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A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge And Expressed Practice Regarding Sanitary Napkin Among School Girls Those Who Attained Menarche At A Selected School In Dehradun.

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ABSTRACT

The objectives were, to assess the knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche, to evaluate the effectiveness of structured teaching program on knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche and to associate the selected demographic variables and health related variables with the level of knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

A quantitative research approach of pre-experimental with one group pre and post-test design was chosen for this study. By using purposive sampling technique, a total of 50 samples were included for the study. The structured teaching program was given by researcher. Pre and post test was conducted by structure questionnaire. Data were recorded and coded. The data analysis was done by using descriptive and inferential statistics. The result revealed that there was a statistically significant difference between pre and post-test knowledge and expressed practice scores regarding sanitary napkin among school girls at level $P<0.001$. This study implied that creating awareness regarding sanitary napkin will prevent the occurrence of reproductive tract infection among school girls and promote their health.

Keywords: Structured Teaching Program, School girls, Knowledge, Expressed Practice.

INTRODUCTION

BACKGROUND OF THE STUDY

School life is the first experience of living outside the home which mould the school children to prepare themselves to lead a life, according to their growth and development and changing needs of the society. School is the best forum for the students to acquire knowledge, skill, and attitude in various aspects of their life style pattern. The health of the child is the basement for healthy nation. In the school life the concept of prevention and health promotion are inevitable to bring the child with a good health. The personal hygiene is the fundamental step for the children to learn in order to prevent diseases and promote health.

Each child undergoes many changes when the growth and development take place over a period of time. These development changes are common among both girls and boys; one of such physiological changes among girl is attaining menarche. It marks beginning of a multitude of physical, physiological, and psychological changes in the lives of the adolescent girls. Generally, menarche indicates the girl's maturity and the read in less for marriage and sexual activity.

According to their port by **UNICEF (2016)** there are 243 million adolescence comprising 20% of total population in India, which clearly shows that India has got more young people. It includes 10% of school girls aged between 12 to14years and majority of them lives, in rural areas. They do not know to take care of themselves in hygienic way during the time of menstruation which adversely affects their health.

When the girl attains menarche, menstrual hygiene is the real challenge for them to practice. The good menstrual hygiene prevents reproductive tract infection among girls which ultimately promote the reproductive health. The current trend of antenatal care starts from puberty. This concept was emphasized by **Kumari (2014)** who conducted a study among girls regarding menstrual hygiene revealed that only few girls were using sanitary napkin and many did not practice the same.

Menstrualhygieneinvolvesthepersonalhygienemeasurestobeadoptedbywomenandadolescent girls, it includes the use of clean material to absorb or collect menstrual blood and these materials can be changed in privacy as often as necessary for the duration of menstruation. Menstrual hygiene management also includes, using soap and water for washing the body as required and having access to facilities to dispose of used menstrual management material. To highlight the menstrual hygiene awareness among girls 28th May is observed as menstrual hygiene day, which aims to break taboos and raise awareness about the importance of good menstrual hygiene management for women and adolescent girls worldwide.

Thus, menstrual hygienic practices are greatly emphasized among school girls in order to promote the reproductive health, which also improves the girls self-image and promote their attitude towards good reproductive health. It also avoids the embarrassment of staining their cloth and promote their self-respect among their friends. Good menstrual hygiene enhances their confidence and promote the regular school attendance and prevent environmental pollution.

The school girls are always receptive to learn new phenomenon and practice the same with favorable attitude when the menstrual hygiene is being taught by school health officer. The school girls will learn swiftly and that bring good behavioral change towards the practice of menstrual hygiene. Hence the school setting is an ideal place for the school health officer to create awareness regarding menstrual hygiene among schoolgirls. Many gynecologists believe that sanitary napkin can act as a precautionary measure to prevent reproductive tract infection. The sanitary napkin is one of the appropriate measures to be practiced by school girls during the time of menstruation. This is substantiated by the finding of **Jimmy Wales (2013) et.al.** This highlighted that sanitary napkins prevent reproductive tract infection and reduce the risk of cervical cancer.

The Role of community health officer in school health is important. It comprises imparting knowledge to the school girls about the importance of sanitary napkin and promote the menstrual hygiene practices. When the school girl is educated, she propagates the information to her family members, friends and to the society. She also influences her friends to practice good menstrual hygienic measures. It promotes the dignity of the girls and women in the society. Thus, the community health officer plays a major role to empower the school girls with adequate knowledge on sanitary napkin during menstruation, which enhances self-esteem and academic performance. Therefore, it helps them to develop themselves comprehensively and that promote their quality of life.

NEED FOR THE STUDY

Menstrual hygiene is important to be practiced by the school girls to promote their health and prevent illness. Inadequate menstrual hygiene management relates to 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 lead to several problem among school girls which include dropped out from the school, inability to continue the education and reduction of self-esteem. It occurs because the school girls do not practice menstrual

hygiene and don't have accessibility for sanitary napkin. The biggest barrier to adopt the quality of sanitary napkin in India are lack of affordability and accessibility as reported by **Inderjeet Singh (2013)** there are about70% of school girls and their family cannot afford sanitary napkin. It is further supported by the report of **Times of India (2014)** which unveiled that 50% of the school girls who dropped out the school in secondary classes are due to lack of sanitary napkin, coupled with lack of separate toilet facilities and water resources within the school campus. Thus, the lack of knowledge on menstrual hygiene practice and sanitary napkin are the major cause for absenteeism among school girls.

The significant problems among school girls which are greatly ignored in schools, in developing countries are lack of facilities for disposal of menstrual waste. There are about only 46% of school girls have accessibility to water, sanitation at school. According to **Global Statistics by WHO (2015)** often school toilets for girls don't have bins for menstrual waste collection with the result that the napkin may be spread all around the school compound area, these pollutes the environment and also causes embarrassment for the school girls. Many studies have reported that the girls, who were unable to afford sanitary napkin they miss school in order to avoid the embarrassment of staining the clothes.

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 infections.

