



A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING REPRODUCTIVE HEALTH AMONG ADOLESCENT GIRLS IN SELECTED HIGHER SECONDARY SCHOOLS, KOLLAM.

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ABSTRACT

The research project undertaken was “A study to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam”. The objectives of the study were to assess the knowledge regarding reproductive health among adolescent girls and to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls, Kollam and to find out the association between pre-test knowledge scores regarding reproductive health among adolescent girls in higher secondary schools and selected demographic variables (age, religion, education of father, education of mother, occupation of father,

occupation of mother, area of residence, type of family, previous knowledge regarding reproductive health).In this study samples were 100 adolescent girls of age between 13 and 14 years in selected higher secondary schools ,Kollam .In order to assess the effectiveness of structured teaching program, the sampling technique adopted was non probability convenience sampling technique. The tool used for data collection was structured knowledge questionnaire. The data analysis of the study were based on the objectives of the study using descriptive and inferential statistics. The findings of the present study revealed that there was significant difference between pre-test and post-test knowledge scores on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam and there was significant association between the pretest knowledge scores regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam with selected demographic variables such as age, religion, education of father, education of mother, area of residence, type of family, previous knowledge regarding reproductive health. Based on the findings, the researchers had drawn implications which were vital concerns in the field of nursing practice, nursing administration, nursing education and also for the future development.

Keywords: Assess, effectiveness, Structured teaching program, Knowledge, Reproductive health, Adolescent girls.



CHAPTER I

INTRODUCTION

“To acquire knowledge, one must study; but to acquire wisdom, one must observe.”

-Marilyn vos savant

BACKGROUND OF THE STUDY

Reproductive health is the holistic well-being of young people in behavioral, emotional, physical and social aspects. Reproductive health includes a woman's genitals, menstruation and genital infections. The reproductive health of young girls is critical to the health of future generations.¹ The National AIDS Control Organization has included life skills education in school curricula to ensure that young people make informed decisions about their sexuality and reproductive health. However, there are many obstacles in translating theory into practice. India's Population Policy 2000 recognized youth as a vulnerable group with special needs. They constitute almost 20-21% of the population of our country and their number is expected to increase with time. The reproductive health of adolescent girls is crucial because it determines the health of future generations. Thus, adolescent girls are at risk of unwanted pregnancy, reproductive tract infections (RTI), as well as various social and psychological consequences such as dropping out of education, early marriages, unplanned pregnancies, unsafe abortions and depression. Many teenage girls lack a clear understanding of ovulation, menstruation, the menstrual cycle, the importance of regular periods, conception, pregnancy and childbirth. Menstruation can be associated with taboos and myths prevalent in our traditional society, which have a negative impact on women's health, especially menstrual hygiene.²

There are more than 355 million menstruating women and girls in India, but millions of girls and women across the country still face significant barriers to a comfortable and dignified menstrual health management (MHM) experience. 49,000 young men and 46,000 women are Human immunodeficiency virus (HIV) positive in India. Young people need to know how to protect themselves from HIV/Sexually transmitted diseases(STI)/RTI and have the resources to access appropriate health services for young people. About 35% of young men and 19% of young women have comprehensive information about HIV, emphasizes the need to include age-appropriate adolescent reproductive and sexual health messages, including HIV/AIDS, in the school curriculum. This framework has been translated into a national adolescent education program that provides 100% coverage of HIV/AIDS prevention and adolescent reproductive and sexual health (ARSH) messages in all secondary and post-secondary settings.³

NEED AND SIGNIFICANCE OF THIS STUDY

Adolescence is a time of rapid growth and development. They have little knowledge about reproductive health (RH). Adolescent girls are more marginalized and face many problems in society. Through educating every youth about reproductive health. It creates awareness among adolescents. It helps

in preventing reproductive tract infections, including HIV/AIDS.⁴ Studies show that adolescent girls lack adequate information about reproductive health, which makes them face problems such as polycystic ovary syndrome, early pregnancy, childbirth, abortion, violence, unwanted pregnancies, maternal mortality, reproductive tract infections and sexually transmitted diseases. When it comes to reproductive health practices, teenage girls still use cloth as an absorbent during menstruation. Reuse of absorbents is more common. In one study, it was revealed that 73% of them are using recycled clothes. In India, most schools lack trash cans and hand soap. The toilets are dirty and the doors are broken and only 42% changed sanitary pads/clothes at school because litter boxes and soaps are not available.⁵

Understanding the problems faced by young people in reproductive health there is need for primary care physicians to actively participate in reproductive health education of school teachers and frontline health workers, thus increasing the reach of reproductive education. Globally the prevalence of reproductive tract infections was 15% of adolescents. Previous studies in South Asia has shown rates of reproductive disorder ranging from 22-92%. In India, the prevalence of RTI was 9.7%. Currently, the overall prevalence of RTI in women of childbearing age was 11.75%.⁶

Reproductive health is important because it affects the individual, their family and their community. Reproductive health is an essential part of overall health and well being of an individual. Some of the adolescents tend to be unaware of their own body, their physical well being and psychological changes happening in their life. Half the adolescents aged 12-15 years don't know about menstruation until its onset, changes related to puberty and proper information for handling reproductive tract infection . Hence the significance of this study.⁶

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.

OBJECTIVES

- To assess the knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.
- To assess the effectiveness of structured teaching programme on knowledge regarding reproductive health among adolescent girls in higher secondary schools, Kollam.
- To find out the association between pretest knowledge scores regarding reproductive health among adolescent girls in higher secondary schools and selected demographic variables.

OPERATIONAL DEFINITION

- **Assess** : In this study, Assess refers to determine the knowledge regarding reproductive health among adolescent girls in higher secondary Schools.

- **Effectiveness** : In this study, it refers to change in knowledge level of adolescent girls regarding reproductive health.
- **Structured teaching programme**: In this study it refers to systemically planned Teaching programme with teaching aids about reproductive health
- **Knowledge**: In this study knowledge refers to information regarding reproductive health assessed by a knowledge questionnaire among adolescent girls in higher secondary school.
- **Reproductive health** : In this study it refers to a state of complete reproductive health or the total well-being of behavioural, emotional, physical, and social aspects of adolescence.
- **Adolescent girls in higher secondary**: In this study it refers to the adolescent girls between age group of 13-14.

HYPOTHESES

All hypotheses were tested at 0.05 level of significance.

H₁: There will be significant difference between pretest and posttest knowledge scores regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.

H₂: There will be significant association between the pretest knowledge scores regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam and selected demographic variables (age, religion, education of father, education of mother, area of residence, type of family, previous knowledge regarding reproductive health).



CHAPTER II

REVIEW OF LITERATURE

Review of literature is one of the most important steps in the research process. It is the account of what is already known about a particular phenomena. It is the description and analysis of literature relevant to particular field or topic.

This chapter deals with the information collected in relation to the present study

The review of literature is organized as follows:

- 1. LITERATURE RELATED TO KNOWLEDGE ON REPRODUCTIVE HEALTH AMONG ADOLESCENT GIRLS**
- 2. LITERATURE RELATED TO EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON REPRODUCTIVE HEALTH AMONG ADOLESCENT GIRLS**
- 3. LITERATURE RELATED TO KNOWLEDGE AND PRACTICE ON MENSTRUAL HYGIENE**
- 4. LITERATURE RELATED TO REPRODUCTIVE TRACT INFECTIONS**

1. Literature related to reproductive health

A literature search was conducted using Pubmed, Google scholar and research gate to search for studies published between 2015 -2021 to investigate knowledge level and effectiveness of structured teaching programme regarding reproductive health in the world. The results of this study shows that knowledge regarding reproductive health is increased after intervention. The findings of the study demonstrated that improper menstrual hygiene practices cause reproductive tract infections and hormonal imbalance, clotting disorders, uterine fibroids leads to menstrual irregularities.

A cross sectional study was done in Pune to assess knowledge and practices related to menstruation and reproductive health amongst college going adolescent girls. The data was collected using self-administered proforma. The study was conducted among 323 adolescent girls admitted in the year 2012 to professional colleges belonging to the health sciences faculty of a private university in Pune, India. Among 323 adolescent girls, Mean age of onset of menarche was 13.35 years. Many girls (86.65%) had knowledge of menstruation prior to menarche. For 68% of girls, mother was a source of menstrual information. Half of the girls reported some form of restriction in activities during menstruation due to religious reasons. 11% girls suffered from some form of reproductive tract infections (RTIs). Practices related to menstruation revealed that cloth piece is used for menstrual protection by 3% of girls. Soaked sanitary pads were disposed sanitarly by 96% of girls. Adolescents of medical faculty had significantly more knowledge than nursing faculty adolescents regarding emergency contraceptives ($P < 0.05$). Only four girls reported a history of sexual contact, of these, three were aware of emergency contraceptives, while one used them to prevent pregnancy.⁷

A descriptive cross-sectional study was conducted in Kathmandu valley, Nepal to assess the knowledge regarding sexual and reproductive health among adolescents. The study was conducted among 200 adolescents in selected higher secondary school. The data was collected by using self administered written questionnaire. The findings revealed that most of the respondents had knowledge regarding transmission and protection of HIV/AIDS and STIs but still some respondents had misconception regarding it. The statistical analysis revealed that the total mean knowledge score with standard deviation was 45.02.67. Nearly half of the respondents (49.5%) had moderate level of knowledge, followed by inadequate level of knowledge (29.5%) and adequate level of knowledge (21.0%) regarding sexual and reproductive health. There was statistically significant association of level of knowledge with area of residence (p-value 0.002).⁸

A cross sectional descriptive study was carried out in Dispur, Assam regarding the knowledge and attitude on reproductive health among high school girls using structured questionnaire including socio demographic characteristics and 30 items for assessing knowledge and 10 items likert scale to assess attitude towards reproductive health. The sample was selected by stratified random sampling technique. The study findings revealed that among 45 subjects, 86.66% girls had moderate level of knowledge and rest 13.44% had low level of knowledge. 60% had favourable and 40% had neutral attitude towards reproductive health. Positive association was found between sociodemographic variables with knowledge and attitude. Knowledge and attitude scores were found to be positively correlated.⁹

A descriptive study was executed in Udipi regarding knowledge of adolescents regarding reproductive health among 100 adolescents in vidyanikedan public school Udipi using structured self-administered knowledge questionnaire. The sample was selected by purposive sampling technique. Collected data was analyzed by using descriptive and inferential statistics. The study findings revealed that 66 (66%) adolescents had poor knowledge level, 28 (28%) adolescents had moderate knowledge, 6 (6%) adolescents had good knowledge and none of them had excellent knowledge on reproductive health. Area-wise analysis of knowledge of adolescents regarding reproductive health shows that overall knowledge mean was 15.46 and means percentage was 40.4 with standard deviation of 2,8. The variables such as age, educational status, religion, type of family, and educational status of mother, income of the family, age at menarche and source of information did not show any significant association with the knowledge.¹⁰

A cross-sectional comparative study was done to explore the knowledge on adolescent reproductive health among tenth standard student's attending three high schools in Katha Township in Sagaing Region. The pre-tested questionnaire was applied. A total of 500 tenth standard students were selected and stratified by school and gender with stratified random sampling method. The age of studied students were between 14 and 18 years and the mean age was 15.3 (SD=0.7) years. About 60% of them did not know whether a woman can be pregnant on the first time of sexual intercourse. Over 73% of studied students were aware of any contraceptive methods. Among them, 66.2% of respondents could mention taking daily pills as a contraceptive measure, 72% could identify injection and 65.4% could answer condom. HIV/AIDS awareness among studied students was over 99%. Regarding prevention of HIV transmission among them. 72.9% answered to use condom. More male students than female students were aware of condom and gender

differences were statistically significant ($P < 0.05$). Only 40% of studied students were aware of sexually transmitted infections. The male students got higher knowledge score than the female students, and the difference was statistically significant ($P < 0.05$).¹¹

A cross-sectional study was conducted among 1,034 secondary school students using a self administered validated questionnaire. The items with the fewest correct responses included: whether one can get pregnant after a single act of sexual intercourse (30.4%), whether sexual intercourse causes sexually transmitted diseases (STDs)(12.4%) and whether washing the vagina after sexual intercourse prevents pregnancy (17.0%). Their main source of sexual information was friends (64.4%). An independent t-test revealed the mean knowledge score was significantly higher among females than males.¹²

2. Literature related to effectiveness of structured teaching programme on reproductive health among adolescents girls

A pre-experimental study was conducted in Kollam, Kerala to assess Effectiveness of Planned Teaching Programme on Knowledge Regarding Reproductive Health among Adolescent Girls in Selected Higher Secondary Schools in Kollam, District. The data was collected using same structured knowledge questionnaire in pretest and post test. In this study the sample size consists of 50 adolescent girls, studying in school. The selection of sample largely depend upon their availability, for selection of sample, the purposive sampling technique was used. In the pre test 55 % of the adolescent girls had average knowledge score and 47 % attained poor knowledge score and no one had good knowledge score. After post test (99.0 %) of the adolescent girls secured very good knowledge score and the remained subjects (3 %) secured good knowledge scores. The result showed that the mean post test knowledge score ($X_2=35.00$) was higher than the mean pre test knowledge score ($X_1=16.43$).¹³

A pre-experimental study was executed in Haryana to assess effectiveness of Intervention on Knowledge of Reproductive Health among Adolescent Girls. Tool used contained sections one section consists of demographic variables and other section consists of Structured knowledge questionnaire of 40 items including menstruation/menstrual hygiene, STI/RTI, HIV/AIDS, anemia. The study was conducted among 60 adolescent girls in selected school of Rohtak. They were selected by Non-probability convenient sampling method. The data was analysed using descriptive and inferential statistics. Result revealed pre-test mean score as 22.08 with SD of 5.69 whereas post-test mean knowledge score was 29.17 with SD of 4.315. The mean difference between pre-test and post-test score was 7.09. The obtained t-value 12.194 was greater than tabulated 't-value' at 0.05 level of significance. So intervention was found to be effective. The study findings show that, there was association between the pre-test knowledge score and education, education of mother, and source of information regarding menstruation.¹⁴

Interventional study was carried out in Berhampur to assess the effectiveness of planned teaching program on reproductive health among students of 10th standard. The data was collected using self assessment proforma. The study sample consisted of 144 adolescent girls admitted in the year of 2009-2010 in 10th standard in Sarojini high school, Ankuli, Berhampur. Most of the adolescent girls were found in age of 15

years no one was in age of 19 years .Students had a good knowledge regarding ovulation, through the knowledge regarding age at first menses and genital hygiene was poor at pretest. Their knowledge regarding menstruation and Menstrual hygiene improved after intervention .¹⁵

A quantitative study was done in Uttar Pradesh, India to assess the effectiveness of structured teaching program regarding Reproductive health on knowledge among adolescent girls in selected school of rural area. The data was collected using a structured knowledge questionnaire. This study was conducted in 80 adolescent girls and non probability purposive sampling technique was used for the selection of subject and schools .A structured teaching program was administered to the adolescent group of 13-19 years. The result revealed that after the intervention, the mean and standard deviation of the post test knowledge was 18.41+3.40 and the mean and standard deviation of pre test knowledge 14.06+2.46.This indicated there was a significant improvement in the level of knowledge of participants .¹⁶

A pre experimental study was executed in Bhavnagar, Gujarat to assess the effectiveness of structured teaching Program on Knowledge regarding reproductive health among adolescent girls in selected schools of Bhavnagar District. The study was conducted among 60 adolescent girls. The data was collected by using a knowledge questionnaire. The overall pre-test mean knowledge score of adolescent girls was 13.81+3.67, post-test mean knowledge score of was 22.71+2 35. The post test mean knowledge Score was significantly greater than the pre-test mean knowledge score. So structured teaching programme was effective.¹⁷

A pre experimental study was conducted in Lucknow, Uttar Pradesh to assess the effectiveness of planned teaching program on knowledge regarding reproductive health among B.Sc. Nursing 1 Year students of Baba Educational Society, Institute of Paramedical, College of Nursing, Lucknow, Uttar Pradesh. The study was conducted among thirty 1st year BSC Nursing students in selected colleges. The samples were selected by non probability convenient sampling technique. In pre- test majority (63.33%) of B.SC 1st year student had average knowledge, whereas in the post-test (46.66%) of student had good knowledge. The mean percentage of post-test knowledge score was higher (19.33) when compared with mean percentage of pre-test knowledge score (11.33%) Post-test mean score (1933%) was inferred that the mean difference between pre- test and post-test knowledge score was statistically significant. The computed value was higher than the table value at 0.05 level of significance.¹⁸

A Quasi Experimental study was conducted in Barwala regarding Effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Reproductive Health among Adolescent Girls in Selected Senior Secondary Schools, using structured questionnaire. The population were included in the present study was the adolescent girls (13-19)and Sample size was 50 adolescent girls in selected senior secondary schools, Barwala. The sample was selected by purposive sampling technique. Descriptive and inferential statistics was used for data analysis. The study concluded that post test knowledge score on reproductive health was significantly higher than the mean pre test knowledge score and attitude score among adolescents.¹⁹

An experimental study was executed in Uttar Pradesh to assess the effectiveness of structured teaching program on knowledge and attitude of adolescent girls regarding Menstrual hygiene management. The data was collected using structured knowledge questionnaire. The study was conducted on 30 adolescent girls studying in GS Model school, NOIDA. The purposive sampling technique was used for selecting adolescent girls. It was analysed and interpreted by descriptive statistics based on the objective of study. The mean post test knowledge score was higher than mean pretest knowledge score and mean post test attitude score was higher than mean pretest attitude score. The structured teaching program regarding Menstrual hygiene and management was effective in terms of enhancing the knowledge as well as attitude of adolescent girls.²⁰

