programme among selected samples.

the effectiveness of the effectiveness of structured teaching program with demonstration among Early Adolescent Girls regarding latest method of menstrual hygiene. The Mean difference of pre-test and post-test was 2.69. The calculated 't' value is 10.75, which is more than tabulated 'p' value (1.671) at 59 degree of freedom and the level of significance is 0.05, thus we accept research hypothesis and infer that there is effect of structure teaching programme with demonstration regarding latest method of menstrual hygiene among early adolescent girls.

Association between pre-test knowledge score with their socio demographic variables regarding latest method of menstrual hygiene among early Adolescent Girls in selected school of Surat. Hence, it was assessed that. The calculated value of variables such as age showed significant association with pre-test knowledge score. Remaining variables like maternal education, occupation of family head, religion, income of family, area of residence and source of information showed no significant association with pre-test knowledge score regarding menstrual hygiene.

Conclusion: The study was conducted to evaluate the effectiveness of structured teaching program with demonstration on Knowledge regarding the latest method of menstrual hygiene among early adolescent girls in selected school of Surat city, Gujarat. The finding of the study showed that structured teaching program with demonstration on the latest method of menstrual hygiene was effective among early adolescent girls.

Association between pre-test knowledge score and socio demographic variables regarding latest method of menstrual hygiene among early adolescent girls in selected school of Surat. Hence, it was assessed that, age does have significant association in the study.

Keyword: Evaluate, Effectiveness, Knowledge, Menstrual hygiene, Early adolescent.

Introduction

Menstrual Health and Hygiene (MHH) is essential to the well-being and empowerment of women and adolescent girls. To effectively manage their menstruation, girls and women require access to water, sanitation and hygiene (WASH) facilities, affordable and appropriate menstrual hygiene materials, information on good practices, and a supportive environment where they can manage menstruation without embarrassment or stigma. According to the WHO/UNICEF Joint Monitoring Programme 2012, menstrual hygiene management is defined as: "Women and adolescent girls are using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary, using soap and water for washing the body as

required, and having access to safe and convenient facilities to dispose of used menstrual management materials. They understand the basic facts linked to the menstrual cycle and how to manage it with dignity and without discomfort or fear.

Menstrual Health and Hygiene (MHH) is essential to the well-being and empowerment of women and adolescent girls. To effectively manage their menstruation, girls and women require access to water, sanitation and hygiene (WASH) facilities, affordable and appropriate menstrual hygiene materials, information on good practices, and a supportive environment where they can manage menstruation without embarrassment or stigma. According to the WHO/UNICEF Joint Monitoring Programme 2012, menstrual hygiene management is defined as: “Women and adolescent girls are using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary, using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials. They understand the basic facts linked to the menstrual cycle and how to manage it with dignity and without discomfort or fear.”

The challenges that menstruating girls, women, and other menstruators 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 constrained by cultural taboos and discriminatory social norms. The lack of information about menstruation leads to unhygienic and unhealthy menstrual practices and creates misconceptions and negative attitudes. Poor menstrual hygiene can pose serious health risks, like reproductive and urinary tract infections which can result in future infertility and birth complications. Neglecting to wash hands after changing menstrual products can spread infections, such as hepatitis B and thrush. Studies have found that giving out sanitary pads to girls leads to a significant reduction in sexually transmitted infections and bacterial vaginosis. The lack of means for hygienic management of menstruation can cause discomfort and psychological stress and adds to the shame and sometimes depression that women and girls experience because of menstruation-related taboos and stigma. Promoting menstrual health and hygiene is an important means for safeguarding women’s dignity, privacy, bodily integrity, and, consequently, their self-efficacy.

The school setting is ideal for this study as it provides a platform to engage with students from various socio-economic backgrounds. The research will be conducted with a mixed-methods approach, utilizing both qualitative and quantitative data collection methods. By combining surveys, interviews, and focus group discussions, we seek to gain comprehensive insights into adolescent girl’s knowledge latest method of menstrual hygiene. This research statement outlines the significance of addressing the issue of lack of knowledge regarding importance of menstrual hygiene.

High prevalence of unsafe/variable menstrual practices among adolescents. National survey analyses show a substantial proportion of adolescent girls still use non-hygienic methods or cloth and have gaps in safe practices — so local assessment remains important.