Another study conducted by **Dr. M.Tripurasundari (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. Worldwide many school girls do not have accessibility to toilet facilities, privacy and menstrual hygienic management issues are greatly ignored by professionals in the health and education sector too.

Another major factor that is to be considered among school girls is early menarche, which is the growing trend across Globe especially in urban areas. Since many school girls attain menarche between 12 to 14 years, they don't have adequate knowledge about the onset of menstruation, physical and physiologically development. In addition to their early puberty may cause emotional pressure among school girls which may reduce their academic performance. The study which conducted by **Esreal Ayele et.al. (2015)** revealed that the yearly menarche is a major cause for poor menstrual hygienic practices. A study conducted by **Dr. Neelam Singh,**

Rierdan(2013)have reported that's school students don't have adequate knowledge and practice on menstrual hygiene. Further **Rierdan (2013)** concluded that only 40.6% of girls have knowledge regarding menstruation and among them only 12.9% of school girls practice the same. Thus, these findings paved the way for the investigator to impart knowledge regarding sanitary napkin during menstruation, thereby to enhance the practice of menstrual hygiene.

It is evident from the above information that many school girls aged between12 to14years don't have awareness regarding sanitary napkin as a menstrual hygienic practice, and they are not practicing good menstrual hygiene.

Hence it is important for community health officer to impart knowledge about sanitary napkin during menstruation and help them to adhere to their menstrual hygienic practices.

Menstrual practices are still clouded by taboos and socio culture restrictions result in adolescent girls remaining ignorant of the scientific facts and hygiene health practices, which sometimes result into adverse health outcomes. Hygiene practice is neglected by girls especially in the rural areas, due to lack availability and inability to afford sanitary napkins. Rural school girls are still treated as untouchables during menstruation, resulting in health problems and growing absenteeism's in schools. School girls refrain from going to toilets because there is no lock, no water supply, and no disposal facility. They also seem to avoid going to toilets during menstruation as most schools do not have separate toilets for girls. Thus, the researcher felt the need to educate the rural school girls regarding sanitary napkin during menstruation and teach them to practice the same by promoting favorable attitudes towards menstrual hygienic practice.

The role of community health officer is important to inculcate the concept of use of sanitary napkin during menstruation among school girls because it prevents, fungal infection, reproductive tract infection and urinary tract infection which might leads to cervical cancer, according to their port by the **Cervical Cancer Free Coalition (May 2013)** in order to increase the menstrual hygienic practice among women. The Indian government proposed a new scheme towards menstrual hygienic practice to rural adolescent girls. The main goal of these schemes was awareness, availability and quality of napkin, regular supply, privacy, water supply, proper disposal of napkin, reproduce health education and family support.

Under the scheme a pack of 6 sanitary napkins is provided under the NRHM's brand 'Free days'. These napkins are sold to the adolescent girls at Rs. 6 for a pack of 6 napkins in the village by the Accredited Social Health Activist On the basis of the above information it is concluded that the knowledge of school girls on menstrual hygiene is inadequate and the adolescent girls are still ignorant of the scientific fact on menstrual

hygiene health practices, which may cause adverse health outcomes. These underline the role of the community health officer and also emphasize the need to assess the knowledge and expressed practice regarding sanitary napkin which is used during menstruation by the school girls who attained menarche. This has motivated the investigator to conduct a study on effectiveness of structured teaching programme on knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche at a selected school in Dehradun.**STATEMENT OF THE PROBLEM**

A study to assess the effectiveness of structured teaching programme on knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche at a selected school in Dehradun.

OBJECTIVESOFTHESTUDY

1.To assess the level of knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

2.To evaluate the effectiveness of structured teaching program on knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

3.To associate the selected demographic variable sand health related variables with the level of knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

HYPOTHESES

H_1–There is a significant difference between pre and post-test level of knowledge regarding sanitary napkin among school girls those who attained menarche and subjected to structured teaching program.

H_2–There is a significant difference between pre and post-test level of expressed practice regarding sanitary napkin among school girls those who attained menarche and subjected to structured teaching program.

OPERATIONAL DEFINITIONS

EFFECTIVENESS

It refers to the extent to which the structured teaching programme regarding sanitary napkin yield the desired outcome in improving the level of knowledge and expressed practice among school girls those who attained menarche as evidenced by gain of knowledge and expressed practice as measured by structured questionnaire.

STRUCTUREDTEACHINGPROGRAMME

It refers to the systematically designed educational programme implemented by the researcher by using lecture cum demonstration method regarding sanitary napkin to the school girls those who attained menarche.

KNOWLEDGE

It refers to the level of understanding of school girls regarding sanitary napkin as measured by using multiple choice questions in pre and post –test.

EXPRESSEDPRACTICE

It refers to the verbalization of practice regarding steps followed in the use ofsanitarynapkinbytheschoolgirlsthosewhoattainedmenarcheasmeasuredpreciselybychecklistinpreandpost-test.

SANITARYNAPKIN

It refers to the sanitary pad in an absorbent item worm by a school girl to absorb menstrual blood.

SCHOOLGIRLS

It refers to the school girls those who attained menarche, aged between 12 and 14 years and studying in VIII (or) IX standard in Govt. Girls Higher secondary school at Dehradun.

MENARCHE

It refers to the first occurrence of menstruation usually between the ages of 10 and 15 years among school girls and continues as monthly discharge of blood through the vaginal canal.

DELIMITATIONOFTHESTUDY

The study was delimited to

- The school girls those who were aged between 12 and 14 years at a selected school.
- The school girls those who were studying VIII (or) IX standard at a selected school.
- The period of six weeks.
- The sample size of 50

PROJECTEDOUTCOME

By this study, the effectiveness of structured teaching program can be evaluated. The structured teaching program will have an impact on the knowledge and expressed practice of the school girls regarding sanitary napkin. The school girls who are in the age group between 12-14 years and studying VIII (or) IX standard will understand the definition, importance and general steps of sanitary napkin which will help them to maintain good sanitary napkin practice, reduce the spread of infection and promotes good health.