3. Literature related to knowledge and practice on menstrual hygiene

A descriptive study was done in Bengaluru to assess the knowledge of adolescent girls regarding menstruation and menstrual hygiene among PUC students of Dayananda Sagar institution. The data was collected using structured knowledge questionnaire. The study was conducted on 100 adolescent girls selected by non-random convenient sampling technique. The study revealed that 29% of the adolescent girls had moderate knowledge, 70% had adequate knowledge, 1% had inadequate knowledge. This study findings highlight that there is adequate knowledge about Menstrual hygiene and most of adolescent girls had positive attitude towards Menstrual hygiene.²¹

A descriptive cross-sectional study was done at Gramin Caledonian College of Nursing in Bangladesh to assess the level of knowledge and practice of menstrual hygiene among female nursing students. A total of 106 female nursing students were selected by purposive sampling technique. Data were collected by self-administered semi-structured questionnaire. 51.9% of respondents mentioned that menstruation is the uterine bleeding and 67.0% of respondents were surprised during their first menstruation. About 76.5% of respondents mentioned that their mode of disposal of absorbents was dustbin and most of them used soap and water to clean their genital area after menstruation.²²

A cross-sectional study conducted at Gedeo zone high school to assess the knowledge and Menstrual practices among adolescent girls. Data were collected by using interviewer-administered questionnaire. 791 adolescent girls were selected by random sampling method. The study showed that 68.3% girls had poor knowledge regarding menstruation. About 48.1% school girls used absorbent materials and 69.5% clean their genitalia.²³

A cross-sectional study was carried out in Puducherry to assess the menstrual hygiene practices among adolescent girls. The data was collected using pre-designed and pre-tested semi-structured questionnaire. 528 adolescent girls from 3 villages were included by complete enumeration. Majority of the adolescent girls was using sanitary pads, fresh and reusable clothes were used by 6.6% and 4.4% respectively. 65.3% girls changed their soaked absorbent 2-5 times in a day. Even though, sanitary pads users were high, unhygienic practices were noticed, so more emphasis is needed to be given on awareness of menstrual hygiene practices among adolescent girls.²⁴

A cross sectional study was executed in Rajasthan to assess practices of menstruation among adolescent girls, to find out its related problems and socio-cultural beliefs. 440 adolescent girls were studying in 9th standard to 12th standard were selected by convenient sampling technique. The data was collected by using preformed pretested semistructured questionnaire. This study concluded that 68.41% girls had history of abdominal pain as premenstrual symptom . sanitary napkins were used by 50.22% girls and 66.54% girls were use water to clean genitalia during menstruation.²⁵

A cross sectional study was conducted at rural and urban high schools in kozhikkode to assess and compare perception, attitudes and practices of rural and urban high school girls. The data were collected by questionnaire. The samples were girls studying in 8th and 9th standard and attained menarche. Cluster sampling methods are used to select the samples. This study revealed that most of the girls gained information prior to menarche. Girls who wrongly perceived the cause of menstruation was more in rural subjects compared to urban.50.9% urban girls were not mentally prepared for menarche as compared to 44.4% of rural girls.83.9% in rural and 78.2% urban had an attitude of menstruation as an unclean phenomena. A higher proportion of urban girls (55.9%) practiced good menstrual hygiene as compared to average hygiene practiced by rural girls (48.9%).²⁶

4. Literature related to reproductive tract infections

A descriptive study was conducted in Pune to assess knowledge regarding Vaginal Candidiasis among adolescent girls in selected urban areas in Pune City. The data was collected using a structured questionnaire. The sample size was 100. Non probability purposive sampling technique was used to select the sample. In this study (51%) of the adolescents were having below average followed by average (36%), poor (12%) and good (11%) knowledge regarding vaginal Candidiasis. The education variable is associated with Level of Education as the chi-square calculated value (22) is more than table value (3.84).²⁷

A Cross sectional Study was carried out in the "Anwasha clinic, The study was carried out on December 2014 to January 2015 among all the adolescents(10- 19 years) who attended the "Anwasha" clinic during study period, All adolescent girls attending the clinic were considered for study through, complete enumeration method. 48% adolescent girls were suffering from RTI. Common age group was 10- 14 years. 70.6% were Muslim and 4.9% were married. RTI was more common among Muslim, and who use no-sanitary napkin during menstruation and belong to lower socio-economic class.²⁸

A Quasi-experimental one group pre-post-test design was applied on 100 students at Port-Said University, Egypt to assess the effectiveness of a training program toward external genital organs' infections (vulvitis) and its reported preventive measures among female students. The sample size was 100 students self-administered Questionnaire schedule was used to collect necessary information. Statistically significant improvements were found in post-intervention Knowledge of studied students in All tested items regarding external genital tract infection and its preventive measures ($P < 0.001$). Students with adequate reported practices to prevent vulvitis rose in all the areas after the program and demonstrated Statistically significant improvements.²⁹

A quasi experimental study was carried out in Egypt to assess the effectiveness of planned teaching programme on vaginitis and its preventive measures on adolescent female nursing students knowledge. The data was collected using structured self administrative questionnaire. One group pretest posttest was the research design adopted for this study. The sample was 208 students and purposive sampling technique was used to select samples. The study revealed a statistically significant difference as regards total knowledge score level between pretest and posttest scores among students, which indicated an improvement in their knowledge about vaginitis.³⁰

Cross sectional study was done on married women of rural area of Etawah district. Multi stage random sampling was adopted. The data was collected using structured questionnaire to assess the knowledge, Attitudes and Practices about RTIs among married women. The study was conducted in 370 married women using multi stage random sampling was adopted. A structured questionnaire was used to assess the knowledge, Attitudes and Practices about RTIs among married women. Chi-square test was used for analysis. The present study revealed that 42.16 % were aware about RTS. As per their knowledge about symptoms, transmission and source of infections 35.41 % women told vaginal discharge as commonest symptom of RTIs, 40.0% women perceived sexual contact with multiple partner as the main route of transmission and 29.46% married women gained knowledge about RTs from health worker followed by doctors 28 .10%.³¹

A cross sectional study was conducted in Paschim midnapur district of West Bengal to find out the prevalence of reproductive tract infection and health seeking behaviour. The data was collected by house visit interview. The sample was 2000 currently married women and selected by using stratified multistage random sampling. The study revealed that the prevalence of reproductive tract infection was 11.7%, which was higher in 30-35 years age reproductive tract infection is indirectly proportional to literacy status. Prevalance of reproductive tract infection was significantly higher among those who did not use sanitary napkins/clean sun dried domestic clothes.³²



CHAPTER III

RESEARCH METHODOLOGY

Research methodology is a part of the research usually consists of subjects, procedures and data analysis which gives the details about sampling design, methods of data collection, tool for gathering data and method of data analysis.³³

- B. T Basavanthappa

Research methodology is a design or a plan or a strategy of a research study that gives guidelines, which directs the research steps, the study process and helps in systematic data collection, logical data organization and accurate data analysis and accurate data interpretation in a research investigation.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.

OBJECTIVES

1. To assess the knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.
2. To assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls in higher secondary schools, Kollam.
3. To find out the association between pretest knowledge scores regarding reproductive health among adolescent girls in higher secondary schools and selected demographic variables.

HYPOTHESES

All hypotheses were tested at 0.05 level of significance.

H₁: There will be significant difference between pretest and posttest knowledge scores on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.

H₂: There will be significant association between the pretest knowledge scores on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam. with selected demographic variables (age, religion, education of father, education of mother, area of residence, type of family, previous knowledge regarding reproductive health)

RESEARCH APPROACH

Research approach is the plan to investigate a phenomenon under study in a structured or unstructured or a combination of both methods.³⁴

In this study Quantitative research approach was adopted.

RESEARCH DESIGN

Research design is the overall plan for obtaining answer to the research question or for testing research hypothesis.³⁵

(Polit and Hungler -2007)

The research design adopted for this study is Pre-experimental one group pretest posttest research design.

The schematic representation of the study is as follows:

DAY 1		DAY 8
O ₁	X	O ₂

O ₁	-	Pretest
X	-	Interventions (Structured teaching program)
O ₂	-	Posttest

VARIABLES

Variables are things that measure, manipulate and control in statistics and research . All studies analyse a variable,which can describe a person,a place, thing or idea.³⁴

Dependent, Independent and Demographic variables were considered in this study.

DEPENDENT VARIABLE

It is the outcome variable which is measured or observed following the action of the independent variable.³⁴

The dependent variable chosen for this study was knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.

INDEPENDENT VARIABLE

It is the variable that stands alone and doesnot depend on any other.It is the variable that precedes the dependent variable.It is also called the cause, stimulus , experiment or treatment.³⁴

The independent variable chosen for this study was structured teaching program on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.

DEMOGRAPHIC VARIABLES

A demographic variable is a variable that is collected by researcher to describe the nature and distribution of the sample used with inferential statistics.³⁴

In this study the demographic variables were age, religion, education of father, education of mother, occupation of father, occupation of mother, area of residence, type of family, previous knowledge regarding Reproductive health.

SETTING OF THE STUDY

Study setting is the location in which the research is conducted.³⁴

The setting for the present study was in Government VHSS ,Thattamala.Kollam.

POPULATION

Population refers to a total category of persons or objects that meets the criteria for study established by the researcher, any set of persons, objects or measurements having an observable characteristics in common.³⁶

- B. T Basavanhappa

The population for this study was adolescent girls of age between 13 and 14 years in Government VHSS, Thattamala, Kollam.

SAMPLE

A Sample is a selected proportion of the defined population.³⁶

- B. T Basavanhappa

In this study samples were adolescent girls of age between 13 and 14 years in Government VHSS, Thattamala, Kollam who fulfilled the inclusion criteria.

SAMPLE SIZE

Number of samples are the subjects who will participate in the research study.³⁴

The sample size of this study was 100 adolescent girls in Government VHSS, Thattamala,Kollam.

SAMPLING TECHNIQUE

The sampling technique adopted for this study was convenience sampling technique.

CRITERIA FOR SAMPLE SELECTION

a) INCLUSION CRITERIA

1. Adolescent girls of age group 13 and 14years.
2. Adolescent girls available during the time of data collection.

b) EXCLUSION CRITERIA

1. Adolescent girls who attended previous classes on reproductive health.
2. Adolescent girls not available during the time of data collection.

TOOL AND TECHNIQUE

Data collection or research tool refers to devices or instruments used to collect data.³⁴

Present study was concerned with finding out the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls in Government VHSS, Thattamala.

Tool consists of:

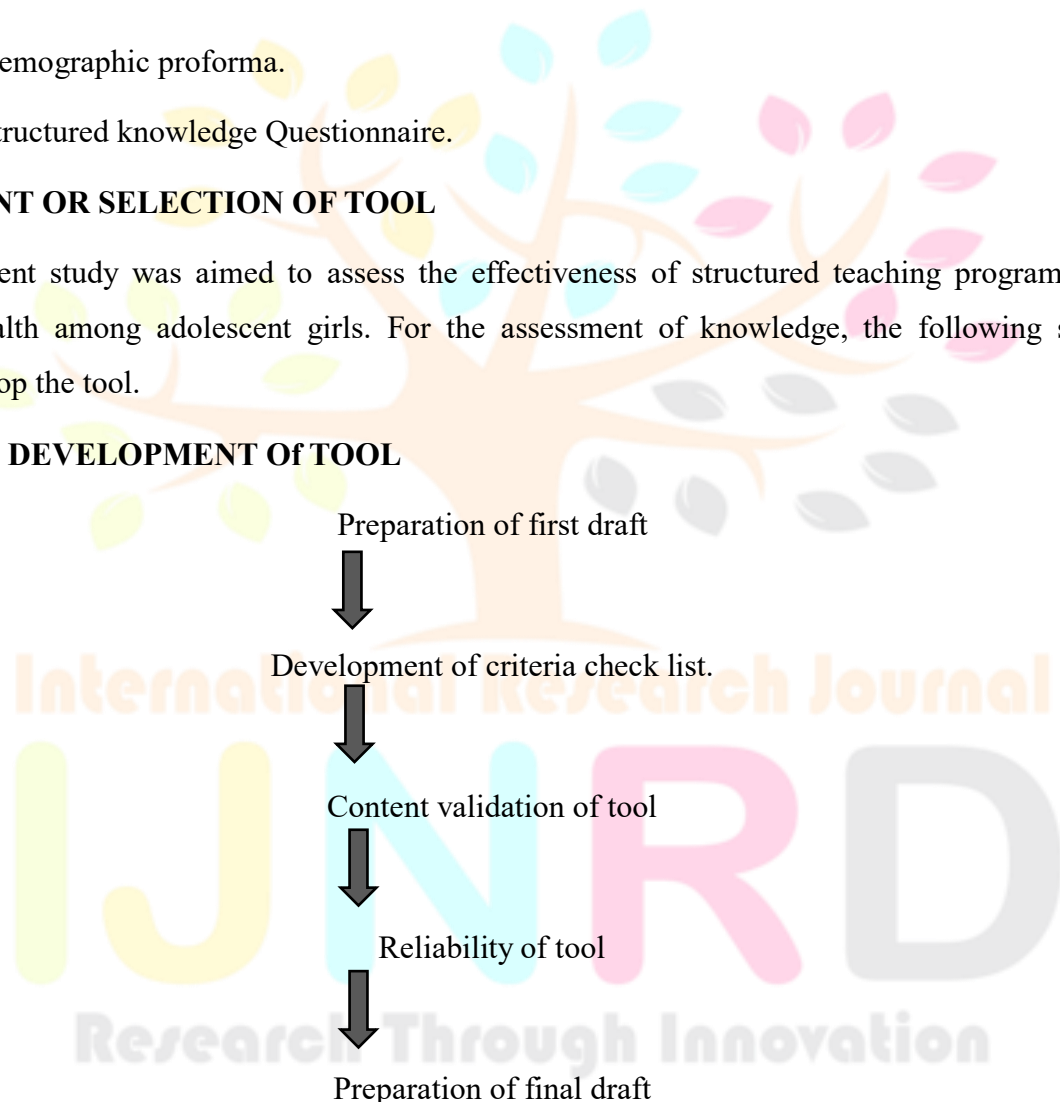
SECTION A: Demographic proforma.

SECTION B: Structured knowledge Questionnaire.

DEVELOPMENT OR SELECTION OF TOOL

The present study was aimed to assess the effectiveness of structured teaching program regarding reproductive health among adolescent girls. For the assessment of knowledge, the following steps were adopted to develop the tool.

STEPS IN THE DEVELOPMENT OF TOOL



SECTION A: DEMOGRAPHIC PROFORMA

It consisted of demographic variables of the adolescent girls such as age, religion, education of father, education of mother, occupation of father, occupation of mother, area of residence, type of family and previous knowledge regarding reproductive health.

SECTION B: STRUCTURED KNOWLEDGE QUESTIONNAIRE

It consisted of multiple-choice questions to assess the knowledge of adolescent girls regarding reproductive health. It included 30 multiple choice questions with four options. Questions covered various aspects related to reproductive health such as female reproductive system, Menstruation, Reproductive tract Infections. Maximum score was 30 and minimum score was 0. One correct answer was given a score of 'one' and for each wrong response a score of 'zero' was given.

Classification of scores:

Category	Score
Poor	0 – 14
Adequate	15 – 22
Good	23 – 30

STRUCTURED TEACHING PROGRAMME (STP)

The structured teaching program was based on reproductive health. The topics such as female reproductive system, Menstruation and Reproductive tract infection were included in structured teaching program.

CONTENT VALIDITY

Validity is an instrument refers to whether the instrument measures what it is intended to measure.³⁴

To ensure the content validity, the prepared tool along with the statement of the problem, objectives, operational definition, hypotheses, structured knowledge questionnaire and lesson plan was given to experts from the field of nursing, gynecologist, language expert, and school health nurse.

RELIABILITY

Reliability is the degree of consistency or accuracy with which an instrument measures the attributes it is designed to measure.³⁴

After obtaining permission from Vimalahridaya GHSS, Kollam the tool was administered to adolescent girls of age between 13 and 14 years on 17.10.2023 . Reliability coefficient was established by using test-retest method. The Reliability coefficient was calculated by using Karl Pearson's correlation formula. The value found out was 0.76 . This indicate that the tool was reliable.

PILOT STUDY

Pilot study was conducted at Vimalahridaya GHSS, Kollam on 17.10.2023 among 10 students who met the predetermined criteria Informed consent was taken prior to the study from the students and nature of

study was explained. Their knowledge was assessed by using questionnaire. Pretest was done on 17.10.2023. After conducting the pretest the structured teaching program was given on the same day. On 7th day, posttest was conducted on the participants.

ETHICAL CONSIDERATION

Informed consent was obtained from the head of institution, concerned authorities of the institution and signed assent from the parents of adolescent girls and informed consent was obtained from the participants. Confidentiality was assured.