Structured Teaching Program (STP) plus demonstration is a promising, practical strategy. Multiple published Indian intervention studies report significant post-teaching improvements in knowledge and practice after STP or demonstration-based sessions — justifying testing an STP adapted to Surat’s school context

From the above facts it is clear that knowledge regarding latest methods of menstrual hygiene is important aspect. Keeping these facts the researcher felt the needs.

Materials and Methods

A study was conducted to evaluate the effectiveness of a structured teaching programme with demonstration on knowledge regarding the latest method of menstrual hygiene among early adolescent girls in a selected school. In the present study, a pre-experimental one group pre-test and post-test research design was adopted to assess the knowledge regarding the latest method of menstrual hygiene among early adolescent girls. Permission was obtained from A formal letter of permission was obtained from Kiran Nursing College, Vadod,

Surat District The study was conducted in a Shraswati school, Ashwinikumar and the sample consisted of 60 early adolescent girls(10-14 years), The participants were selected by using non- probability convenience sampling. Prior permission was obtained from the concerned school authority before conducting the study. Informed consent was obtained from the participants before data collection, explaining the importance of study and the data collection procedure from 60 subjects who met the inclusion criteria were taken. Inclusion criteria for the study were, Parents who are willing to participate, Early adolescent girls (age between 10 to 14 year) of selected school Surat, Girls who knows Gujarati and Hindi language. Exclusion criteria were Girls who were not present during the time of study The pre-test was conducted on 06/12/2025 by using a structured knowledge questionnaire to assess the baseline knowledge regarding the latest method of menstrual hygiene. After the pre-test, the structured teaching programme with demonstration was administered to the participants by the investigator. The post-test was conducted after 7 days on 13/12/2025 by using the same structured knowledge questionnaire to assess the effectiveness of the teaching programme. The data were collected using Socio Demographic tool it consists 08 items, self-structured knowledge questionnaire for knowledge regarding Latest menstrual hygiene technique among early adolescent girls in a selected school of Surat City. Correct response was given a score of “1” and wrong response was “0”. It categories in 1-33% -poor, 34-66% -average, 67-100% - Good. The obtained data were analyzed in the terms of the objectives of the study using descriptive and inferential statistics. Socio demographic variables were assessed by using the frequency and percentage distribution using mean and standard deviation. The inferential analysis like calculated t-test was used to assess the knowledge and evaluate the effectiveness of the structured teaching program with demonstration on knowledge regarding the latest method of menstrual hygiene among early adolescent girls in selected school of Surat city, Gujarat. Chi square test (χ^2) was used to find out the association of knowledge early adolescent girls age 10 to 14 years regarding latest method of menstrual hygiene with their selected socio-demographic variables respectively.

Results

Demographic details of the samples:

In this study researcher found that majority of the sample **58.33%** was in the age group of 13-13.9 years. **23.33%** was in the age group of 12 to 12.9. **13.39%** was in the age group of 10 to 10.9. and **5%** were in 11 to 11.9 years of age group. Majority **51.67%** maternal completed secondary education, **36.67%** were primary educated, **8.33%** were graduate and **3.33%** maternal were illiterate. As the occupation of head of family majority **71.67%** were professional, **15%** were clerical farmer, **5%** were semi-professional and skilled worker and least **3.33%** were unemployed. As socioeconomic status majority **56.67%** belongs to 10000-30000, followed **26.67%** belongs to less than 10000, **10%** belongs to 31000-50000 and least **6.67%** belong to above 50000. Majority **93.33%** samples were living in the urban area and least **6.67%** were living in the rural area. As the majority **98.33%** belongs to Hindu, least **1.67%** belongs to other religion. Results shows that majority **91.66%** girls used disposable sanitary pads, **6.67%** girls used other products and least **1.67%** girl used cloth. As per source of previous knowledge of menstrual hygiene majority **66.67%** were belongs to parents or guardians, **30%** belongs to school education, least **1.67%** belongs to social media and no education received.

Table:1. Assess the knowledge score among adolescent girls regarding latest methods of menstrual hygiene.