METHODOLOGY

This chapter deals with a brief description of research approach, research design settings, population, sample criteria, sampling technique, description of the tool, pilot study, data collection procedure, plan for data analysis.

RESEARCHAPPROACH

A quantitative research approach was used forth is study.

RESEARCHDESIGN

A pre-experimental one group pre and post-test design was chosen.

Table-1

SCHEMATICREPRESENTATIONOFRESEARCHDESIGN

Group	**Pre-test**	**Intervention**	**Post-test**
Studygroup	O_1	x	**O_2**

Keys

O_1-Pre-test on knowledge and expressed practice regarding sanitary napkin.
X- Intervention-structured teaching programme regarding sanitary napkin among school girls.
O_2-Post-test on knowledge and expressed practice regarding sanitary napkin

VARIABLES

INDEPENDENTVARIABLES

In this study independent variable was structured teaching programme regarding sanitary napkin.

DEPENDENTVARIABLES

In this study dependent variables were knowledge and expressed practice regarding sanitary napkins among VIII (or) IX standard school girls those who attained menarche and aged between 12 and 14 years.

SETTING OF THE STUDY

The study was conducted among school girls those who attained menarche aged between 12 and14 years and studying in VIII (or) IX standard in Govt. girls higher secondary school at A charapakkam in Dehradun. The school was located at semi urban area in Dehradun. The school comprised of classes starting from VI to XII standard. Total strength of the student in the school was 900 that included 110 students in VIII and IX Standard. A total of 50 school girls were selected for the study by adapting purposive sampling technique.

The working hour is from 9.30 am to 4.30 pm with a lunch break of 45 min from 12.45 pm to 1.30pm.The school remain closed on all Saturdays and Sundays and all government holidays.

POPULATION

TARGETPOPULATION

It refers to the school girls those who attained menarche studying in VIII (or) IX standard and aged between 12 and 14 years

ACCESSIBLE POPULATION

It refers to school girls those who attained menarche, aged between 12 and14 years and studying in VIII (or) IX standard at Govt. girls higher secondary school at Dehradun.

SAMPLE

In this study the sample comprised of school girls those who fulfilled the inclusive criteria at Govt.girls higher secondary school at Dehradun.

SAMPLINGTECHNIQUE

A purposive sampling technique was adopted.

SAMPLESIZE

A sample of 50school girls who were studying VIII (or) IX standard and aged between 12 and 14 years at Govt. girls higher secondary school at Dehradun and who fulfilled the inclusion criteria were chosen for this study.

Method of sample selection

The school girls who met the inclusion criteria were selected for this study. Girls those who were aged between 12 and 14years were selected by using purposive sampling technique.

S.no	**Standard**	**Population**	**Sample**
		Girls	**Girls**
1	VIII standard	52	23
2	IX standard	58	27
Total			**50**

CRITERIAFORSAMPLESELECTION

Inclusion Criteria.

•School girls those who were aged between 12 and 14 years, attained menarche and studying in VIII (or) IX standard at Govt. girls higher secondary school at Dehradun.

•School girls those who were able to speak, read and write English and Hindi.

Exclusion Criteria

•School girls those who were not willing to participate in this study.

•School girls those who were on leave.

SELECTIONANDDEVELOPMENTOFTHESTUDYINSTRUMENT

There searcher constructed the tool based on the literature review and opinion from experts, which consisted of:

Part-I: Section-A Demographic variables

Section-B: Health related variables.

Part-II: Section-A Structured questionnaire to assess the knowledge regarding sanitary napkin.

Part-III: Check list to assess the expressed practice regarding sanitary napkin.

Part-IV: Structured teaching programme regarding sanitary napkin.

DESCRIPTION OF THE TOOL

The tool for this study consisted of three parts.

PART-I

SECTION-A DEMOGRAPHIC VARIABLES

The demographic variables consisted of 12 items which included age in years, education, religion, type of family, residence, educational status of father, educational status of mother, occupational status of father, occupational status of mother, family in comeper month, number of sibling and source of information.

SECTION-B HEALTHRELATEDVARIABLES

It consisted of seven items which included age at menarche, nature of practice during menstruation, frequency of changing napkin per day, perception of pain during menstruation, source of water supply, methods of disposal and toilet practice.

PART-II STRUCTURED QUESTIONNAIRE TO ASSESS THE KNOWLEDGE REGARDING SANITARYNAPKIN

SECTION-A

It consisted of4 subdivisions

i. Two structured multiple-choice questions in anatomy and physiology of female reproductive system.
ii. Four structured multiple-choice questions related to menstruation.
iii. Four structured multiple-choice questions on Impact of unhygienic menstrual practice.
iv. Ten structured multiple-choice questions regarding sanitary napkin.

A total of 20 multiple choice questions were used to assess the level of knowledge regarding sanitary napkin among school girls in pre and post-test.

The questions were constructed relevant to definition, importance, general steps, and consequences of poor sanitary practices during menstruation.

PART III–CHECK LIST TO ASSESS THE EXPRESSED PRACTICE REGARDING SANITARY NAPKIN

The ten items were included in the check list based on expressed practice regarding sanitary napkin during menstruation.

PART IV STRUCTURED TEACHING PROGRAMME REGARDING SANITARY NAPKIN

Itconsistedofstructuredteachingprogrammeregardingsanitarynapkinwhich included definition, importance, general steps in using sanitary napkin and consequences of poor sanitary practice. The lecture cum demonstration methods was adopted and visual aids like roller board, chart, banner and pamphlet were used.

SCORE INTERPRETATION PART-I

The numerical values were assigned for the demographic variables and health related variables.

PART IISECTION-A

It consisted of 20 self-administered multiple choice questions regarding Anatomy and physiology of female reproductive system, menstruation, Impact on unhygienic menstrual practice and importance of sanitary napkin. The correct and wrong answer was given one and zero respectively. The maximum total score was twenty.

The total score was computed and categorized as follows.