DATA COLLECTION PROCESS

Data was collected after obtaining permission from head of the institution and school, Informed consent was obtained from the parents and signed assent from adolescent girls prior to the study. The purpose of the study was explained to them. Data collection was done for a period of one week. The convenience sampling technique was used to select the samples. On the first day of data collection, the structured knowledge questionnaire was given to adolescent girls who fulfilled the inclusion criteria. Initially the structured knowledge questionnaire was given to 100 participants and need instructions were provided, after that teaching program was conducted by the researchers on the same day regarding reproductive health for a duration of 45 minutes duration. On the 7th day, posttest was conducted by using the same knowledge questionnaire.

DATA ANALYSIS PROCESS

The researcher's analyzed the data by using descriptive and inferential statistics based on the objectives. The data was presented in figures and tables.

1. Demographic data was analyzed using 'frequency and percentage'.
2. Knowledge was assessed using 'frequency and percentage'. The data was tabulated and analysed in terms of frequency, percentage, mean and standard deviation.
3. The effectiveness of structured teaching program on knowledge regarding reproductive health was analyzed by using paired 't' test.
4. Association between Pretest knowledge scores regarding Reproductive health among adolescents girls in selected higher secondary schools, Kollam and selected demographic variables was analyzed by using chi-square test.

CHAPTER IV

ANALYSIS AND INTERPRETATION

Analysis is referred to as a method of organizing data in such a way that research questions can be answered and all hypotheses were tested.³⁴

This chapter deals with analysis and interpretation of data collected from 100 adolescent girls of selected schools to assess the effectiveness of structured teaching program on knowledge regarding reproductive health and the association of knowledge with selected demographic variables.

OBJECTIVES

1. To assess the knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.
2. To assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls in higher secondary schools, Kollam.
3. To find out the association between pretest knowledge scores regarding reproductive health among adolescent girls in higher secondary schools and selected demographic variables.

HYPOTHESIS

All hypotheses were tested at 0.05 level of significance.

H₁: There will be significant difference between pretest and posttest knowledge scores regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.

H₂: There will be significant association between the pretest knowledge scores regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam with selected demographic variables (age, religion, education of father, education of mother, area of residence, type of family, previous knowledge regarding reproductive health)

ORGANIZATION OF THE STUDY FINDING

The researcher analyzed the data by using descriptive and inferential statistics based on the objectives. The data was presented in figures and tables.

Section A: Demographic data was analyzed using 'frequency and percentage'.

Section B: Knowledge was assessed using 'frequency and and percentage'. The data was tabulated and analysed in terms of frequency, percentage, mean and standard deviation.

Section C: The effectiveness of structured teaching program on knowledge regarding reproductive health was analyzed by using paired 't' test.

Section D: Association between Pretest knowledge scores regarding Reproductive health among adolescents girls in selected higher secondary schools, Kollam and selected demographic variables was analyzed by using chi-square test.

Section A :Demographic data was analyzed using `frequency and percentage`

This section deals with the frequency and percentage distribution of participant characteristics such as age, religion, education of father, education of mother, occupation of father, occupation of mother, area of residence, type of family, previous knowledge regarding reproductive health.

Table : 1 Frequency and percentage distribution of participants according to demographic variables.

Slno	Demographic variables	Frequency	Percentage
1.	Age		
	13 years	47	47%
	14 years	53	53%
2.	Religion		
	Hindu	9	9%
	Christian	0	0
	Muslim	91	91%
3.	Education of father		
	Primary	3	3%
	High school	50	50%
	Higher secondary	33	33%
	Graduation and above	14	14%
4.	Education of mother		
	Primary	6	6%
	High school	37	37%
	Higher secondary	29	29%
	Graduation and above	28	28%
5.	Occupation of father		
	Government	3	3%
	Semi-government	4	4%
	Private	28	28%
	Self/Bussiness	65	65%
6.	Occupation of mother		
	Government	3	3%
	Private	9	9%
	Self/Bussiness	9	9%

	Housewife	79	79%
7.	Area of residence		
	Semirural	46	46%
	Rural	21	21%
	Semiurban	7	7%
	Urban	26	26%
8.	Type of family		
	Nuclear family	65	65%
	Joint family	21	21%
	Extended family	14	14%
9.	Previous knowledge regarding reproductive health		
	Yes	96	96%
	No	4	4%
	If yes, source of information		
	Newspaper/ Magazine	0	0
	Media	0	0
	Friends/Relatives	42	43.75%
	Health professionals	54	56.25%

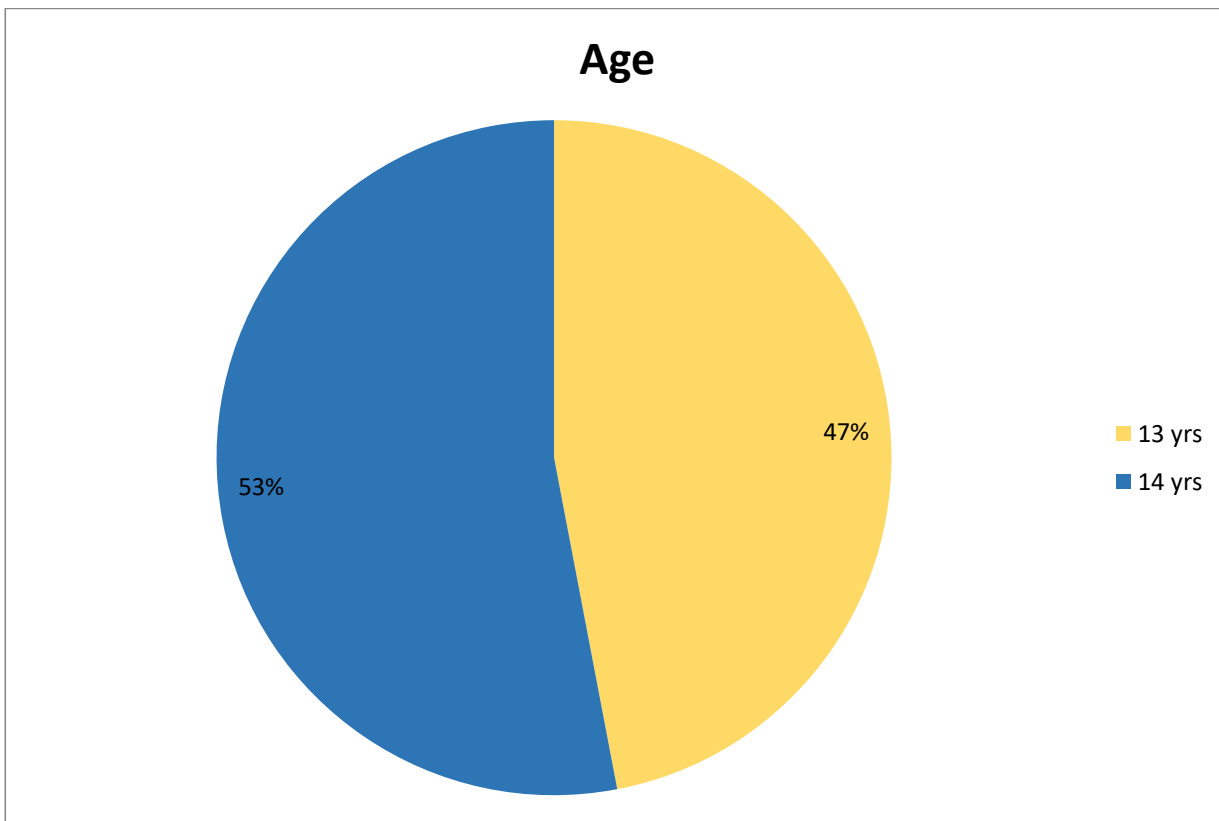


Figure 1: Diagram showing percentage distribution of adolescent girls according to their age.

The data presented in the figure 1 shows that out of 100 participants, 47% were in the age group of 13 years and 53% were in the age group of 14 years.



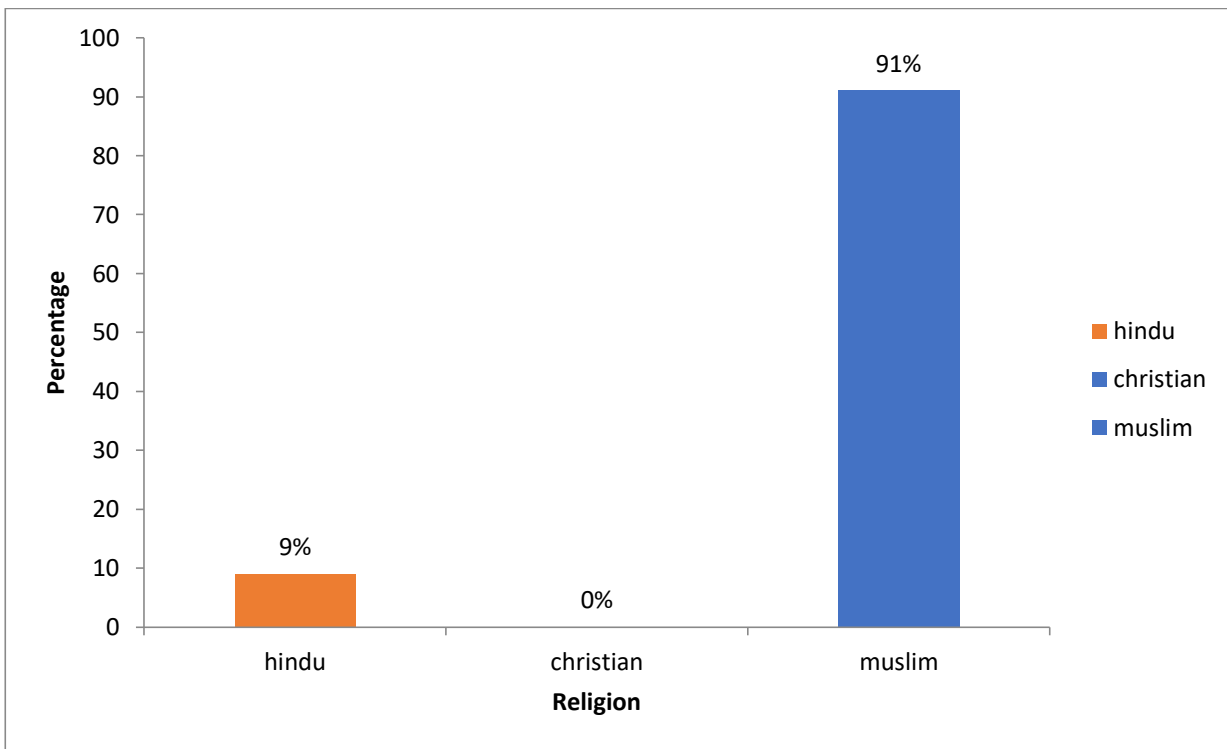


Figure 2: Diagram showing percentage distribution of adolescent girls according to their religion.

Figure 2 shows that out of 100 participants, 91% were Muslims and 9% were Hindus.



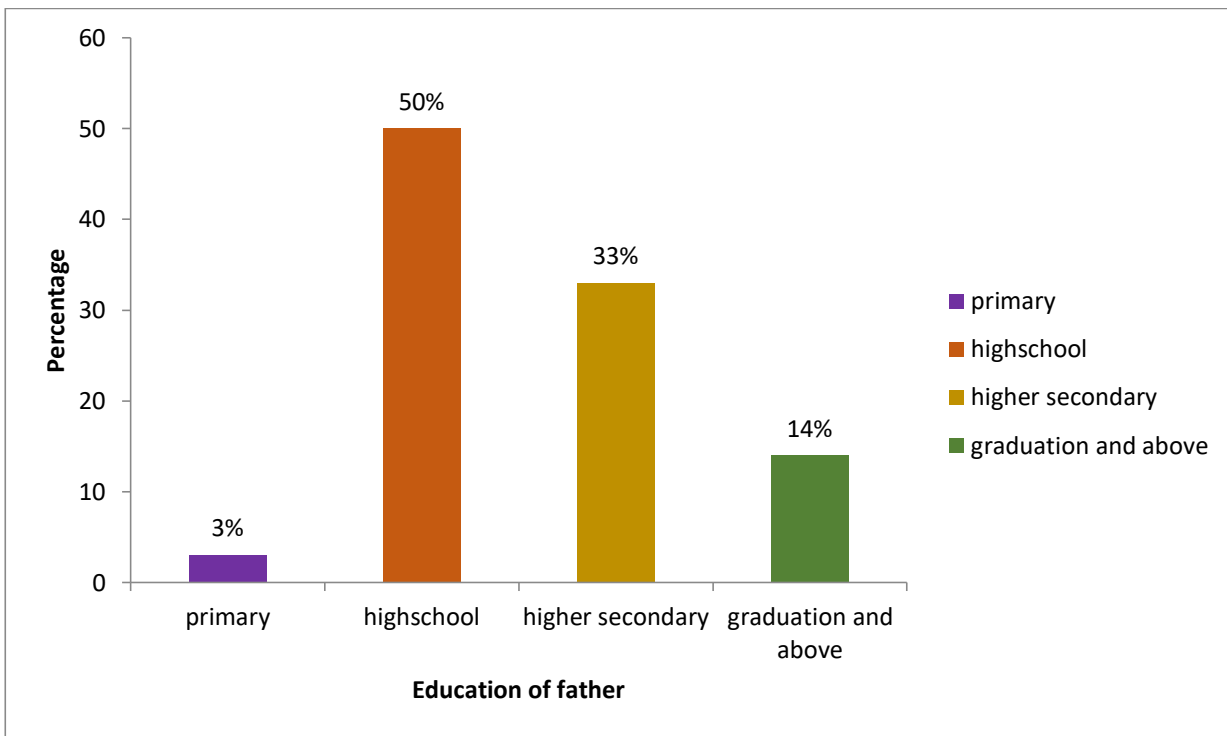


Figure 3: Diagram showing percentage distribution of adolescent girls according to the education of father.

Figure shows that 3% had primary level education, 50% had education upto high school level, 29% had higher secondary level education and 14% were graduates or above.

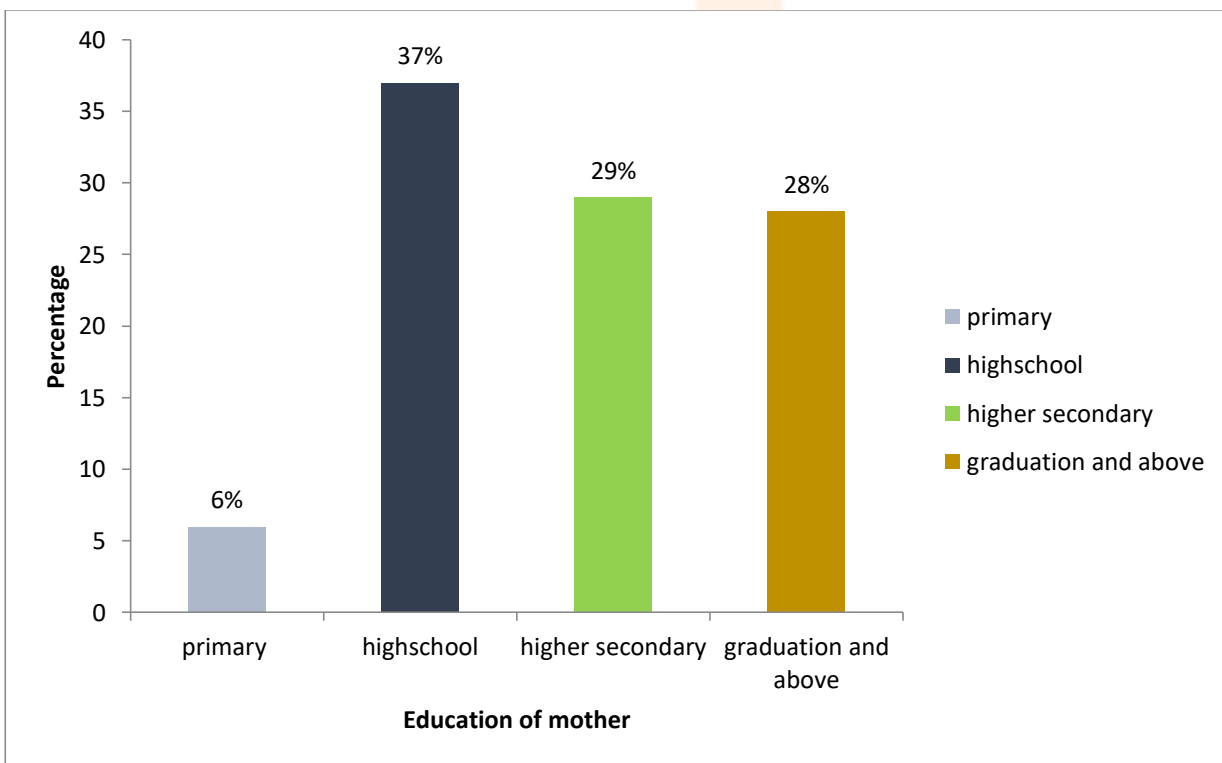


Figure 4: Diagram showing percentage distribution of adolescent girls according to the education of their mother.