SCORE	GRADE	PRE-TEST		POST-TEST	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Below 15	Poor	17	28.33%	12	20%
15 to 25	Average	43	71.67%	45	75%
Above 25	Good	00	00%	03	5%

The present study shows that **71.67 %** (43 out of 60) had average knowledge, **28.33%** (17 out of 60) had poor knowledge and **00%** (0 out of 60) had good knowledge regarding latest methods of menstrual hygiene in adolescent girls. About 60 sample are selected by using non-probability convenience technique for study. Data was generated and analyzed by descriptive and inferential statistics. The results of the study show that about his **20%** (12 out of 60) has poor knowledge, **75%** (45 out of 60) has average knowledge and **20%** (5 out of 60) girls have good knowledge about latest methods of menstrual hygiene.

A experimental one group pretest post-test study was conducted to assess knowledge of latest methods of menstrual hygiene in adolescent girls. About 60 parents were selected by using Non probability convenience sampling technique. Data was generated and analyzed by descriptive and inferential statistics. The results of the study shows that about **20%** has poor knowledge, **75%** has average knowledge and **5%** girls has good knowledge about latest methods of menstrual hygiene.

Table 2: Evaluate the effectiveness of the structure teaching programme regarding the latest methods of menstrual hygiene on adolescent girls. Mean, standard deviation with their percentage (%) of pre- test and post-test. (n=60)

Knowledge score	Mean	mean difference	Standard deviation	Calculated value	Tabulated value	Level of significance
Pre-test	15.46	2.69	3.45	10.75	1.6771	0.05
Post-test	18.15		3.55			

The present study shows the effectiveness of the program on knowledge regarding latest methods of menstrual hygiene in adolescent girls.

The paired t-test results $t=10.75$. Since $P\text{-value}=1.6771 > 0.05$ reveals the effectiveness of the structure teaching programme. The calculated value is higher than the tabulated value. The study aims to assess the knowledge and evaluate the effectiveness of the structure teaching programme on knowledge regarding latest methods of menstrual hygiene in adolescent girls around 60 samples were selected using Non probability convenience sampling technique. Data was generated and analyzed by descriptive and inferential statistics.

The paired 't' test value of the study was 10.75 at the significance of 0.05. The calculated value is higher than tabulated ($p\text{-value}$) = 1.6771. This shows highly effectiveness of the structured teaching programme among selected samples.

The table shows the pre-test knowledge of total were 15.46 mean, 3.45 standard deviation.

The post-test knowledge shows that participants having adequate knowledge which were 18.15 mean and 3.55 standard deviation.

Association between pretest knowledge score and socio demographic variables:

For age group with knowledge scores, the calculated value of chi square is 12.90 was more than 12.59, the table value of chi square at 6 degree of freedom and 0.05 level of significance, therefore age of samples was significant with knowledge score.

For maternal education with knowledge scores, the calculated value of chi square is 4.807 was not more than 15.51, the table value of chi square at 8 degree of freedom and 0.05 level of significance, therefore maternal education of samples was non -significant with knowledge score.

For occupation of head of family group with knowledge scores, the calculated value of chi square is 10.31 was not more than 15.51, the table value of chi square at 8 degree of freedom and 0.05 level of significance, therefore occupation of head of family of samples was non -significant with knowledge score.

For socio economic data group with knowledge scores, the calculated value of chi square is 6.827 was not more than 12.59, the table value of chi square at 6 degree of freedom and 0.05 level of significance, therefore socio economic data of samples was significant with knowledge score.

For area of residence for group with knowledge scores, the calculated value of chi square is 0.326 was not more than 9.45, the table value of chi square at 4 degree of freedom and 0.05 level of significance, therefore area of residence samples was non -significant with knowledge score.

For religion group with knowledge scores, the calculated value of chi square is 2.037 was not more than 12.59, the table value of chi square at 6 degree of freedom and 0.05 level of significance, therefore religion of samples was non -significant with knowledge score.

For type of maternal hygiene product used by sample with knowledge scores, the calculated value of chi square is 5.355 was not more than 9.49, the table value of chi square at 4 degree of freedom and 0.05 level of significance, therefore type of maternal hygiene product used by samples was non -significant with knowledge score.