Score	Level of knowledge in percentage	Category
< 10	Inadequate Knowledge	<50%
11-15	Moderately adequate knowledge	51-75%
16-20	Adequate knowledge	>76 -100%

PART- III

It consisted of check list which contains ten items and it has a minimum score of‘10’andmaximumof‘20’.Ascorewere interpreted as follows;

Score	Level of practice in percentage	Category
< 10	<50%	Poor practice
11-15	51-75%	Good practice
16-20	>76 -100%	Excellent practice

CONTENT VALIDITY

The content validity of the tool was established by experts which comprised of medical experts. The experts were requested to give their opinion and suggestion regarding the relevance of the tool for further modification to improve the clarity and content of the items and modification was done accordingly. The tool was finalized and translated in Hindi by the investigator.

RELIABILITY OF THE TOOL

There liabilities of structured multiple-choice questions, assessment of expressed practice were elicited by using test retest method. The “r” value was computed by Karls person’s correlation coefficient formula and it was found to be0.95, which indicated that the tool was highly reliable.

PILOT STUDY

A pilot study is a study which is carried out at the end of the planning phase of research in order to explore the feasibility of the study. A pilot study was conducted from 02.11.2015 to 10.11.2015 at Govt. Girls School, Dehradun District Administrative approval was obtained from the headmaster of the school to conduct the pilot study. The purpose of pilot study was to:

A total of 5 school girls were selected for the study by using purposive sampling technique on 2nd November 2015 pre-test was conducted by using structured knowledge questionnaire and checklist to assess the expressed practice regarding sanitary napkin. On the third day structured teaching program was implemented to the school girls who were included for the study. Post-test was conducted on 10th November 2015 after seven days of the administration of the structured teaching program.

DATA COLLECTION PROCEDURE

The data collection procedure included the following steps

1. Collection of demographic variables and health related variables by self-administered questionnaire.

2. Conduct of pre-test by self-administered multiple choice questions and check list to assess the knowledge and expressed practice, respectively.

3. Administration of structured teaching program.

4. Conduct of post-test by self-administered multiple choice questions and check list to assess the knowledge and expressed practice, respectively.

The written permission was obtained from the authority of Govt. girls higher secondary school at Dehradun. The data collection was done for the main study from 18.01. 2016 to 27.01.2016. The participants for main study were selected by Purposive sampling technique among school girls those who attained menarche in the Govt. girls higher secondary school Dehradun. Totally 50 school girls were selected who fulfilled the inclusive criteria. They were divided into two batches and one batch consists of 23 girls and another batch consists of 27girls. Before giving the intervention, the investigator conducted pre-test in the exam hall as per the data collection schedule and intervention was given on 2nd day frompre-test. Two batches were given structured teaching program regarding sanitary napkin on same day. From the day of intervention, the investigator took eight days on an average to conduct post-test which was done by using same tool to assess the level of knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

TABLE-1

PLANFORDATAANALYSIS

The data analysis was done by using descriptive and inferential statistics.

The plan for data analysis were as follows:

S.no	Data Analysis	Statistical Test	Objectives
1.	Descriptive statistics	Frequency/ percentage, mean, standard deviation	• Frequency and percentage distribution of demographic variables, health related variables, level of knowledge and expressed practice regarding sanitary napkin among study group.
2.	Inferential statistics	Paired "t" test	• Comparison of pre and post-test knowledge and expressed practice regarding sanitary napkin among school girls.
		Chi-square test	• Association of selected demographic variable sand heath related variables with level of knowledge and expressed practice regarding sanitary napkin among school girls.

CHAPTER-IV

DATAANALYSISANDINTERPRETATION

This chapter deals with the statistical analysis of the data which enables the researcher to summarize, organize, evaluate, interpret, and communicate the numerical information.

The descriptive and inferential statistics were used to analyze the data to evaluate the effectiveness of structured teaching program on knowledge and practice regarding sanitary napkin among school girls. As per the objectives of this study the tables were organized.

SECTION-A

Distribution of demographic variables and health related variables among schoolgirls.

SECTION-B

Distribution of level of knowledge and expressed practice regarding sanitary napkins among school girls in pre and post-test.

SECTION-C

Comparison of pre and post-test knowledge and expressed practice scores regarding sanitary napkin among school girls.

SECTION-D

Association of demographic variables and health related variables with level of knowledge and practice regarding sanitary napkins among school girls.

SECTION–A

TABLE–2

Distribution of demographic variables among school girls

N=50

S.NO	Demographic Variables		N	%
1	Age in years	12.1-13years	24	48
		13.1-14years	26	52
2.	Education	VIII standard	26	52
		IX standard	24	48
3	Religion	Hindu	14	28
		Christian	14	28
		Muslim	10	20
		Others[specify]	12	24
4	Type of family	Nuclear family	20	40
		Joint family	17	34
		Broken family	13	26
5	Residence	Urban	21	42
		Rural	29	58
6	Educational status of father	Illiterate	22	44
		Primary	15	30
		High school	5	10
		Higher secondary	4	8
		Graduate	4	8
7	Educational status of mother	Illiterate	23	46
		Primary	14	28
		High school	6	12
		Higher secondary	4	8
		Graduate	3	6
8	Occupational status of father	Employed	25	50
		Unemployed	16	32
		Self-employed	9	18
9	Occupational status of mother	Employed	26	52
		Unemployed	17	34
		Self-employed	7	14
10	Family income per month(Rs.)	Up to5,000	23	46

		5,001 to7,500	17	34
		7,501 to10,000	5	10
		Morethan10,000	5	10
11	Number of sibling	1	25	50
		2	16	32
		3	9	18
12	Source of information	Mother	21	42
		Relatives	17	34
		Mass media	4	8
		Friends	8	16

The table depicts the distribution of demographic variable among school girls.

It reveals that among 50 school girls, 24(48%) were in age group of 12.1-13and26(52%) of them were in the age group of 13.1-14 years. With regard to the education of the girls, 26(52%) were in VIII standard and 24(48%) were in IX standard, most of the 14(28%) belongs to Hindu, 14(28%) belongs to Christian,10(20%) belongs to Muslim and 12(24%) be longs to others.