Figure shows that 6% had primary level education, 37% had education upto highschool level, 29% had higher secondary level education and 28% were graduates or above

(N = 100)

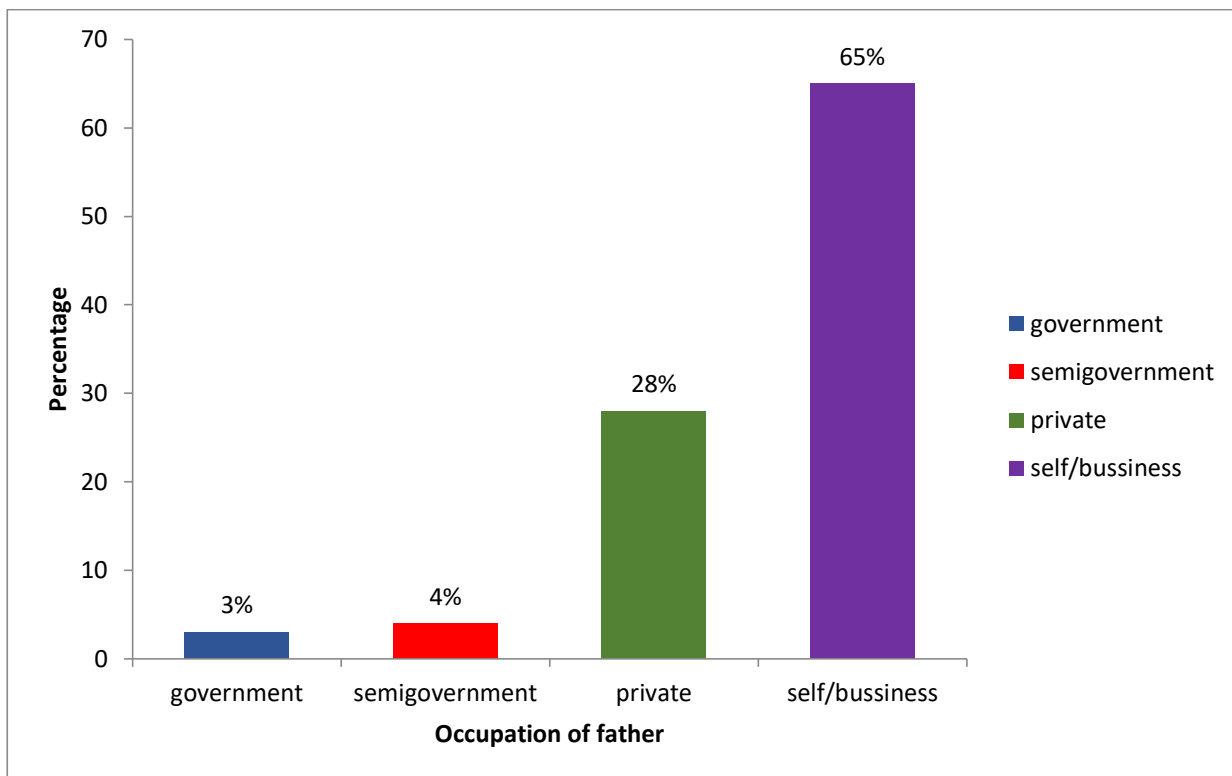


Figure 5: Diagram showing percentage distribution of adolescent girls according to the occupation of their father.

Figure shows that 3% were government employees, 4% were semi government employees, 28% were private employees and 65% were having self /business.

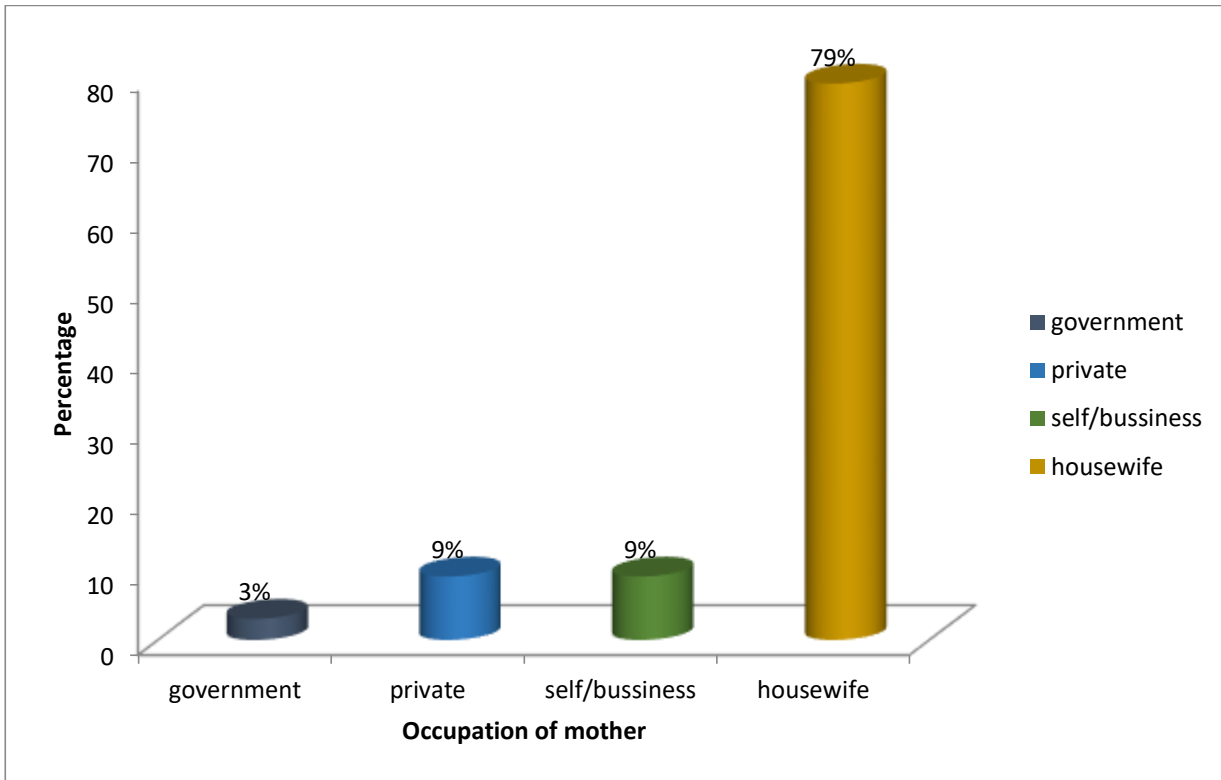


Figure 6: Diagram showing percentage distribution of adolescent girls according to the occupation of their mother.

Figure 6 shows that 3% were government employees, 9% were private employees, 9% were having self/business and 76% were housewives.

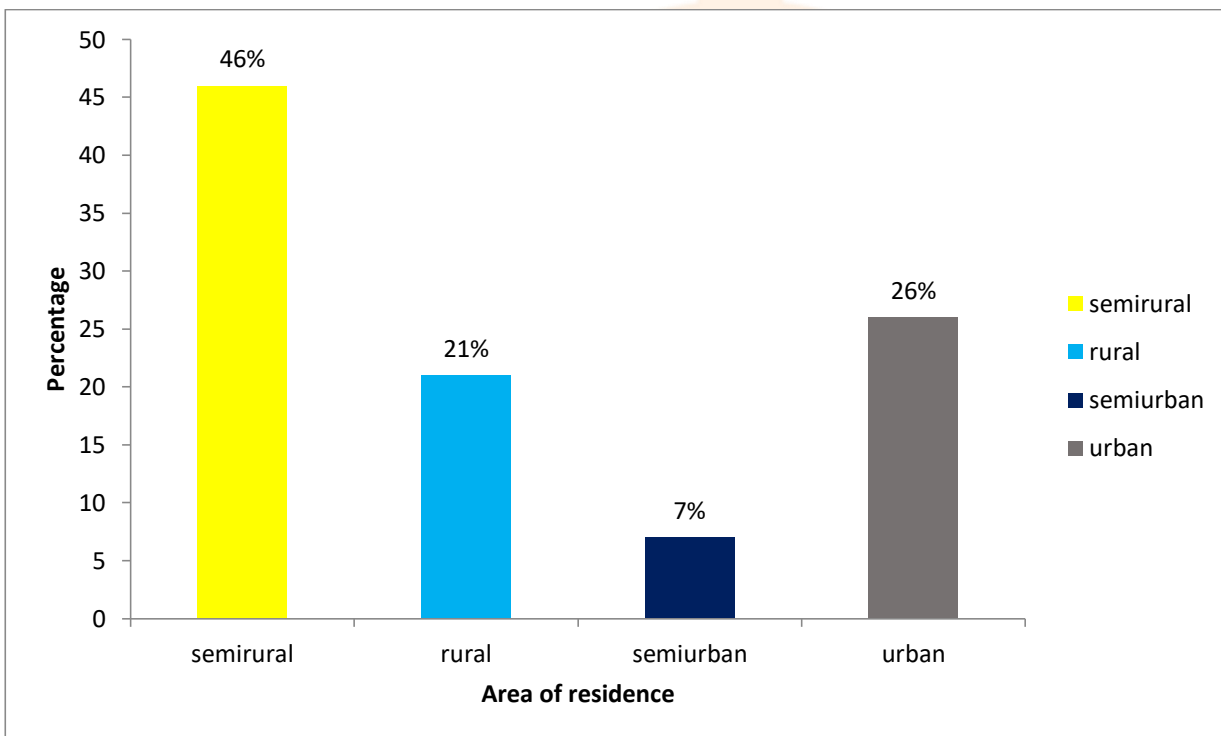


Figure 7: Diagram showing percentage distribution of adolescent girls according to their area of residence.

Figure 7 shows that out 100 participants, 46% were living in semi rural area, 21% were in rural area, 7% were living in semi urban area and 26% were in urban area.

(N=100)

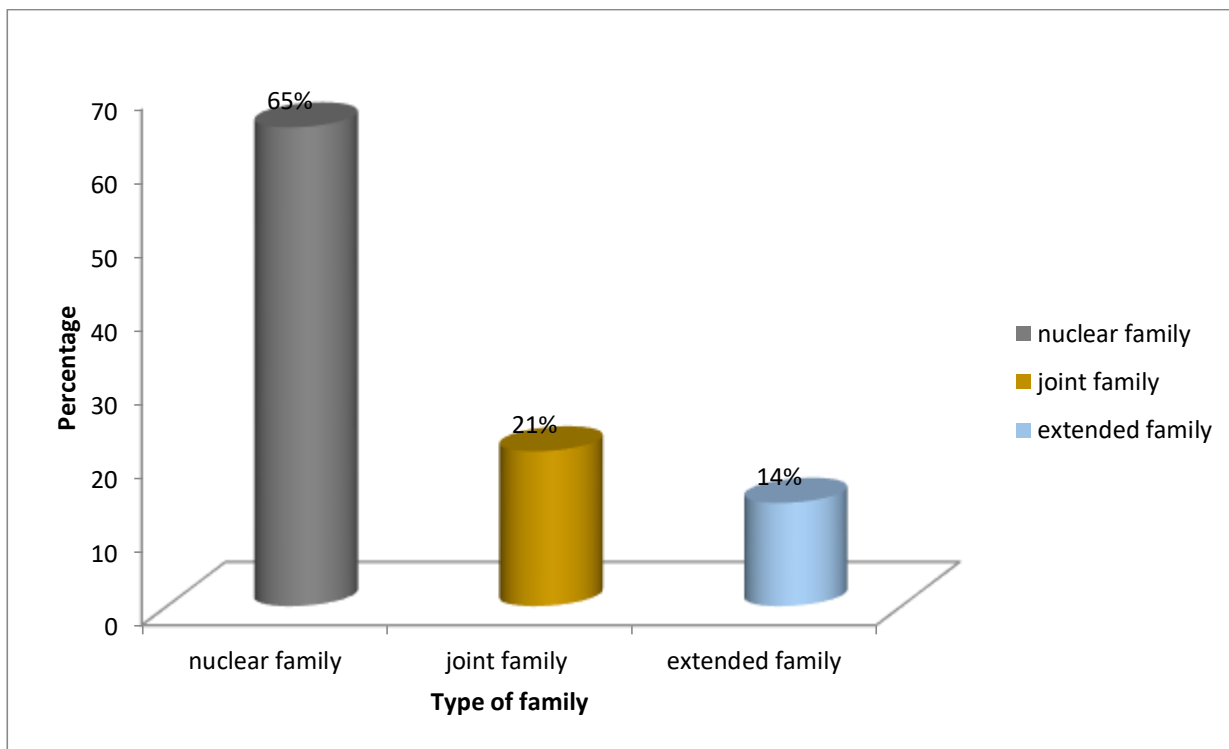
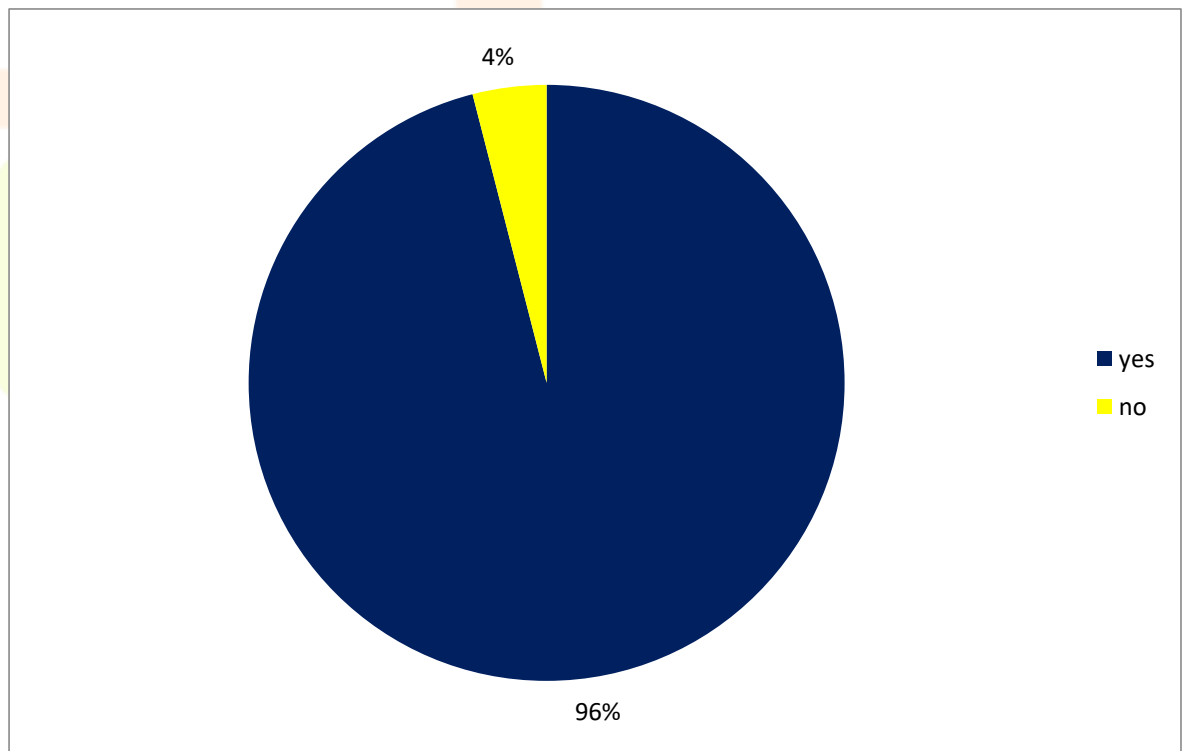


Figure 8: Diagram showing percentage distribution of adolescent girls according to their type of family.

Figure 8 shows that 65% were from nuclear family, 21% were from joint family and 14% were from extended family.



(N=100)

Figure 9: Diagram showing percentage distribution of adolescent girls according to their previous knowledge regarding reproductive health.

Figure 9 shows that 96% had previous knowledge regarding reproductive health and 4% didn't have any knowledge regarding reproductive health.

(N=96)

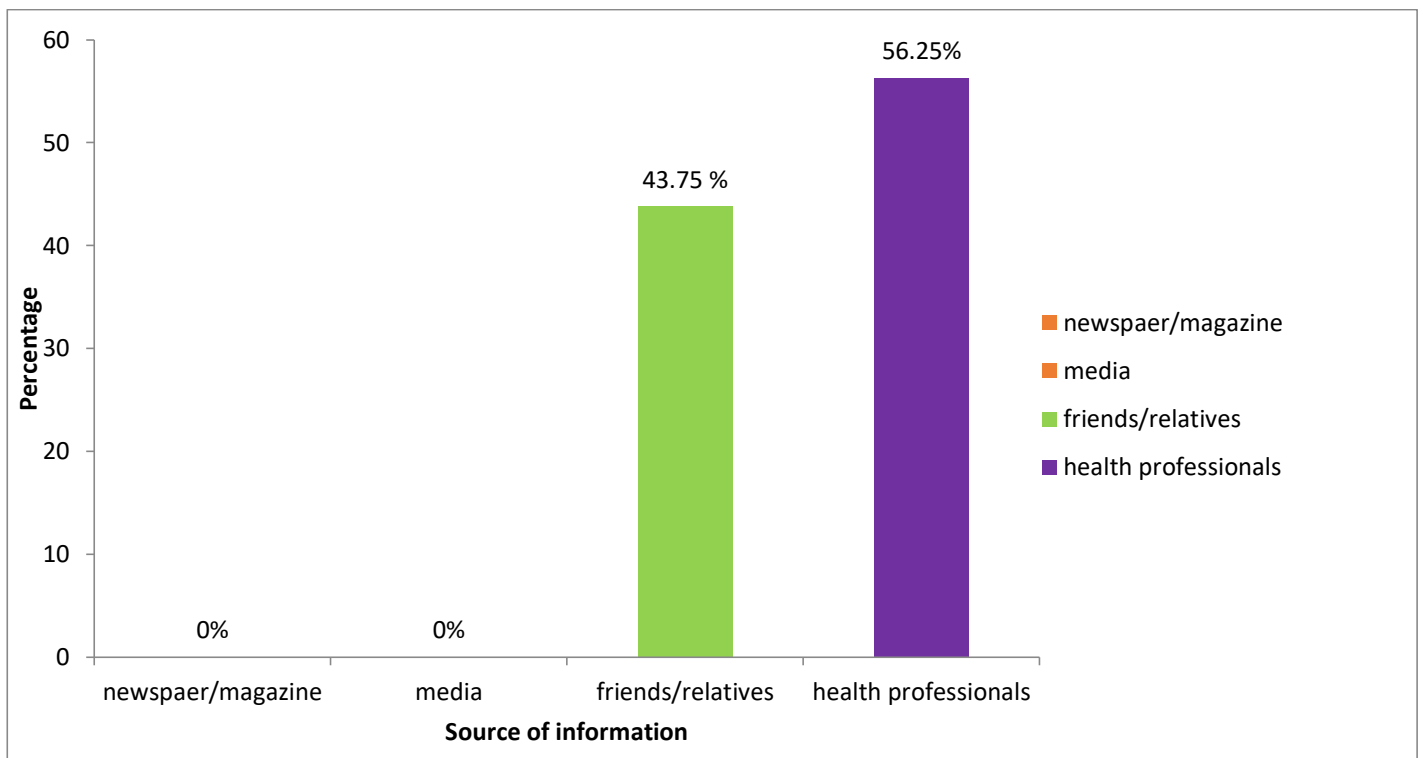


Figure 10: Diagram showing percentage distribution of adolescent girls according to their source of information.