For sources of previous knowledge of menstrual hygiene, the calculated value of chi square is 1.318 was not more than 15.51, the table value of chi square at 8 degree of freedom and 0.05 level of significance, therefore sources of previous knowledge of menstrual hygiene samples was non -significant with knowledge score.

The present study shows that maternal education, occupation of head of family, socio-economic data, area of residence, religion, type of menstrual hygiene product used by sample, source of previous knowledge of menstrual hygiene does not have any significant association. Other demographic variables such as age group does have significant association in the study.

Discussion**Description of socio-Demographic variables of adolescent girls:**

In this study researcher found that majority of the sample **58.33%** was in the age group of 13-13.9 years. **23.33%** was in the age group of 12 to 12.9. **13.39%** was in the age group of 10 to 10.9. and **5%** were in 11 to 11.9 years of age group. Majority **51.67%** maternal completed secondary education, **36.67%** were primary educated, **8.33%** were graduate and **3.33%** maternal were illiterate. As the occupation of head of family majority **71.67%** were professional, **15%** were clerical farmer, **5%** were semi-professional and skilled worker and least **3.33%** were unemployed. As socioeconomic status majority **56.67%** belongs to 10000-30000, followed **26.67%** belongs to less than 10000, **10%** belongs to 31000-50000 and least **6.67%** belong to above 50000. Majority **93.33%** samples were living in the urban area and least **6.67%** were living in the rural area. As the majority **98.33%** belongs to Hindu, least **1.67%** belongs to other religion. Results shows that majority **91.66%** girls used disposable sanitary pads, **6.67%** girls used other products and least **1.67%** girl used cloth. As per source of previous knowledge of menstrual hygiene majority **66.67%** were belongs to parents or guardians, **30%** belongs to school education, least **1.67%** belongs to social media and no education received.

Section-2: Description of pre-test and post-test knowledge score regarding latest methods of menstrual hygiene among adolescent girls.

The findings related to pre-test knowledge score revealed that 17(28.33%) of subjects had poor knowledge, 43 (71.67%) had average knowledge and 0(0%) had good knowledge regarding menstrual hygiene. In post-test, the knowledge score showed that 45 (75 %) of subjects had average knowledge and 3(5%) had good knowledge and 12(20%) subjects had poor knowledge regarding menstrual hygiene. This shows that the structured teaching programme with demonstration improved the knowledge level of adolescent girls.

Section-3: Effectiveness of structured teaching programme with demonstration on knowledge regarding latest methods of menstrual hygiene among adolescent girls.

The effectiveness of the structured teaching programme with demonstration was assessed by comparing pre-test and post-test knowledge scores. The mean pre-test score was 15.46 and mean post-test score was 18.15. The mean difference between pre-test and post-test score was 2.65. The calculated 't' value was 10.75 which is more than the tabulated 'p' value 1.671 at 59 degree of freedom. Hence, the research hypothesis was accepted and the structured teaching programme with demonstration was found to be effective in improving knowledge regarding latest methods of menstrual hygiene among adolescent girls.

Section-4: Association between pre-test knowledge score of adolescent girls with selected demographic variables

The association between pre-test knowledge score and selected socio-demographic variables was analyzed. The calculated value of variables such as age showed significant association with pre-test knowledge score. Remaining variables like maternal education, family head occupation, religion, area of residence, income of family and source of information showed no significant association with pre-test knowledge score regarding menstrual hygiene.

Conclusion:

The study was conducted to evaluate the effectiveness of structured teaching program with demonstration on Knowledge regarding the latest method of menstrual hygiene among early adolescent girls in selected school of Surat city, Gujarat. This chapter deals with analysis and interpretation of data collected from 60 samples, on Knowledge regarding the latest method of menstrual hygiene among early adolescent girls in selected school of Surat. Knowledge was assessed by using descriptive and inferential statistics. The data gathered were summarized in the master sheet. Findings revealed that the mean post-test knowledge score was higher than the mean pre-test. Paired t-test was used to analyze the effectiveness of structured teaching program with demonstration on Knowledge regarding the latest method of menstrual hygiene. Findings show a gain in knowledge which was significant at 0.05 level of significance. Hence, it was assessed structured teaching program with demonstration on Knowledge regarding the latest method of menstrual hygiene was effective among early adolescent girls in selected school.

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