Distribution of regarding type of family revealed that most of the 20(40%) were in Nuclear Family, 17(34%) were in Joint Family and, 13(26%) were in Broken Family. Most of the 21(42%) had their residence in urban and 29(58%) were in rural area.

The level of education of father revealed that 22 (44%) were illiterates, 15(30%) had primary education,5(10%) had high school education and, 4(8%) had Higher Secondary school education and 4(8%)were graduate.

The educational status of mother revealed that 23(46%) were illiterates, and 14(28%) had primary education out of 50 participants 6(12%) 4(8%) and 3(6%) had high school education, higher secondary school education and under graduation respectively.

Occupational status of father revealed that 25(50%) were employed, 16(32%)were unemployed, 9 (18%) were self-employed. Occupational status of mother revealed that most of the 26(52%) were employed, 17(34%) were unemployed and7(14%) were self-employed.

Among 50 school girls 23(46%) had a monthly income up to Rs.5, 000,17(14%) of them had a monthly income between Rs.5001 to 7500, 5(10%) of them had a monthly income of Rs.7501 to Rs.1000, and remaining 5(10%) had a monthly income above Rs.10000. With regard of number of siblings 25(50%) had one sibling,16(32%) had two siblings and,9(18%) had three and above.

With regard to source of information regarding health 21(42%) participants got the information by mother, 17(34%) by relatives, 4(8%) by mass media and8(16%) by friends

TABLE-3.

Distribution of health-related variables among school girls

N=50

S.NO	**Health related variables**		**N**	**%**
1	Age at menarche	12.1-13years	26	52
		13.1-14years	24	48
2	Nature of practice during menstruation	Cloth	25	50
		Sanitary napkin	20	40
		Others	5	10
3	Frequency of changing napkin per day	Once day	25	50
		Twice day	17	34
		Thrice a day and Above	8	16
4	Perception of pain during menstruation	Never	25	50
		Sometimes	17	34
		Always	8	16
5	Source of water supply	Well Water	25	50
		Municipal Water	18	36
		Bore Water	7	14
6	Methods of disposal	Directly burn	25	50
		Throw outside	15	30
		Dumped	10	20
7	Toilet practice	Open Field	30	60
		Sanitary latrine	20	40`

The above table depicts the distribution of health-related variables among school girls with regard to the age at menarche 26(52%) and 24(48%) participants were aged between12.1-13yearsand13.1-14 years respectively.

Regarding nature of practice during menstruation, 25(50%) used cloth, 20 (40%) used sanitary napkins and,

5(10%) used others.

While looking the frequency of changing napkin per day, most of them 25(50%) change the napkin once a day, 17(34%) change the napkin twice a day, 8(16%) change the napkin thrice a day and above.

Regarding perception of pain during menstruation it was found that 25(50%) never feels pain, 17(34%) sometimes feels pain and 8(16%) always feels pain.

The most of the study participants 25(50%) had the source of water supply from well,18(36%) had from the municipal water,7(14%) had from bore water.

Regarding methods of disposal 25(50%) were directly burn, 15(30%) were throw outside and10(20%) were dumped.

With regard to usage of toilet practices 30 (60%) adapted open field defecation and 20(40%) adapted sanitary latrine practic

SECTION-B

TABLE-3

Distribution of level of knowledge regarding sanitary napkin among school girls in pre and post -test N=50

S.NO	Level of knowledge	Pre-test		Post-test	
		N	%	N	%
1	Inadequate knowledge	48	96	-	-
2	Moderately adequate knowledge	2	4	3	6
3	Adequate knowledge	-	-	47	94
Total		50	100	50	100

The above table reveals that 48(96%) and 2(4%) participants in pre-test had inadequate and moderately adequate knowledge respectively. In post-test 47(94%) and 3(6%) study participants had adequate knowledge and moderately adequate knowledge respectively

TABLE-5

Distribution of level of expressed practice regarding sanitary napkin among school girls in pre and post-test N=50

S.NO	Level of practice	Pre-test		Post-test	
		N	%	N	%

1	Inadequate practice	42	84	5	10
2	Moderately adequate practice	8	16	12	24
3	Adequate practice	-	-	33	66
Total		50	100	50	100

The above table reveals that 42(84%) and 8(16%) if study girls participants had inadequate and moderately adequate practice respectively in pre-test. In post-test 33(66%) and 12(24%) had adequate practice and moderately adequate practice andonly5 (10%) had inadequate knowledge among study participants respectively.**SECTION-C**

TABLE-6

Comparison of pre and post-test knowledge score regarding sanitary napkin among school girls

N=50

S.NO	Observation	Mean	SD	Paired 't'value	p-value
1	Pre-test	6.62	1.86	38.339***	0.001
2	Post-test	17.9	1.23		

*** P<0.001

The above table unveils that there was a statistically significant difference between pre and post knowledge score regarding sanitary napkin among school girls at P<0.001.

TABLE–7

Comparison of pre and post-test expressed practice score regarding sanitary napkin among school girls

N=50

S.NO	Observation	Mean	SD	Paired 't'value	p-value
1	Pre-test	6.48	3.62	13.504***	0.001
2	Post-test	15.52	2.59		

*** P<0.001

The above table illustrates that there was a statistically significant difference test between pre and post-test expressed practice score regarding sanitary napkin among school girls at P< 0.001

SECTION-D

TABLE- 8

Association of socio demographic variables with level of knowledge regarding sanitary napkin among schoolgirls N=50