Figure 10 shows that 43.75% got knowledge from friends/relatives and 56.25% got knowledge from health professionals.

Frequency and Percentage distribution of knowledge scores among adolescent girls regarding reproductive health.

Table 2: Frequency and Percentage distribution of pretest knowledge scores.

Score	Score range	Frequency	Percentage
0-14	Poor	52	52%
15-22	Adequate	48	48%
23-30	Good	0	0%

Data in Table 2 shows that, 52% participants had poor knowledge, remaining 48% participants had adequate knowledge and no one had good knowledge.

Table 3: Frequency and percentage distribution of posttest knowledge scores.

Score	Score range	Frequency	Percentage
0-14	Poor	0	0%
15-22	Adequate	29	29%
23-30	Good	71	71%

Data in table 3 shows that, 71% of participants had good knowledge and remaining 29% had adequate knowledge and no one had poor knowledge.

Section B: Knowledge was assessed using ‘frequency and and percentage’. The data was tabulated and analysed in terms of frequency, percentage, mean and standard deviation

Section C: The effectiveness of structured teaching program on knowledge regarding reproductive health was analyzed by using paired ‘t’ test.

The knowledge score was assessed using structured knowledge questionnaire. The score range was categorized as poor (0-14), adequate (15-22) and good (23-30).

Table 4: Mean, standard deviation, t’ value of pretest and posttest knowledge scores of adolescent girls regarding reproductive health.

	N	Mean	SD	t
Pretest	100	14.4	2.20	
Posttest	100	23.96	10.28	25.81

t = 1.96, significant at 0.05 level.

The data presented in the table 4 shows that the posttest score (23.96) greater than pretest score (14.4) on knowledge of reproductive health. The t’ value (25.81) is greater than table value (1.96). Hence hypothesis H₁ which states that There will be significant difference between pretest and posttest knowledge scores on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools was accepted. It shows that structured teaching programme was effective in increasing the knowledge of adolescents regarding reproductive health.

Section D: Association between Pretest knowledge scores regarding Reproductive health among adolescents girls in selected higher secondary schools, Kollam and selected demographic variables was analyzed by using chi-square test.

Table 5 : Association between knowledge and selected demographic variables.

Variables	Knowledge			df	Chi square value	Table value	Significance
	Poor	Adequate	Good				
1.Age							
13 years	27	19	0	1	2	3.84	NS
14 years	24	30	0				
2.Religion							
Hindu	4	5	0				
Christian	0	0	0	1	0.17	3.84	NS
Muslim	47	44	0				
Any other	0	0	0				
3.Education of father							
Primary	2	1	0				
High school	30	21	0	3	6.42	7.82	NS
Higher secondary	16	16	0				
Graduation and above	3	11	0				
4.Education of mother							
Primary	4	2	0				
High school	22	16	0	3	9.47	7.82	S
Higher secondary	18	11	0				

Graduation and above	7	20	0
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5.Occupation of father

Government	1	2	0
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Semi-government	2	1	0	3	0.62	7.82	NS
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Private	15	13	0
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Self/Bussiness	33	33	0
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6.Occupation of mother

Government	0	3	0
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Private	5	5	0	3	3.55	7.82	NS
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Self/Bussiness	5	3	0
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Housewife	41	38	0
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7.Area of residence

Semirural	25	21	0
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Rural	7	13	0
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Semiurban	5	2	0	3	3.41	7.82	NS
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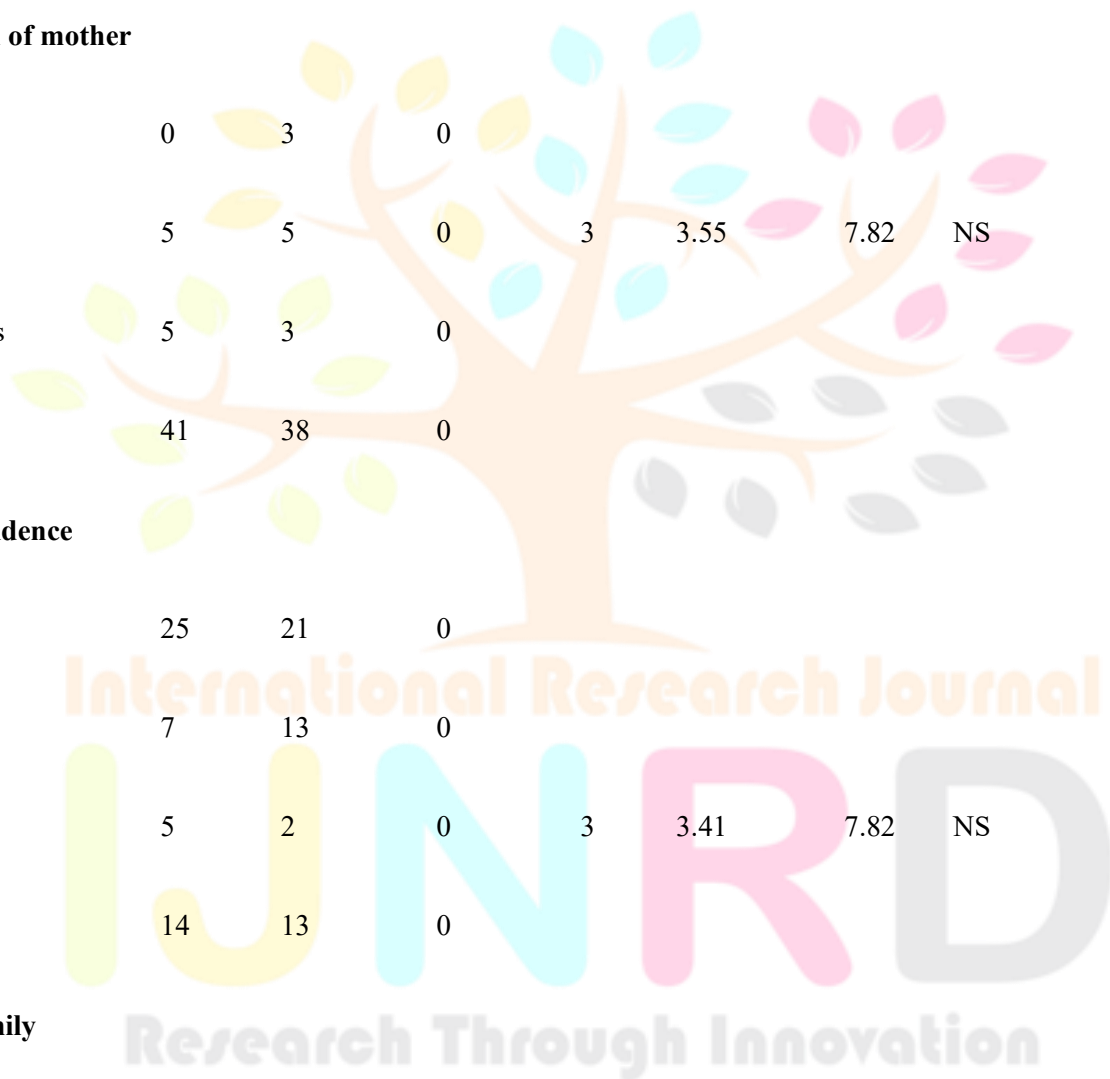
Urban	14	13	0
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8.Type of family

Nuclear family	31	34	0
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Joint family	11	11	0	2	1.99	5.99	NS
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Extended family	9	4	0
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9.Previous knowledge regarding reproductive health

Yes	49	48	0	1	0.3	3.84	NS
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No	2	1	0				
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If yes, source of information

Newspaper/ Magazine	0	0	0				
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Media	0	0	0	1	1.32	3.84	NS
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Friends/Relatives	19	24	0				
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Health professional	30	24	0				
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S – Significant

NS – Non significant

The data presented in table 5 shows the association was computed by using chi square test. It was inferred that the present study shows no association between knowledge regarding reproductive health and demographic variables except the variable ‘education of mother’. Regarding age, the calculated value 2 is lesser than table value 3.84 at 0.05 level of significance. Regarding religion, the calculated value 0.17 is lesser than table value 3.84 at 0.05 level of significance. Regarding education of father, the calculated value 6.42 is lesser than table value 7.82 at 0.05 level of significance. Regarding education of mother, the calculated value 9.47 is greater than table value 7.82 at 0.05 level of significance. Regarding occupation of father, the calculated value 0.62 is lesser than 7.82 at 0.05 level of significance. Regarding occupation of mother, the calculated value 3.55 is lesser than table value 7.82 at 0:05 level of significance. Regarding area of residence, the calculated value 3.41 is lesser than table value 7.82 at 0.05 level of significance. Regarding type of family, the calculated value 1.99 is lesser than table value 5.99 at 0.05 level of significance. Regarding previous knowledge on reproductive health, the calculated value is 0.30 is less than table value 3.84 at 0.05 level of significance. Regarding source of information, the calculated value 1.32 is lesser than table value 3.84 at 0.05 level of significance. The result revealed that there was association between knowledge score with demographic variable ‘education of mother’ only. There was no significant association between knowledge and demographic variables such as age, religion, education of father, occupation of father, occupation of mother, area of residence, type of family and previous knowledge regarding reproductive health at 0.05 level of significance. Hence hypothesis H₂. There will be significant association between the pretest knowledge scores on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam with selected demographic variables (age, religion, education of father, education of mother, area of residence, type of family, previous knowledge regarding reproductive health) was partially accepted.

CHAPTER V

RESULT

The present study was conducted to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam. The data were collected from 100 adolescent girls who met criteria for study. The data were interrupted on the basis of statistical analysis related to the objectives and need for the study. This chapter discusses the major finding of them in terms of results from other studies.

OBJECTIVES

1. To assess the knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.
2. To assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls in higher secondary schools, Kollam.
3. To find out the association between pretest knowledge scores regarding reproductive health among adolescent girls in higher secondary schools and selected demographic variables.

HYPOTHESES

All hypotheses were tested at 0.05 level of significance.

H₁: There will be significant difference between pretest and posttest knowledge scores regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam.

H₂: There will be significant association between the pretest knowledge scores regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam with selected demographic variables (age, religion, education of father, education of mother, area of residence, type of family, previous knowledge regarding reproductive health).

Major findings of the study sample

Section A: sample characteristics; description of demographic variables under study.

This section deals with the result of the sample characteristics under study. It included age, religion, education of father, education of mother, occupation of father, occupation of mother, area of residence, type of family, previous knowledge regarding reproductive health and source of their information. The demographic characteristics of the selected samples were analyzed using descriptive statistics including frequency and percentage distribution.

Demographic data

- Regarding the age of the sample, out of 100 sample, 47% were in the age group of 13 years and 53% were in the age group of 14 years.
- Regarding the religion of the sample, out of 100 sample, 91% were Muslims and 9% were Hindus.
- Regarding the education of father, 3% had primary level education, 50% had high school level education, 29% had higher secondary level education and 14% were graduates or above.
- Regarding the education of mother, 6% had primary level education, 37% had high school level education, 29% had higher secondary level education and 28% were graduates or above.
- Regarding the occupation of father, 3% were government employees, 4% were semi government employees, 28% were private employees and 65% were having self /business.
- Regarding the occupation of mother, 3% were government employees, 9% were private employees, 9% were having self/business and 76% were housewives.
- Regarding the area of residence, 46% were living in semi rural area, 21% were in rural area ,7% were living in semi urban area and 26% were in urban area.
- Regarding the type of family, 65% were from nuclear family, 21% were from joint family and 14% were from extended family.
- Regarding the previous knowledge about reproductive health, 96% had previous knowledge regarding reproductive health and 4% didn't have any knowledge regarding reproductive health.
- Regarding the source of information, 43.75% got knowledge from friends/relatives and 56.25% got knowledge from health professionals.

SECTION B: Evaluation of effectiveness of structured teaching programme on knowledge regarding reproductive health among adolescent girls.

Comparison of pretest and posttest knowledge score on knowledge regarding reproductive health among adolescent girls.

Mean, standard deviation, 't' value of pretest and posttest knowledge scores of adolescent girls regarding reproductive health were computed. The calculated paired 't' value (25.81) was greater than table value (1.98) at 0.05 level of significance. Hence the research hypothesis H_1 – There will be significant difference between pretest and posttest knowledge scores on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools was accepted. This study confirmed that structured teaching program was effective in increasing the knowledge level of the adolescent girls regarding reproductive health.

SECTION C: Association between Pretest knowledge scores on knowledge regarding reproductive health among adolescent girls and selected demographic variables.

The association of pretest knowledge score of adolescent girls with selected demographic variables like age, religion, education of father, education of mother, occupation of father, occupation of mother, area of residence, type of family, previous knowledge regarding reproductive health and it's source of information

were computed by chi- square. In this study, there is significant association between knowledge and demographic variable education of mother (calculated value is greater than table value at 0.05 level of significance) and no significant association between knowledge and demographic variables such as age, religion, education of father, occupation of father, occupation of mother, area of residence, type of family, previous knowledge regarding reproductive health and it's source of information (calculated value is lesser than table value at 0.05 level of significance).



CHAPTER VI

DISCUSSION, SUMMARY AND CONCLUSION

This chapter presents the major findings of the study and discusses them in relation to similar studies conducted by other investigators followed by the summary of the findings Then the implications and recommendations for professional practice and future research and finally with limitations and a brief summary.

DISCUSSION

The present study was conducted to assess the effectiveness of structured teaching program on knowledge regarding Reproductive health among adolescent girls in Government Vocational higher secondary school, Thattamala .In order to achieve the objectives of the study, pre- experimental one group pretest posttest research design was adopted. The subjects were selected by convenient sampling technique. The sample consisted of 100 adolescent girls studying in higher secondary school, Kollam. The findings of the study have been discussed in relation to the objectives and other similar studies.

The objectives of the study:

- To assess the knowledge regarding Reproductive health among adolescent girls in Government vocational higher secondary school, Thattamala.
- To assess the effectiveness of structured teaching program on knowledge regarding Reproductive health among adolescent girls.
- To find out the association between pretest knowledge scores regarding rereproductive health among adolescent girls in higher secondary school and selected demographic variables.

Discussion of findings with other studies based on objectives:

1. To assess the knowledge regarding Reproductive health among adolescent girls:

The present study revealed that 48% of adolescent girls had adequate knowledge, 52% had poor knowledge and 0% had good knowledge .The above findings are supported by a study which was conducted to assess the impact of planned teaching program on family life education at high school in Ankuki, Berhampur. In this study 30.67% adolescent girls had knowledge regarding structural anatomy and physiology of reproductive organs and 69.33% girls had knowledge regarding reproductive tract infections.¹⁵

2. To assess the effectiveness of structured teaching program on reproductive health among adolescent girls:

In this present study, pretest shows 48% of adolescent girls had adequate knowledge and 52% had poor knowledge and 0% had good knowledge. After structured teaching program, The posttest shows 29% of adolescent girls had adequate knowledge and 71% had good knowledge and 0% had poor knowledge. The above findings are supported by a study which was conducted at high schools of

Berhampur. In this study, regarding nutrition the average score increased from 39.24% to 88.85%. Regarding knowledge of high risk behaviour the score increased from 19.44% to 82.87%.The knowledge on anatomy and physiology of reproductive organs, AIDS and STD , reproductive health and personal hygiene etc also improved significantly after structured teaching program.¹⁵

3. Association between knowledge regarding Reproductive health among adolescent girls and selected demographic variables:

The present study showed significant association between knowledge and education of mother (calculated value is greater than table value at 0.05 significance)and no significant association between knowledge and demographic variables such as age, religion, education of father, occupation of father, occupation of mother, area of residence, type of family , previous Knowledge and source of information. The above findings are supported by a study which was conducted to assess the impact of planned teaching program on family life education at high school in Ankuki, Berhampur.144 adolescent girls were participated in this study. This study showed significant association between knowledge and demographic variables such as age, religion, area of residence, education of father and mother.¹⁵

MAJOR FINDINGS

In the present study the demographic data revealed that out of 100 sample , 47% were in the age group of 13 years and 53% were in the age group of 14 years. Regarding the education of father 3% had primary level education, 50% of had education up to high school level, 29% had higher secondary level and 14% were graduates & above. Regarding the education of mother, 6% had primary level , 37% of father's had education up to high school level, 29% had higher secondary level and 28% were graduates & above. Regarding the religion of the sample, out of 100 sample 91% were Muslims and 9% were Hindus. Regarding the occupation of father, 3% were government employees, 4% were semi government employees , 28% were private employees and 65% were having self /business. Regarding the occupation of mother, 3% were government employees, 9% were private employees , 9% were having self/business and 76% were housewife. Regarding the area of residence, 46% were living in semi rural area , 21% were in rural area ,7% were living in semi urban area and 26% were in urban area. Regarding the type of family, 65% were from nuclear family, 21% were from joint family and 14% were from extended family. Also the study revealed that 96% had previous knowledge regarding reproductive health and 4% didn't have any knowledge regarding reproductive health. The main source of information, was from health professionals (56.25%).

Pretest shows that 52% adolescent girls had poor knowledge regarding reproductive health, 48% had adequate and none of the girls had good knowledge. After intervention study 71% girls had good knowledge 29% had adequate knowledge and none of the girls had poor knowledge regarding reproductive health. So this revealed that structured teaching program on knowledge regarding reproductive health among adolescent girls was effective

The association was found by using chi square test. It was inferred that the present study showed significant association between knowledge and demographic variable 'education of mother' (calculated value is greater than table value at 0.05 level of significance) and no significant association between knowledge and demographic variables such as age, religion, education of father, occupation of father, occupation of mother, area of residence, type of family, previous knowledge regarding reproductive health and its source of information.(calculated values were lesser than table values at 0.05 level of significance).

CONCLUSION

The present study was conducted to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools, Kollam. Nursing implication of the study included in the area of nursing practice, nursing education, nursing administration and nursing research are given below.

NURSING PRACTICE

- The study findings revealed the importance of nurses role in providing information for improving the knowledge of adolescent girls towards reproductive health.

NURSING EDUCATION

- Teaching the adolescents how to maintain reproductive health, as they need access to accurate information. They must be informed and empowered to protect themselves from RTI's.
- Nursing curriculum should provide opportunities for adolescents to know more about reproductive health.
- Seminars, workshops, conferences should be organized in nursing institutions and educational institutions to improve their knowledge regarding reproductive health.

NURSING RESEARCH

Research should be directed for exploring and updating the knowledge of nurses regarding reproductive health.

This study can be a baseline for the future studies to build upon and motivate other investigators to conduct further study.

NURSING ADMINISTRATION

- Nursing administrators must organize service training and continuing education for nurses to get indepth knowledge regarding reproductive health..
- Nursing administrators should ensure Health education to the public regarding reproductive health.

DELIMITATIONS

The study was conducted with a sample size of 100, so generalization was only possible for the selected population.

RECOMMENDATIONS

Based on the findings of the study, it is recommended that:

- Similar kind of study can be conducted for a larger group.
- A similar study can be conducted for women belong to the age group between 25-30 years
- A study can be conducted to assess the knowledge regarding reproductive health among housewives.

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APPENDIX A

INSTITUTIONAL ETHICS CLEARANCE CERTIFICATE



BISHOP BENZIGER COLLEGE OF NURSING

Post Box No: 46, Sastri Jn., Kollam - 01

(Accredited by KUHS with A+ and Re-accredited by NAAC with B++)

Estd:2004 Website: www.bbconkollam.org email id: office@bbcon.ac.in | Ph. No: 0474 - 2765582



BBCON/1312/23

25/01/2024

From
P V Greeshma
Secretary
Research Committee
Bishop Benziger College of Nursing
Kollam

To
The Principal
Bishop Benziger College of Nursing
Kollam.

Respected Madam,

Subject: Permission to conduct the Research project as a part of BSc Nursing program

I am pleased to inform you that the research committee has reviewed the proposal submitted by, Group X(2020-24) titled, "A Study to assess the effectiveness of structured teaching programme on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools Kollam" under the guidance of Mrs. P. V. Greeshma, Asst. Professor, Obstetrical & Gynecological Nursing Department. As the proposal does not show any conflict of interest with the institution, the request may be granted.

We appreciate the group initiatives and are ready to support this research study at our best.

Thanking You,
Yours Sincerely


P V Greeshma


Signature of Principal 26.1.24

Dr. ANNAL ANGELENE
M.Sc., Ph.D (N)
PRINCIPAL
BISHOP BENZIGER COLLEGE OF NURSING
KOLLAM - I, KERALA





Recognized by IBC & KNMC and Affiliated to Kerala University of Health Sciences.



APPENDIX B

LETTER SEEKING PERMISSION TO CONDUCT PILOT STUDY

 **BISHOP BENZIGER COLLEGE OF NURSING**
Post Box No 46, Sastri Jn., Kadappakkada, Kollam - 691001
(Accredited by KUHS with A+ and Re-accredited by NAAC with B++)
Estd: 2004 Website: www.bbconkollam.org email id: office@bbcon.ac.in Ph. No: 0474-2765582



BBCON/1019/23 **13/10/2023**

To
The Principal
Vimala Hridaya H.S.S
Kollam

Respected Sir/Madam,

Sub: Request- Conducting Pilot Study and Reliability Test-reg:-

The following III year B.Sc. Nursing students of Bishop Benziger College of Nursing would like to conduct a pilot study and reliability test as a part of their curriculum.

The title of the study is as follows:

"A study to assess the effectiveness of structured teaching programme on knowledge regarding reproductive health among adolescent girls studying in selected higher secondary schools, Kollam."

We request you to kindly extend necessary facilities in the school to work on the proposed study on 17/10/2023.


Name of the Students

1. Aleena L
2. Lavanya S Nair
3. Shahana Shuji
4. Sherin Joseph
5. Surya Murukan

Thanking you,
Yours faithfully

An. Anand Anshu
Principal
13/10/23

Sr. Sordasha K.
SESCOLASTICAE
Headmistress
Vimala Hridaya H.S.S For Girls
Pattathanam Kollam - 691 021
PEN : 664289



Recognized by INC & KNMC and Affiliated to Kerala University of Health Sciences.

APPENDIX C

LETTER SEEKING PERMISSION TO CONDUCT MAIN STUDY

 **BISHOP BENZIGER COLLEGE OF NURSING**
Post Box No 46, Sastri Jn., Kadappakkada, Kollam - 691001
(Accredited by KUHS with A+ and Re-accredited by NAAC with B++)
Estd: 2004 Website: www.bbconkollam.org email id: office@bbcon.ac.in Ph. No: 0474-2765562

BBCON/1016/23 **25/10/2023**

To
The Principal
Govt. Vocational H.S.S
Thattamala
Kollam

Respected Sir/Madam,

Sub: Request- Conducting Research Study-reg:-

The following III year B.Sc. Nursing students of Bishop Benziger College of Nursing would like to conduct a research study as a part of their curriculum.

The title of the study is as follows:

"A study to assess the effectiveness of structured teaching programme on knowledge regarding reproductive health among adolescent girls studying in selected higher secondary schools, Kollam."

We request you to kindly extend necessary facilities in the school to work on the proposed study from 06/11/2023 to 11/11/2023.

Name of the Students

1. Aleena L.
2. Lavanya S Nair
3. Shubana Shaji
4. Sherin Joseph
5. Surya Murukan

Thanking you,
Yours faithfully


Principal

Dr. ANOOPA. K.R. Ph.D (N)
PRINCIPAL
BISHOP BENZIGER COLLEGE OF NURSING
KOLLAM - 1, KERALA




- MINILAKSHMI (19823)
Headmistress
Govt. Vocational Higher
Secondary School
Eravipuram, Thattamala
Kollam-691023

permission granted

Recognized by INC& KNMC and Affiliated to Kerala University of Health Sciences.

APPENDIX D

LETTER SEEKING OPINION AND SUGGESTIONS OF THE EXPERTS FOR CONTENT VALIDITY AND TOOL

From,

Ms.Aleena.L

Ms.Lavanya S Nair

Ms.Shabana Shaji

Ms.Sherin Joseph

Ms.Surya Murukan

3rd year Bsc Nursing (2020-2024)

Bishop Benziger College of Nursing

Kollam.

To,

.....

Respected Sir/Madam,

Sub: Seeking permission for content validation of the research tool.

We, Ms.Aleena.L ,Ms.Lavanya S Nair, Ms.Shabana Shaji, Ms.Sherin Joseph, Ms.Surya Murukan,3rd year Bsc Nursing students of Bishop Benziger College of Nursing would request you to kindly validate our research tool on “ **A study to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls studying in selected higher secondary schools, Kollam** “.I would be obliged if you kindly affirm your acceptance to undersigned with your valuable suggestions on this topic .I had attached the details of my study along with the research tool.

Thanking you

Yours sincerely

Date:

Ms.Aleena.L

Place:

Ms.Lavanya S Nair

Ms.Shabana Shaji

Ms.Sherin Joseph

Ms.Surya Murukan

APPENDIX E

TOOL AND CONTENT VALIDATION CERTIFICATE

This is to certify that I have validated the tool of Ms.Aleena L , Ms.Lavanya S Nair , Ms.Shabana Shaji , Ms.Sherin Joseph Ms.Surya Murukan, 3rd year Bsc Nursing students who is undertaking the following study on **“A study to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls studying in selected higher secondary schools, Kollam”**.

Place :

Signature of the expert:

Date :

Designation and address:



APPENDIX F

ACCEPTANCE FORM FOR TOOL VALIDATION AND CONTENT VALIDATION

Name :

Designation :

Name of institution. :

.....

.....

STATEMENT OF ACCEPTANCE OR NON ACCEPTANCE

I give my acceptance/non acceptance to validate the tool on the topic “ **A study to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls studying in selected higher secondary schools, Kollam**”.

Place :

Date:

Signature. :

Name. :



APPENDIX G**CRITERIA RATING SCALE FOR EVALUATING AND VALIDATING THE TOOL**

Kindly go through the content and place tick mark (✓) against questionnaires in the following column ranging from relevant to not relevant kindly give your opinion in the remark column.

TOOL 1: DEMOGRAPHIC PROFORMA

ITEM NO :	RELEVANT	NEEDS MODIFICATIONS	NOT RELEVANT	REMARKS
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				

Any other suggestions:

TOOL NO 2: STRUCTURED KNOWLEDGE QUESTIONNIRE

ITEM. NO	RELEVANT	NEEDS MODIFICATION	NOT RELEVANT	REMARKS
1				
2				
3				
4				
5				
6				
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29				
30				

Any other suggestions:

APPENDIX H

LIST OF EXPERTS WHO VALIDATED THE TOOL

1. Dr. Minupriya S
Consultant Gynecologist and Laparoscopic Surgeon
Bishop Benziger Hospital
Kollam
2. Dr. Annal Angeline
Principal
Bishop Benziger College of Nursing
Kollam
3. Dr. Sindha H Mendez
Academic Professor
Bishop Benziger College of Nursing
Kollam
4. Mrs. Sheeja S
Associate Professor
Department of Community Health Nursing
Bishop Benziger College of Nursing
Kollam
5. Mrs. Jyothilekshmi
Assistant Professor
Bishop Benziger College of Nursing
Kollam



APPENDIX I

INFORMED CONSENT OF PARENT

In signing this document, I _____ mother/father of _____ hereby accord consent for the research study conducted by Ms. Surya Murukan, Ms. Sherin Joseph, Ms. Shabana Shaji, Ms. Lavanya S Nair and Ms. Aleena.L, Bsc Nursing students, Bishop Benziger College of Nursing, Kollam on **“A Study to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls studying in selected higher secondary schools, Kollam”**.

I understand that my child will have to give information for a questionnaire to assess her knowledge regarding reproductive health as a part of the study. I have been informed that my willingness for my child to participate in the study is entirely voluntary. During the course of the study, my child can withdraw from study. I have been told that my child's answers to the questions will be kept strictly confidential and will not be published personally and I have no financial commitments for the study.

I will honor all agreements

Signature of parent:

Signature of investigator:

Place :

Date :



APPENDIX J

INFORMED ASSENT FOR ADOLESCENT GIRLS

I , Kum_____ is agreeing to participate in the research study conducted by Ms. Surya Murukan, Ms. Sherin Joseph, Ms. Shabana Shaji, Ms. Lavanya S and Ms. Aleena.L, Bsc Nursing students in Bishop Benziger College of Nursing, Kollam on the topic: “ **A Study to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls studying in selected higher secondary schools, Kollam**” . My participation in this study is voluntary. I know that during the course of research study I can even withdraw from the study. I do also solemnly declare that my findings of the research will not be used for any other purpose. I am happy to add that I have no financial commitments for the same.

Name of the research participants :

Signature :

Name of the witness :

Signature :

Place :

Date :



APPENDIX K**PARTICIPANT INFORMATION SHEET**

Respected Madam/Sir

We, Ms. Surya Murukan, Ms. Sherin Joseph, Ms. Shabana Shaji, Ms. Lavanya S Nair, Ms. Aleena, Bsc Nursing students, Bishop Benziger College of Nursing, Kollam is conducting a study titled as "**A Study to assess the effectiveness of structured teaching program on knowledge regarding reproductive health among adolescent girls studying in selected higher secondary schools, Kollam**". This study is focused on knowledge regarding reproductive health among adolescents girls studying in selected higher secondary schools, Kollam.

In the study, investigator will approach the students, explain the nature of study, purpose and establish a strong rapport. At first socio personal and health related data is collected and then a questionnaire will be used to collect data regarding the knowledge of reproductive health. Afterwards a structured teaching program will be conducted by the investigator for "30 minutes" duration. Students will be subjected to the study. Pretest will be performed to assess the knowledge of the students on the first day and then structured teaching program will be given for 30 minutes and post test will be conducted to assess the knowledge regarding reproductive health after 7 days using same questionnaire among students.

The participants have voluntarily involved in the study. There is no extra checkup or complications due to study. No expenses will be increased on the participation for research purpose. The participants are free to withdraw from the study at any point of time whenever they need. The information gathered will be kept strictly confidential and will be used for study purpose only.

Yours faithfully,

Name of participant:

Signature :

Date:

Name of researcher:

Signature:

Date:

APPENDIX L**SECTION A : DEMOGRAPHIC PROFORMA****INSTRUCTIONS**

- Following questions are related to your personal information.
- Answer all the questions given below.
- All information will be kept confidential.
- Put tick (✓) mark in appropriate basis.

1. Age. :

2. Religion

- a) Hindu.
- b) Christian
- c) Muslim
- d) Any other

3. Education of Father.

- a) Primary
- b) High school
- c) Higher secondary
- d) Graduation & above

4. Education of Mother.

- a) Primary
- b) High school
- c) Higher secondary
- d) Graduation & above

5. Occupation of Father.

- a) Government
- b) Semi government
- c) Private
- d) Self/Business

6. Occupation of Mother.

- a) Government.
- b) Private
- c) Self/ Bussiness
- d) Housewife

7. Area of residence.

- a)Semirural
- b) Rural

c) Semiurban

d) Urban

8. Type of family

a) Nuclear family

b) Joint family

c) Extended family

9. Previous knowledge regarding reproductive health.

a) Yes.

b) No.

If Yes , sources of information

a) Newspaper / Magazine

b) Media

c) Friends / Relatives

d) Health professionals

SECTION B : STRUCTURED KNOWLEDGE QUESTIONNAIRE REGARDING REPRODUCTIVE HEALTH

INSTRUCTIONS

Following statements are related to reproductive health. Read the following questions carefully, select the correct answer and put tick mark in the appropriate boxes and each correct answer carries one mark. No negative mark on wrong answer.