S. No	Demographic variables		Post-test knowledge score						chisquare	P value
			Inadequate		Moderately adequate		Adequate			
			No	%	No	%	No	%		
1	Age in years	12.1-13	-	-	2	4	22	44	0.446 NS	0.504
		13.1-14	-	-	1	2	25	50		
2	Education	VIII standard	-	-	1	2	24	48	1.051 NS	0.789
		IX standard	-	-	2	4	23	46		
3	Religion	Hindu	-	-	-	-	14	28	5.374 NS	0.146
		Christian	-	-	-	-	14	28		
		Muslim	-	-	2	4	8	16		
		Others[specify]	-	-	1	2	11	22		
4	Type of family	Nuclear family	-	-	1	2	19	38	0.102 NS	0.95
		Joint family	-	-	1	2	16	32		
		Broken family	-	-	1	2	12	24		
5	Residence	Urban	-	-	3	6	26	52	2.311 NS	0.128
		Rural	-	-	-	-	21	42		
6	Educational status of father	Illiterate	-	-	2	4	20	40	1.214 NS	0.876
		Primary	-	-	1	2	14	28		
		Highschool	-	-	-	-	5	10		
		Higher secondary	-	-	-	-	4	8		
		Graduate	-	-	-	-	4	8		
7	Educational status of Mother	Illiterate	-	-	3	6	20	40	3.747 NS	0.441
		Primary	-	-	-	-	14	28		
		Highschool	-	-	-	-	6	12		
		Higher secondary	-	-	-	-	4	8		
		Graduate	-	-	-	-	3	6		
8	Occupational status of Father	Employed	-	-	-	-	25	50	6.782*SS	0.034
		Unemployed	-	-	3	6	13	26		
		Self-employed	-	-	-	-	9	18		
9	Occupational Status of Mother	Employed	-	-	3	6	23	46	2.946 NS	0.229
		Unemployed	-	-	-	-	17	34		
		Self-employed	-	-	-	-	7	14		
10	Family income per-month (Rs.)	Upto5,000	-	-	1	2	22	44	1.751 NS	0.626
		5,001to7500	-	-	2	4	15	30		
		7,501 to10,000	-	-	-	-	5	10		
		Morethan10,000	-	-	-	-	5	10		
11	Number of siblings	1	-	-	1	2	24	48	1.95 NS	0.377
		2	-	-	2	4	14	28		
		3 and above	-	-	-	-	9	18		
12	Source of information	Mother	-	-	-	-	21	42	5.413 NS	0.144
		Relatives	-	-	2	4	15	30		
		Mass media	-	-	1	2	3	6		
		Friends	-	-	-	-	8	16		

NS=not significant SS=statistically significant *P<0.05

The above table shows that there was a statistically significant association of occupational status of father with the level knowledge regarding sanitary napkin among study participants at level P<0.05

TABLE -9

Association of health related variables with level of knowledge regarding sanitary napkin among school girls

N=50

S.No	Health related variables		Post-test knowledge score						Chi Square	P-value
			Inadequate		Moderately Adequate		Adequate			
			No	%	No	%	No	%		
1	Age at menarche	12.1-13 years	-	-	2	4	31	62	2.62 NS	0.457
		13.1-14 years	-	-	1	2	16	32		
2	Nature of practice during menstruation	Cloth	-	-	1	2	24	48	1.95 NS	0.377
		Sanitary napkin	-	-	1	2	19	38		
		Others	-	-	1	2	4	8		
3	Frequency of changing napkin per day	Once day	-	-	1	2	24	48	6.383*SS	0.041
		Twice day	-	-	-	-	17	34		
		Thrice a day and above	-	-	2	4	6	12		
4	Perception of pain during menstruation	Never	-	-	1	2	24	48	0.777 NS	0.678
		sometimes	-	-	1	2	16	32		
		always	-	-	1	2	7	14		
5	Source of water supply	Well water	-	-	3	6	22	44	3.191 NS	0.203
		Municipal water	-	-	-	-	18	36		
		Bore water	-	-	-	-	7	14		
6	Methods of disposal	Directly burn	-	-	-	-	25	50	5.083 NS	0.079
		Throw outside	-	-	1	2	14	28		
		Dumped	-	-	2	4	8	16		
7	Toilet practice	Open field	-	-	1	2	29	58	0.946 NS	0.331
		Sanitary latrine	-	-	2	4	18	36		

NS=not significant SS=statistically significant * P<0.05

The above table shows that there was a statistically association of frequency of changing napkin with level of knowledge regarding sanitary napkin among study participants at level P<0.05.

TABLE –10

Association of demographic variables with level of expressed practice regarding sanitary napkin among schoolgirls

N=50

S. No	Demographic variables		Post-test expressed practices core						chi-square	P value
			Inadequate		Moderately adequate		Adequate			
			No	%	No	%	No	%		
1	Age in years	12.1-13	3	6	6	12	15	30	0.393 NS	0.821
		13.1-14	2	4	6	12	18	36		
2.	Education	VIII standard	3	6	4	8	21	42	10.657 NS	0.167
		IX standard	2	4	8	16	12	24		
3	Religion	Hindu	2	4	3	6	9	18	2.922 NS	0.819
		Christian	2	4	2	4	10	20		
		Muslim	-	-	3	6	7	14		
		Others[specify]	1	2	4	8	7	14		
4	Type of family	Nuclear family	1	2	4	8	15	30	9.263 NS	0.321
		Joint family	2	4	5	10	10	20		
		Broken family	2	4	3	6	8	16		
5	Residence	Urban	3	6	7	14	19	38	0.011 NS	0.994
		Rural	2	4	5	10	14	28		
6	Educational status of Father	Illiterate	1	2	4	8	17	34	9.263 NS	0.321
		Primary	4	8	4	8	7	14		
		High school	-	-	1	2	4	8		
		Higher secondary	-	-	1	2	3	6		
		Graduate	-	-	2	4	2	4		
7	Educational Status of Mother	Illiterate	2	4	4	8	17	34	5.077 NS	0.749
		Primary	1	2	5	10	8	16		
		High school	1	2	2	4	3	6		
		Higher secondary	1	2	1	2	2	4		
		Graduate	-	-	-	-	3	6		
8	Occupational status of Father	Employed	3	6	5	10	17	34	0.911 NS	0.923
		Unemployed	1	2	5	10	10	20		
		Self-employed	1	2	2	4	6	12		
9	Occupational Status of Mother	Employed	3	6	5	10	18	36	1.122 NS	0.891
		Unemployed	1	2	5	10	11	22		
		Self-employed	1	2	2	4	4	8		
10	Family income per month(Rs.)	Upto5,000	2	4	4	8	17	34	3.283 NS	0.773
		5,001to7500	1	2	5	10	11	22		
		7,501 to10,000	1	2	1	2	3	6		
		Morethan10,000	1	2	2	4	2	4		
11	Number of sibling	1	3	6	5	10	17	34	2.064 NS	0.724
		2	2	4	5	10	9	18		
		3 and above	-	-	2	4	7	14		
12	Source of information	Mother	3	6	4	8	14	28	7.022 NS	0.319
		Relatives	-	-	7	14	10	20		
		Mass media	1	2	-	-	3	6		
		Friends	1	2	1	2	6	12		

NS=not significant

Theabovetableshowsthattherewasnoassociationofdemographicvariables with level of expressed practice of regarding sanitary napkin, among studyparticipants.

TABLE -11

Association of health related variables with level of expressed practice regarding sanitary napkin among school girls

N=50

S. No	Health related variables		Post-test expressed practice score						Chi Square	P-value
			Inadequate		Moderately Adequate		Adequate			
			No	%	No	%	No	%		
1	Age at menarche	12.1-13 years	2	4	4	8	21	42	7.216 NS	0.301
		13.1-14 years	3	6	8	16	12	24		
2	Nature of practice During menstruation	Cloth	3	6	5	10	17	34	1.373 NS	0.849
		Sanitary napkin	2	4	6	12	12	24		
		others	-	-	1	2	4	8		
3	Frequency of changing napkin per day	Once day	3	6	8	16	14	28	2.591 NS	0.628
		Twice day	1	2	3	6	13	26		
		Thrice day and above	1	2	1	2	6	12		
4	Perception of pain during menstruation	never	2	4	5	10	18	36	1.43 NS	0.839
		sometimes	2	4	4	8	11	22		
		always	1	2	3	6	4	8		
5	Source of water supply	Well water	3	6	5	10	17	34	1.018 NS	0.907
		Municipal water	1	2	5	10	12	24		
		Bore water	1	2	2	4	4	8		
6	Methods of disposal	Directly burn	5	10	7	14	13	26	6.818 NS	0.146
		Throw outside	-	-	3	6	12	24		
		Dumped	-	-	2	4	8	16		
7	Toilet practice	Open field	2	4	9	18	19	38	2.039 NS	0.361
		Sanitary latrine	3	6	3	6	14	28		

NS=not significant

The above table shows that there was no association between health's related variables and level of expressed practice regarding sanitary napkin among study participants.

DISCUSSION

This chapter deals with the discussion which was based on the objectives, findings obtained from the data analysis and its relation to the subjects of the study, the conceptual framework and with the revealed literature. The aim of the study was to assess the effectiveness of structured teaching programme on knowledge and practice regarding sanitary napkin among school girls those who attained menarche at a selected school in Dehradun. The study findings are discussed based on the following objectives.

OBJECTIVES OF THE STUDY

1.To assess the level of knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

2.To evaluate the effectiveness of structured teaching programme on knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

3.To associate the selected demographic variables and health related variables with the level of knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

FIRST OBJECTIVE

To assess the level of knowledge and expressed practice regarding sanitary napkin among schoolgirls those who attained menarche.

The analysis of knowledge score regarding sanitary napkin among school girls in pre-test and post-test disclosed that most of the 48(96%) school girls had Inadequate knowledge in pre-test whereas 47(94%) had adequate knowledge in post-test. The mean score of pre-test knowledge was 6.62 which was increased to 17.9 in the post test. This shows that the knowledge regarding sanitary napkin is increased among school girls because of structured teaching programme. This finding is substantiated by the study conducted by **Deshmukh P.R. ,et. al.,(2014)** which revealed that there was an increased knowledge score from 35% to 85% after health education. The above findings proved that structured teaching programme had yielded good result among school girls interms of gain in post-test knowledge score.

Most of the 33(66%) school girls had adequate practice regarding sanitary napkin in pre-test whereas in post-test 42(84%) had inadequate practice. Further it also revealed that 12(24%) school girls had moderately adequate practice regarding sanitary napkin in post-test against 8(16%) in pre-test. In post-test regarding 5(10%) school girls had inadequate practice regarding sanitary napkin where as it was 42 (84%) in pre-test. The mean score of pre-test practice 6.48 was increased to 15.52 in post-test. This finding proved that there is a greater improvement in level of practice regarding sanitary napkin because of structured teaching programme. These study findings are supported by the similar study conducted by **RajashreeR.Kamble (2012)** which highlighted that the practice percentage was increased from66.66% to87.66% after health education intervention regarding sanitary napkin. From these findings in is proved that structured teaching programme improved the level of practice regarding sanitary napkin among school girls,

SECOND OBJECTIVE

To evaluate the effectiveness of structured teaching programme on knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

The comparison of pre and post-test knowledge and practice score regarding sanitary napkin among school girls unveiled that the mean knowledge score was 6.62in pre-test where as in post-test it was 17.9. The mean practice score was 6.48 in pre-testand15.52inpost-test.The means core was increased because of the administration of structured teaching programme regarding sanitary napkin.

The paired "t" value on comparison of pre and post-test knowledge score regarding sanitary napkin was 38.33 which was statistically significant at P<0.001. The comparison of pre and post-test practices core elicited that the "t" value was

13.50 which was statistically significant at P<0.001.

The above finding are supported by the study conducted by**. Rao R.S. P,et. al., (2014)** which highlighted that when knowledge score is improved, practice also improved. From these findings it is concluded that structured teaching programme enhances the knowledge and practice regarding sanitary napkin among school girls. Hence **H_1**There is a significant difference between pre and post-test level of knowledge regarding sanitary napkin among school girls those who attainedmenarcheandsubjectedtostructuredteachingprogramme,and**H_2**Thereisasignificant difference between pre and post-test level of expressed practice regarding sanitary napkin among school girls those who attained menarche and subjected to structured teaching programme are accepted.

The school girls are receptive for structured teaching programme and that influences the knowledge and practice regarding sanitary napkin which will ultimately prevent the RTI and UTI infection.