1) According to WHO, Reproductive age refers to

a) 11-45 years

b) 13-48years

c) 15-49 years

d) 18-50 years

2) According to WHO, adolescent age refers to

a) 10-15 Years

b) 10-18 years

c) 10-19 years

d) None of the above

3) Reproductive health refers to

- a) Personal
- b) Free from infections
- c) Personal hygiene and proper caring of reproductive organs
- d) None of the above

4) According to WHO, reproductive health is the total well being of

- a) Behavioural aspects
- b) Physical and emotional aspects
- c) Social aspects
- d) All of the above

5) The key nutrient needed for adolescent girls

- a) Calcium
- b) Iron
- c) Vitamin D
- d) All of the above

6) The external reproductive organ

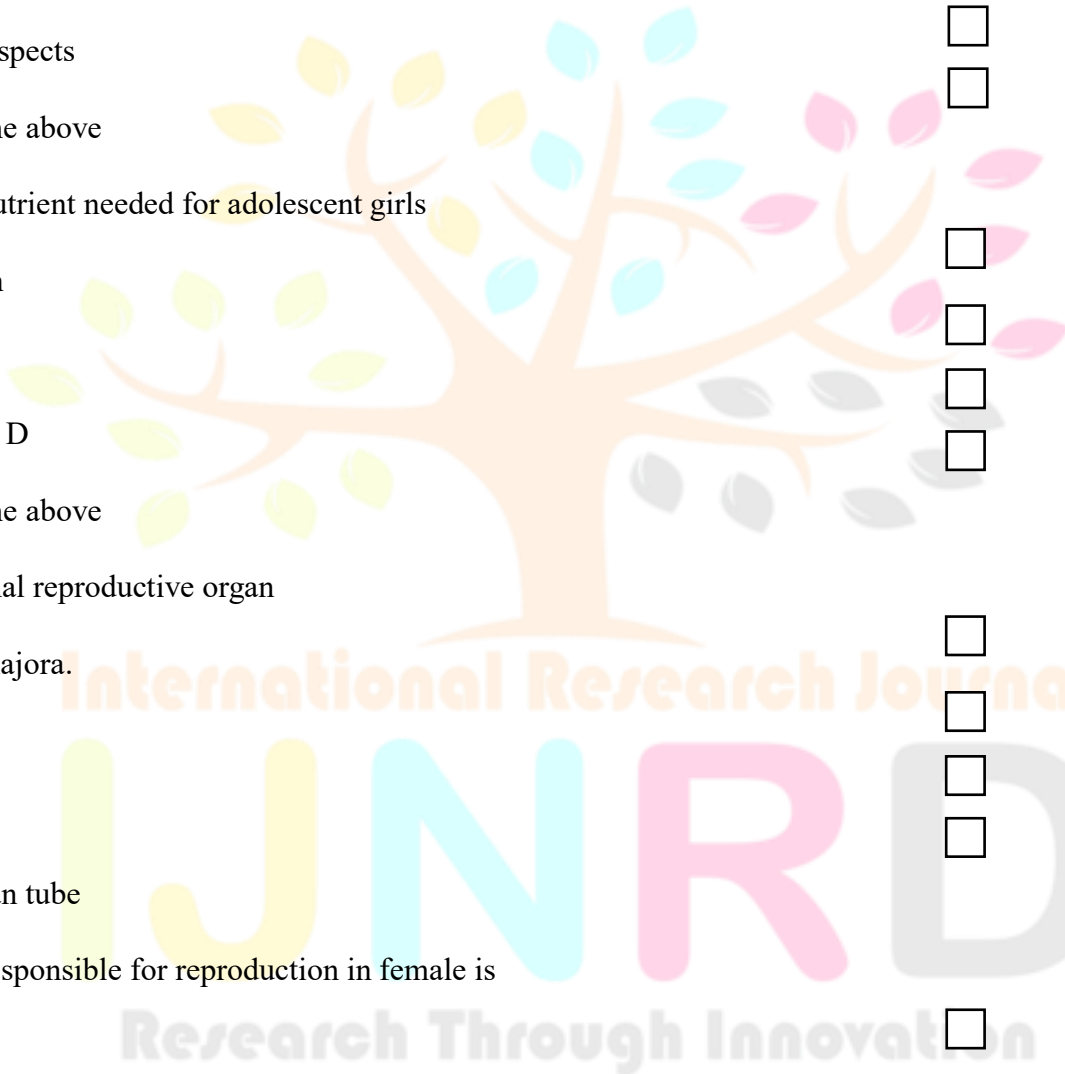
- a) Labia majora.
- b) uterus.
- c) Ovary.
- d) Fallopian tube

7) The cell responsible for reproduction in female is

- a) Ovum
- b) Sperm.
- c) Ovary
- d) Utreus

8) The organ which produces the ovum is called

- a) Urethra
- b) Vagina



c) Fallopian tubes

d) Ovaries

9) The Internal reproductive system include

a) Labia majora

b) Labia minora

c) Clitoris

d) Vagina

10) Number of ovaries in female reproductive system

a) 1

b) 2

c) 3

d) 4

11) Uterus lies between

a) Bladder and rectum

b) Cervix and vagina

c) Fallopian tube and ovary

d) Rectum and anus

12) Menstruation usually starts at the age between

a) 8-10 years

b) 11-13 years

c) 14-16 years

d) 17-19 years

13) Menstrual cycle occurs once in every

a) 5 days

b) 28 days.

c) 60 days

d) 90 days.

14) Average day of menstruation

a) 2-3 days

b) 5-7 days

c) 6-8 days

d) 10-15 days

15) Ovulation means

a) Bleeding from uterus.

b) Enlargement of Ovary.

c) Release of egg from ovary.

d) None of the above.

16) Menstrual hygiene means

a) Maintaining hygiene during menstruation

b) Maintaining personal hygiene

c) Maintaining perineal hygiene

d) Maintaining hand hygiene

17) Menstrual cup is made up of

a) Cotton

b) Paper

c) Plastic

d) Rubber.

18) Menstrual cup can be placed upto

a) 2-4 hours.

b) 3-6 hours.

c) 4-8 hours

d) 6-12 hours

19) Advantages of menstrual cup

a) It is affordable

b) It is safer than tampon

- c) Eco friendly
- d) All of the above

20) Menstrual cup should be emptied in

- a) sink.
- b) Open place
- c) Toilet
- d) None of the above

21) The painful menstruation means

- a) Amenorrhea
- b) Dysmenorrhea
- c) Endometriosis
- d) Oligomenorrhea

22) Sanitary pad should be changed

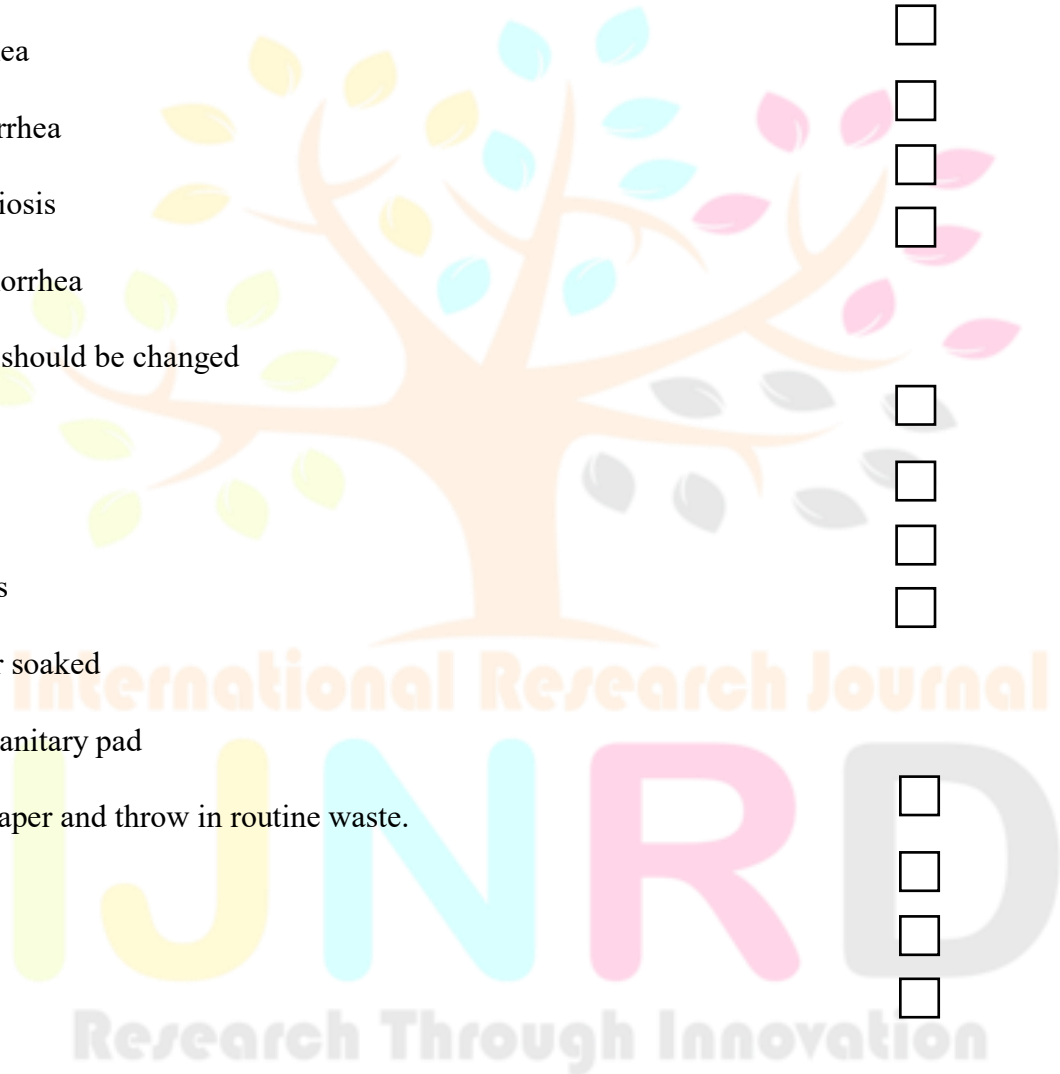
- a) 4-6 hours
- b) 6-8 hours
- c) 6-12 hours
- d) Whenever soaked

23) Disposal of sanitary pad

- a) Wrap in paper and throw in routine waste.
- b) Burying
- c) Flushing
- d) Others

24) The used menstruation clothes should be washed

- a) under running water
- b) With soap and water only
- c) With soap and water by adding antiseptic lotion.
- d) With hot water



- 25) The washed menstruation clothes should be dried
- a) under sunlight
 - b) inside the bathroom
 - c) in the room
 - d) under warmer

- 26) Type of undergarments better to wear during menstruation is
- a) Cotton
 - b) Polyester
 - c) Synthetic
 - d) Wool

- 27) The food must be consumed during menstrual days
- a) Dates
 - b) Fruits
 - c) Vegetables
 - d) All of the above

- 28) The most common Reproductive tract infection is
- a) Chlamydia
 - b) Malaria
 - (c) Urinary tract infections
 - d) None of the above

- 29) Common signs and symptoms of reproductive tract infection (RTI) is
- a) Chest pain
 - b) Breathing difficulty.
 - c) Burning and itching sensation while urinating
 - d) Weakness.



30) Prevention of transmission of reproductive tract infection (RTI) is possible by

- a) Use toilet papers while using public washrooms.
- b) Proper hygienic practice.
- c) Regular bathing
- d) All of the above

ANSWER KEY

- 1) C
- 2) C
- 3) C
- 4) D
- 5) D
- 6) A
- 7) A
- 8) D
- 9) D
- 10) B
- 11) A
- 12) B
- 13) B
- 14) B
- 15) C
- 16) A
- 17) D
- 18) D
- 19) D
- 20) C
- 21) B
- 22) A
- 23) A
- 24) C
- 25) A
- 26) A
- 27) D
- 28) A
- 29) C
- 30) D



APPENDIX M




Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
1.	1 min			<p>INTRODUCTION</p> <p>A healthy individual is a person with overall physical and mental wellbeing. Reproductive health refers to the personal hygiene and proper caring of the reproductive organs.³⁷ Adolescence is the stage of growth and sexual maturity. Thus, it is essential to practice good hygiene habits at this stage itself. For being healthy, one has to keep hygiene at a personal level (personal hygiene) as well as at the community level (social hygiene).³⁸</p> <p>According to WHO</p> <ul style="list-style-type: none"> *Reproductive age refers to 15-49years. *Adolescent age refers to 10-19years.³⁷ 	
2	1 min	Define reproductive health.	<p>DEFINITION</p> <p>The World Health Organization(WHO) defined reproductive health as, Reproductive health is the total well-being of behavioural, emotional, physical and social aspects of adolescence.³⁹</p>	The teacher defines reproductive health by using power point.	What is reproductive health?

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
3	4 min	Explain the female reproductive system.	<p>FEMALE REPRODUCTIVE SYSTEM</p> <p>The female reproductive system is made up of internal and external sex organs that function in the reproduction of new offsprings.</p> <p>Female reproductive system is divided into</p> <ol style="list-style-type: none"> a. External reproductive organs b. Internal reproductive organs⁴⁰ <p>EXTERNAL REPRODUCTIVE ORGANS</p> <p>External reproductive organs include mons pubis, labia majora and minora, clitoris, vaginal opening and perineum. The female external genital organs are collectively known as vulva.</p> <p>MONS PUBIS</p> <p>It is rounded fatty elevation, situated anterior to pubis symphysis.</p> <p>LABIA MAJORA</p> <p>They are two symmetrical folds of skin, which protect the urethral and vaginal openings, that open into vestibule of vagina.</p> <p>LABIA MINORA</p> <p>They are thin delicate folds of fat-free, hairless skin, which are located between labia majora.</p> <p>CLITORIS</p>	The teacher explains female reproductive system by using power point.	What is female reproductive system?

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<p>It is a small and very sensitive part and it is situated where the labia minora starts.</p> <p>VAGINAL OPENING</p> <p>It is the space between labia minora.</p> <p>PERINEUM</p> <p>It is a space between vagina and anal opening.⁴⁰</p> <p>INTERNAL REPRODUCTIVE ORGANS</p> <p>The internal genitalia is the structures within the true pelvis including vagina ,cervix uterus , fallopian tubes and ovaries.</p> <p>VAGINA</p> <p>It is a fibromuscular canal, forming the interior portion of the female genital tract and birth canal.</p> <p>Function:</p> <ul style="list-style-type: none"> *It allows drainage of menstrual fluids and other secretions. *Provides a passageway for infants birth. <p>UTERUS</p> <p>The uterus is a thick walled, pear- shaped, hollow muscular organ, situated in pelvic cavity, with the urinary bladder in front and rectum in behind.</p> <p>Function:</p> <p>The uterus plays a significant role in menstruation, implantation, gestation and labor.</p>		

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<p>FALLOPIAN TUBES</p> <p>The uterine tubes are long, tortuous tubes, extending laterally from the cornua of the uterus. Each tube is 10-12cm long.</p> <p>Function:</p> <p>The main function of the fallopian tube is to collect the mature ovum from ovaries and provide passage to the fertilized ovum to reach the uterus for implantation.</p> <p>OVARIES</p> <p>They are female gonads. They are two in number, situated one on each side of the uterus in a fossa behind the broad ligament.</p> <p>Functions:</p> <ul style="list-style-type: none"> •ovaries play a critical role in both menstruation and conception⁴⁰. •They produce eggs or ovum for fertilization and they make the hormones estrogen and progesterone.⁴¹ 		
4	2 min	Explain menstruation and normal menstrual cycle.	<p>MENSTRUATION</p> <p>Menstruation is the monthly elimination through a bloody vaginal discharge of a portion of the lining of the uterus that has been prepared to protect and nurture a fertilized egg in the event of pregnancy.⁴²</p> <p>NORMAL MENSTRUAL CYCLE</p> <p>The menstrual cycle is the time from the first day of women's period to the day before next period .The menstruation usually</p>	The teacher explains menstruation and normal menstrual cycle by using power point and video clip.	What is menstruation and normal menstrual cycle?

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<p>starts at the age of 10-15 yrs. This period is known as menarche. The length of menstrual cycle varies from women to women, but usually occurs once in every 28 days. A typical cycle lasts between 24 and 38 days. The average day of menstruation is 5-8 days. Hormonal changes ,stress, medications cause irregular periods .In an average 28-day menstrual cycle, ovulation typically occurs about 14 days before the start of the next menstrual period .Ovulation is the release of an egg from an ovary. Some people may feel pain in their lower abdomen at this time and a person’s discharge may change in colour and consistency. However, each person’s cycle length may be different, and the time between ovulation and the start of the next menstrual period may vary.⁴²</p>		
5	3 min	Enumerate the tips to maintain menstrual hygiene.	<p>MENSTRUAL HYGIENE</p> <p>It is a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary for the duration of a menstrual period.⁴³</p> <p>- WHO</p> <p>IMPORTANCE OF MENSTRUAL HYGIENE</p> <p>Poor menstrual hygiene can pose serious health risks like reproductive and urinary tract infections .Poor menstrual hygiene cause infertility and birth complications. Neglecting to wash hands after changing menstrual products can spread</p>	The teacher enumerate the tips to maintain menstrual hygiene by using power point.	What are the tips to maintain menstrual hygiene?

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<p>infections such as hepatitis B and thrush.⁴³</p> <p>TIPS FOR MAINTAINING MENSTRUAL HYGIENE</p> <p>Personal hygiene:</p> <ul style="list-style-type: none"> • Take daily baths at least twice a day. • Change under garments when necessary. • Use only cotton under garments. • The inner thighs and labial folds should be cleaned properly in squatting position. • Never use any kind of deodorants, perfume or talcum powder directly on the vagina and the surrounding areas. <p>Perineal hygiene:</p> <ul style="list-style-type: none"> • Perineal area should be washed from front to back to prevent spread of infection • After urination, defecation and after changing pads one should always wash hand properly with soap and water. <p>Use and disposal of sanitary napkins:</p> <ul style="list-style-type: none"> • Use sanitary napkins. • If not possible ,use clean cloth. • If using cloth, wash it with antiseptic lotion and dry them in sunlight. 		

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<ul style="list-style-type: none"> • The napkins should be changed every 4-6 hours . • If heavy bleeding is there, the napkins should be changed every 2-3 hours. • After using napkin should be wrapped and disposed it in the bin.⁴³ <p>MENSTRUAL HYGIENE KIT</p> <p>It includes:</p> <ul style="list-style-type: none"> • Menstrual pad / Menstrual cup • Bath soap /sanitizer • Multiple pairs of underwear • A flashlight • Plastic covers and news paper • Toilet papers/ tissue paper • It should be carried during travelling ,functions ,sports ,college and school competitions, especially during menstrual date.⁴³ 		
6	3 min	Explain menstrual cup and steps to use.	<p>MENSTRUAL CUP</p> <p>Menstrual cup is a small , flexible funnel shaped cup made of rubber or silicon that you insert into your vagina to catch and collect period fluid . We can wear menstrual cup for 6-12 hours</p>	The teacher explains menstrual cup and steps to use by using power point and video clip.	What are the steps for using menstrual cup?