THIRD OBJECTIVE

To associate the selected demographic variables and health related variables with the level of knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

The chi-sequre value on association of demographic variables with level ofknowledgedepictedthattherewasastatisticallysignificantassociationofoccupational status of father with the level of knowledge regarding sanitary napkin among schoolgirls, at level P<0.05.

There was a statistically significant association of frequency of change of napkins with the level of knowledge among school girls regarding sanitary napkin at level P<0.05

This study findings proved that structured teaching programme improves the knowledge and practice of school girls regarding sanitary napkin. Thus it is the responsibility of the officers to view the problem and educate the school girls to avoid the infection and promote good health.

SUMMARY,IMPLICATIONANDRECOMMENDATION

This chapter gives a brief account of the present study which was conducted to assess the effectiveness of structured teaching programme on knowledge and expressed practice regarding sanitary napkin among school girls ,including the conclusion.

SUMMARYOFTHESTUDY

A study to assess the effectiveness of structured teaching programme on knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche at a selected school, in Dehradun.

OBJECTIVESOFTHESTUDY

1. To assess the level of knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

2. Toevaluatetheeffectivenessofstructuredteachingprogrammeonknowledge and expressed practice regarding sanitary napkin among school girls hose who attained menarche.

3. To associate the selected demographic variables and health related variables with the level of knowledge and expressed practice regarding sanitary napkin among school girls those who attained menarche.

A quantitative approach of pre-experimental one group pre and post-test design was used forth is study. A total of 50 school girls aged between 12 and 14 years studying in VIII (or) IX standard and those who fulfilled the inclusive criteria were selected by using purposive sampling technique at selected school, in Dehradun. The structured multiple choice question and observational checklist were used for this study. Data were collected, organized and analyzed in terms of both descriptive and inferential statistics.

The findings disclosed that there was a statistically significant difference between pre and post-test knowledge and expressed practice regarding sanitary napkin among school girls at level P<0.001. Hence the H_1 and H_2 are accepted.

MAJOR FINDINGS OF THE STUDY

Demographic variables

Frequency and percentage distribution of socio demographic variables among school girls

➢ The distribution of 24(48%) participant were in age group of 12.1-13 years and 26(52%) of them were in the age group of 13.1-14 years

➢ With regard to the education of the school girls 26 (52%) were in VIII standard, 24 (48%) were in IX standard.

➢ Each14(28%)belongstoHindu,14(28%)belongstoChristianandonly,10(20%)belongs to Muslim, 12(24%)belongs to others.

➢ Type of family revealed that most of the 20(40%) were in Nuclear family, 17(34%) were in jointfamilyand13(26%) were in broken family.

➢ Most of the 21(42%) had their residence in urban and29(58%) were in rural area.

➢ The educational status of father revealed that 22(44%) have illiterates,15(30%) had primary school 5(10%) had high school 4(8%) had higher secondary school and4(8%)were graduates.

➢ The educational status of mother revealed that 23(46%) were illiterates,14(28%) were primary school 6(12%) had high school 4(8%) had higher secondary school and3(6%) were graduates.

➢ Occupational status of father revealed that 25 (50%) were employed, 16(32%) were unemployed and 9(18%) were self-employed.

➢ Occupational status of mother revealed that26(52%)were employed,16(32%) were unemployed and 7(14%) were self-employed.

➢ Regarding family income 23(46%) had amonthly income upto Rs.5000/- , 17(34%) of them had a monthly income between Rs.5001 to 7500, 5(10%) of them had a monthly income of Rs. 7501 to 10000, and remaining 5(10%) had a monthly income above Rs.10000/-

➢ With regard of number of siblings 25(50%) had one sibling, 16(32%) had two siblings and 9(18%)had three and above siblings.

➢ With regard to source of information regarding health 21(42%) received itby mother, 17(34%) by relatives,

4(8%) by mass media and 8(16%) byfriends.

Health related variables

- The distribution of age at menarche disclosed that 26(52%) were between12.1-13yearsand24(48%)werebetween13.1-14years
- Regarding nature of practice during menstruation, 25(50%) used cloth 20(40%) used sanitary napkin and, 5(10%)used others.
- While looking at the frequency of changing napkin per day, most of the 25(50%) changed their napkin once a day, 17(34%) changed their napkin twice a day and 8(16%) changed their napkin thrice a day and above.
- Regarding perception of pain during menstruation it was found that 25(50%) never perceived pain, 17(34%) sometimes perceived pain and8(16%) always perceived pain
- Regarding the methods of disposal 25(50%) were directly burn 15(30%) were throw outside and 10(20%) were dumped.
- With regard to usage of toilet practices 30(60%) adapted open field defecation and 20(40%) adapted sanitary latrine practices.
- There was a statistically significant association of frequency of changing napkin per day with level of knowledge among study participant regarding sanitary napkin at level $P<0.05$.
- The paired "t" value on comparison of pre and post test scores of level of knowledge and expressed practice regarding sanitary napkin within study participant unveiled the statistically significant difference at level $P<0.001$.
- There was a statistically significant association of occupational status of father with level of knowledge regarding sanitary napkin among study participants at level $P<0.05$.
- There was a statistically significant association of frequency of changingnapkinwithlevelofknowledgeamongstudyparticipantsregardingsanitarynapkinatlevel$P<0.05$.

CONCLUSION

Thestudyfindingprovedthatthestructuredteachingprogrammeadministered by the researcher was effective to increase the knowledge and practice regarding sanitary napkin among school girls.

LIMITATION

There was difficulty to gather all the students in a single class room because of different time table, with the teacher cooperation, the researcher could make it possible.

Recommendations

Based on the research findings there commendations are as follows:

1.A similar study can be conducted to assess the knowledge and practice among school girls regarding sanitary napkin practice.
2.A study can be conducted among different age group of school girls
3.A comparative study can be conducted among the rural and urban area of school girls.
4.A study can be conducted to find out the knowledge of parents and teachers regarding sanitary napkin practice.

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