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<p>depending on whether or not you have a heavy flow.⁴⁴</p> <p>Advantages of using menstrual cup</p> <ul style="list-style-type: none"> •It is affordable. •It is safer than tampons. •Holds more blood than pads or tampons. •It is eco-friendly.⁴⁴ <p>Disadvantages of using menstrual cup</p> <ul style="list-style-type: none"> •May be hard to insert or remove. •May be tough to find the light fit •May cause an allergic reaction. •May cause vaginal irritation.⁴⁴ <p>Steps to insert menstrual cup</p> <ol style="list-style-type: none"> 1.Wash hands thoroughly. 2.Apply water or water based lubricant to rim of the cup. 3.Tightly fold the menstrual cup in half ,holding it in one hand with rim facing up. 4. Insert the cup, rim up , into vagina. It should sit a few inches below the cervix. 5.Once the cup is in vagina , rotate it. It will stops leaks.⁴⁴ <p>Steps to remove menstrual cup</p> <ol style="list-style-type: none"> 1.Wash hands thoroughly. 2.Place index finger and thumb into vagina. Pull the stem of the cup gently until reach the base. 3.Pinch the base to release the seal and pull down to remove the 		

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<p>cup</p> <p>4.Once it's out , empty the cup into the sink or toilet.</p> <p>After care of menstrual cup</p> <ul style="list-style-type: none"> •Reusable menstrual cups should be washed and wiped before being reinserted into vagina. •Reusable menstrual cups are durable and can lasts for 6 months to 10 years with proper care.⁴⁴ 		
6	3 min	Explain the premenstrual syndrome.	<p>PREMENSTRUAL SYNDROME</p> <p>Premenstrual syndrome (PMS) has a wide variety of signs and symptoms, including mood swings, tender breasts, food cravings, fatigue, irritability and depression. It's estimated that as many as 3 of every 4 menstruating women have experienced some form of premenstrual syndrome.</p> <p>Symptoms :</p> <ul style="list-style-type: none"> •Tension or anxiety •Depressed mood •Crying spells •Mood swings and irritability or anger •Appetite changes and food cravings •Trouble falling asleep (insomnia) •Social withdrawal •Poor concentration 	The teacher explains the premenstrual syndrome by using power point.	What is premenstrual syndrome?

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<ul style="list-style-type: none"> •Headache •Fatigue •Weight gain related to fluid retention •Abdominal bloating •Breast tenderness •Acne flare-ups •Constipation or diarrhea⁴⁵ <p>NORMAL DISCOMFORT DURING MENSTRUATION</p> <ul style="list-style-type: none"> • Throbbing or cramping pain in your lower abdomen that can be intense • Pain that starts 1 to 3 days before your period, peaks 24 hours after the onset of your period and subsides in 2 to 3 days • Dull, continuous ache • Pain that radiates to your lower back and thighs <p>Some women also have nausea , loose stools , headache , dizziness.⁴⁵</p>		

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
7	4 min	Explain the irregular menstruation.	<p>IRREGULAR MENSTRUATION</p> <p>Menstrual periods typically last four to seven days and occur roughly every 28 days. Many things cause irregular menstruation such as changes in hormone levels, stress, certain health conditions, medications and more.⁴¹</p> <p>Examples of irregular menstruation</p> <ul style="list-style-type: none"> •Periods that occur fewer than 21 days or more than 35 days apart. •Missing three or more periods in a row. •Menstrual flow (bleeding) that's much heavier or lighter than usual. •Periods that last longer than seven days. •Length of time between cycles varies by more than nine days. For example, one cycle is 28 days, the next is 37 days and the next is 29 days. •Periods that are accompanied by severe pain, cramping, nausea or vomiting. •Soaking through one or more tampons or sanitary pads in an hour. <p>Conditions related to irregular menstruation</p> <ul style="list-style-type: none"> • Amenorrhea: A condition where your periods have 	The teacher explains irregular menstruation by using power point .	What is irregular menstruation?

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<p>stopped completely. The absence of a period for 90 days or more .</p> <ul style="list-style-type: none"> • Oligomenorrhea: A condition where your periods occur infrequently. You may go more than 35 days between periods or have six to eight periods a year. • Dysmenorrhea: A medical term for painful periods and severe menstrual cramps. Some discomfort during your cycle is normal. • Endometriosis: Endometriosis occurs when endometrial tissue grows outside of your uterus. The tissue often attaches itself to your ovaries or fallopian tubes. Endometriosis may cause abnormal bleeding, cramps or severe pain before and during your period. • Polycystic ovary syndrome: In polycystic ovary syndrome (PCOS), your ovaries make large amounts of androgens, which are a type of hormone. This hormone prevents or delays ovulation, causing irregular periods. People with PCOS may stop menstruating completely.⁴¹ 		
8	2 min	List down the diet followed during menstrual	<p>DIET SHOULD BE INCLUDE DURING MENSTRUAL PERIOD</p> <ul style="list-style-type: none"> •Food rich in omega 3 fatty acid. Eg: Salmon ,tuna 	The teacher list down the diet followed during menstrual period by using power point.	What are the diet followed during menstrual period?

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
		period.	<ul style="list-style-type: none"> •Fruits -Water rich fruits: watermelon , muskmelon , cucumber , strawberries - Sweet fruits : apples , grapes - Citrus fruits : oranges , lemons, grapes - Gut friendly fruits : banana •Vegetables : Green leafy vegetables , tomatoes ,broccoli •Nuts , beans and lentils •Drink plenty of water -2.7 litres / 9-10 glasses •Yogurt FOODS TO BE AVOIDED •Food containing caffeine ,chocolate, tea ,coffee. •Fatty and fried foods. •Salty and sour foods containing amount of sodium, Eg:pickle ,canned food, chips etc. •Diary products. Eg: milk, cheese,butter milk. •Red meat. 		

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
9	4 min	Explain reproductive tract infections and their preventive measures.	<p>REPRODUCTIVE TRACT INFECTION</p> <p>DEFINITION</p> <p>Reproductive tract infections are infections of the genital tract. They affect both women and men. Some RTIs (such as syphilis and gonorrhoea) are sexually transmitted, but many are not. Reproductive tract infections are endogenous infections, iatrogenic infections and the more commonly known sexually transmitted infections. Each has its own specific causes and symptoms, caused by a bacterium, virus, fungus or other organism.⁴²</p> <p>Types</p> <p>According to the WHO guidelines for RTI care for reproductive health, RTIs can be classified into three categories:</p> <p>(1)sexually transmitted infections (STIs), which are caused by organisms acquired during sexual contact;</p> <p>(2)endogenous infections, which are caused by pathogens usually present within the reproductive system.chlamydia, gonorrhoea, syphilis and trichomoniasis, Vaginitis, PID.⁴²</p> <p>Chlamydia</p> <p>Common, sexually transmitted infection (STI) that is caused by the bacteria chlamydia trachomatis. Chlamydia affects people of all ages but is most common in young women.</p> <p>Gonorrhoea</p>	The teacher explains the reproductive tract infections and their preventive measures by using power point.	What are the preventive measures of reproductive tract infections?

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<p>Sexually transmitted disease. In women it is characterized by burning pain while passing urine and purulent discharge from the cervix and urethra.⁴²</p> <p>Syphilis</p> <p>In early stages there may be an ulcer on the genitals which may be visible if it is on the external genitals, but will not be seen if it is on the cervix.⁴²</p> <p>Trichomoniasis</p> <p>Sexually transmitted infection caused by a parasite. Trichomoniasis is among the most common sexually transmitted infections. Risk factors include multiple sexual partners and having unprotected sex.</p> <p>Vaginitis</p> <p>Vaginitis refers to inflammation of vagina. These conditions can result from a vaginal infection caused by organisms such as bacteria, yeast or viruses. In some cases vaginitis results from organisms that are passed between sexual partner.⁴⁶</p> <p>Pelvic inflammatory disease</p> <p>Some of the most serious consequences of RTIs in women occur when an infection of the lower genital tract (cervix or vagina) or outside organism reach the upper genital tract (uterus, fallopian tubes, ovaries and surrounding structures). Infection may become generalized and life-threatening</p>		

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<p>and resulting damage and scarring may cause infertility, chronic pelvic pain and increased risk of ectopic pregnancy.</p> <p>SIGNS AND SYMPTOMS</p> <p>The burden of infections is higher in women because it is mostly asymptomatic or the symptoms are unidentifiable. However, vaginal discharge is the most typical symptom among women. The other signs of reproductive system infections in women are:</p> <ul style="list-style-type: none"> • Genital pain. • Burning and itching sensation while urinating. • Genital sore • Lower abdominal pain. <p>PREVENTION</p> <p>Raise awareness in the community about STIs/RTIs and how they can be prevented—especially among populations who may be at high risk.</p> <p>Promote early use of clinic services to cure STIs/RTIs</p> <ul style="list-style-type: none"> • Always use female hygiene products with well balanced pH level to avoid skin infection. • Use soft dry towels to dry off private area. • Always wipe clean your intimate area from front to back. • Always prefer cotton breathable innerware to avoid yeast 		

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
			<p>infection.</p> <ul style="list-style-type: none"> • Use unscented pads, scented hygiene products can irritate the skin • change your garments daily. • change your sanitary pads every 4-6 hours. As increased wetting may causes bacterial infection. • If using shaving set it must be clean, new, sharp razors and don't share it or use it in another area. • Regular bathing • Proper hygienic practice during mensuration. • Use toilet papers while using public washroom. • Regular hospital checkups. <p>COMPLICATIONS</p> <ul style="list-style-type: none"> •Ectopic pregnancy. •Infertility. •Tubo-ovarian abscess. •Chronic pelvic pain •Decreased urine output (oliguria) 		
10	1min			<p>SUMMARY</p> <p>Reproductive health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.</p>	

S/no:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
				Reproductive health is vital in prevention and control of sexually transmitted diseases such as AIDS , HIV etc	
11	1 min			<p>RECAPITALIZATION</p> <ol style="list-style-type: none"> 1. What is reproductive health? 2. What is female reproductive system? 3. What is menstruation and normal menstrual cycle? 4. What are the tips to maintain menstrual hygiene? 5. What are the steps for using menstrual cup ? 6. What is premenstrual syndrome? 7. What is irregular menstruation? 8. What are the diet followed during menstrual period? 9. What are the preventive measures of reproductive tract infections? 	

Slno:	Time	Specific objectives	Content	Teaching and learning activities/ AV aids	Evaluation
12	1 min			<p>CONCLUSION</p> <p>At the end of the study , the group of students got adequate knowledge regarding reproductive health and they are able to answer the questions . Now the students had more knowledge about female reproductive system , menstruation , and reproductive tract infections.</p>	



APPENDIX N**MASTER DATA SHEET**

Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest compliance	Posttest compliance
1	13	c	c	d	d	d	a	a	b	-	14	26
2	13	c	b	c	d	d	a	a	a	c	17	23
3	14	c	b	b	d	d	b	a	a	c	16	17
4	13	c	b	c	d	d	a	c	a	c	10	23
5	13	c	b	b	c	d	a	a	a	d	11	27
6	13	c	b	b	c	d	a	c	a	c	11	22
Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
7	13	c	c	c	d	d	a	b	a	c	9	28

8	13	c	d	b	c	d	a	a	a	d	13	25
9	13	c	b	b	d	d	a	a	a	d	13	24
10	13	c	b	a	d	d	a	a	a	d	13	19
11	13	c	b	a	d	d	a	a	a	d	13	22
12	14	c	c	c	d	b	a	b	a	d	12	21
13	13	c	b	b	d	b	a	c	a	c	14	27
Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
14	13	c	b	c	d	d	a	a	a	c	14	25
15	13	c	c	c	d	d	a	b	b	-	14	29
16	13	c	c	d	c	d	a	a	b	-	17	28
17	13	c	b	c	d	d	a	a	a	c	16	24
18	14	c	d	d	d	c	a	a	a	c	15	28

19	13	c	d	d	d	d	b	b	a	c	15	16
20	14	c	b	b	c	d	a	b	a	c	17	26
21	13	c	c	d	d	d	a	c	a	d	13	24
Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
22	13	c	b	b	c	d	b	b	a	d	11	27
23	14	c	c	a	a	c	b	b	a	c	11	27
24	14	a	a	b	c	d	d	c	a	c	11	19
25	13	a	c	d	d	a	a	a	a	d	16	24
26	14	c	d	d	d	d	b	a	a	c	16	26
27	14	c	b	b	c	d	b	b	a	c	16	22
28	14	c	b	d	d	b	d	a	a	c	16	22
Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge	Source of information	Pretest Compliance	Posttest Compliance

									regarding reproductive health			
29	14	a	b	b	c	b	d	a	a	c	15	18
30	14	a	b	b	c	d	d	a	a	c	14	26
31	13	c	b	b	d	d	a	c	a	d	14	27
32	14	c	c	d	c	d	a	a	a	d	12	26
33	13	a	b	b	c	b	a	b	a	c	15	24
34	13	c	c	c	c	d	a	a	a	d	13	22
35	14	c	b	b	d	d	d	b	a	d	13	27
Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
36	14	c	d	d	d	c	a	a	a	c	15	28
37	13	c	b	c	d	c	a	b	a	d	12	27

38	13	c	c	d	d	d	a	c	a	d	15	26
39	13	c	b	b	c	d	a	b	a	d	12	29
40	14	c	c	b	d	d	d	a	a	d	15	19
41	14	c	c	c	d	d	d	c	a	d	16	19
42	14	a	d	c	c	b	d	a	a	c	14	24
Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
43	13	c	c	d	c	d	a	a	a	d	17	23
44	13	c	c	c	d	c	b	b	a	c	16	26
45	14	c	a	b	d	d	d	a	a	c	13	19
46	14	c	b	d	d	a	d	a	a	c	15	21
47	14	c	b	b	d	d	d	a	a	d	14	25
48	14	c	c	c	d	d	d	b	a	d	15	28

49	14	c	b	b	d	b	d	a	a	c	15	16
Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
50	13	c	c	c	b	d	c	b	a	d	12	24
51	14	c	b	b	d	d	d	a	a	c	17	21
52	14	c	b	d	b	d	c	a	a	d	14	27
53	14	a	a	a	c	d	a	a	a	c	17	20
54	14	c	d	d	a	d	a	b	a	c	17	26
55	14	c	b	d	d	d	b	a	a	d	17	28
56	14	c	c	d	b	d	c	b	a	d	17	23
Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance

57	14	c	c	c	c	d	b	c	a	c	11	26
58	14	c	b	b	c	d	c	a	a	d	11	27
59	14	c	c	c	c	d	b	c	a	c	17	24
60	14	c	c	c	c	c	b	c	a	c	13	25
61	14	c	b	b	d	d	b	a	a	c	13	22
62	14	c	b	c	d	d	b	c	a	d	18	23
63	13	a	c	d	d	a	a	b	a	d	16	25
Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
64	14	c	c	c	c	d	d	a	a	d	16	24
65	14	c	c	c	a	d	d	a	a	d	15	21
66	14	c	d	d	d	d	d	a	b	-	14	26
67	14	c	b	b	c	d	d	a	a	d	16	20

68	14	c	b	d	c	d	d	b	a	d	14	24
69	14	c	c	d	d	d	c	a	a	d	17	27
70	14	c	b	b	d	d	c	a	a	c	14	19

Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
71	14	c	d	d	d	c	a	a	a	c	16	28
72	14	c	d	d	d	d	d	a	a	c	15	25
73	14	c	b	b	d	d	d	a	a	c	14	23
74	14	c	b	a	d	d	d	b	a	d	14	25
75	14	c	c	a	d	d	b	a	a	d	15	21
76	14	c	c	c	c	d	a	a	a	c	15	20
77	14	c	c	c	d	d	d	a	a	d	14	23

Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
78	14	c	c	b	d	c	d	c	a	c	13	28
79	14	c	b	c	d	d	d	a	a	c	13	24
80	14	c	b	c	d	d	d	a	a	c	14	26
81	13	c	c	c	d	d	b	a	a	c	12	19
82	13	c	b	d	c	d	a	b	a	c	18	27
83	13	c	c	c	b	d	a	a	a	d	13	16
84	13	c	c	b	d	d	a	a	a	d	10	23

Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
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85	13	c	c	b	d	d	a	a	a	d	17	26
86	13	c	b	b	d	d	a	b	a	d	17	25
87	13	c	d	b	d	d	b	a	a	d	18	26
88	13	c	b	c	d	d	a	a	a	d	12	22
89	13	c	b	c	d	d	a	a	a	d	13	22
90	13	c	b	c	d	d	a	a	a	d	13	25
91	14	c	d	b	d	d	b	a	a	d	18	26

Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
92	13	c	d	d	d	d	b	a	a	d	18	26
93	13	c	d	d	c	b	b	a	a	d	18	28
94	13	c	b	c	d	d	a	a	a	d	16	25

95	13	c	b	b	d	d	a	a	a	d	18	29
96	13	a	b	b	c	b	c	a	a	d	13	23
97	13	c	b	b	d	d	a	a	a	d	14	25
98	13	c	b	b	d	d	a	a	a	d	17	24
Sample	Age	Religion	Education of father	Education of mother	Occupation of father	Occupation of mother	Area of residence	Type of family	Previous knowledge regarding reproductive health	Source of information	Pretest Compliance	Posttest Compliance
99	14	c	b	b	d	c	b	a	a	d	9	26
100	13	c	c	d	d	d	a	a	a	d	14	17