

A Study to Assess the Effectiveness of PTP on the Knowledge Regarding Reproductive Health among Adolescent Girls of 13-17 Years in Government Girls' High School, Khordha

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ABSTRACT: *Adolescence is a period of transition from childhood to adulthood, and a period of extreme change, which takes place within the personality of a young girl. The present study is "A Study to Assess the Effectiveness of PTP on the Knowledge Regarding Reproductive Health among Adolescent Girls Of 13-17 Years in Government Girls' High School, Khordha".*

The purpose of the study is to assess the effectiveness of PTP on the knowledge regarding reproductive health among adolescent girls.

The mean percentage score of post-test is 74.36538. There is extremely statistically significant relation in pre and post-test knowledge of reproductive health among adolescent girls. There is no statistical significant between knowledge regarding reproductive health with age as the Chi-square value is 1.56 which is less than tabulated value, knowledge regarding reproductive health with education, mother education are not statistically significant as chi-square is 2.04 and 2.43 which is less than the tabulated value. Knowledge regarding reproductive health with socio economic status is extremely statistically significant as Chi-square value is 60.063 which are more than the tabulated value. The researcher concluded that the knowledge regarding reproductive health was improved after Intervention of PTP.

I. INTRODUCTION

Reproductive health is a vital part of general health and a central feature of human development. Reproductive health is a universal concern, but is of special importance for women particularly during the reproductive years. Although most reproductive health problems arise during the reproductive years, in old age general health continues to reflect earlier reproductive life events¹. Adolescence is a period of transition from childhood to adulthood, and a period of extreme change, which takes place within the personality of a young girl². Adolescents are an important resource of any country. According to the WHO expert committee, adolescence is defined as the period between 10-19yrs, the 2nd decade of life³. Adolescents comprise 20% of the world's total population. Out of 1.2 billion adolescents worldwide, about 85% live in developing countries. In India there are 190 million adolescents comprising 21% of India's total population. Adolescent pregnancies constitute 10-15% of total pregnancies in India. This is largely attributed to early marriage, a culture widely prevalent in the whole of India⁴. Adolescence is an important age for girls around the world. The highest attainable level of health is not only a fundamental human right for all; it is also a social and economic vital. Most of the girls in developing countries are facing many difficulties like school dropout, disparities in sex, child marriage, early pregnancy, HIV, sexual exploitation, coercion and violence⁵. Mittal Kundan and Goel K. Manish, (2010) in their study on "Knowledge regarding reproductive health among urban adolescent girls of Haryana" found that the mean age of menarche was 13.1 years, (80.7%) of girls were known about contraceptive methods, (79.4%) of girls were aware about the menstruation, and (73.9%) of girls were known about the modes of transmission of STD/AIDS⁶. K. Malleshappa, K Shivaram, C. Nandini (2011) "An intervention study on knowledge and attitude about reproductive health among rural adolescent girls in Kuppam mandal" found that 554 students were in the age group of 16-17 years with a mean of 16.68 years, 49.5% of the students were not aware about ovulation. Their knowledge about ovulation improved from 49.5% to 96.1% ($p < 0.001$), and regarding menstruation & menstrual hygiene, improved significantly from 78.3% to 96.4% and from 92.5% to 98.9% respectively after intervention ($p < 0.005$)⁷. Kulkarni V. Meenal and Durge M. P (2011) in their study on "Reproductive health morbidities among adolescent girls in Nagpur, Maharashtra". They found that, (65.18%) girls were having one or more reproductive morbidity, a high prevalence of dysmenorrhoea (53.6%) was reported among adolescent girls and backache was a

second common morbidity. The study was also concluded that, a high prevalence of reproductive morbidities was found among adolescent girls but health care seeking behavior was very low⁸. Biradar S. Shilpa, et al (2012) “A cross-sectional study on prevalence of anaemia among adolescent girls of villages under Vantamuri PHC”. They found that, the prevalence of anaemia was 41.1%, prevalence of anaemia was high in late adolescents (15-19yrs) as compared to that in the early adolescents (10-14yrs). A majority of the girls had mild anaemia and the prevalence of anaemia was noticeably high among the girls who belonged to the low socio-economic status⁹. Padhy K. Gouri, et al (2013) in their study on “Effectiveness of planned teaching programme on reproductive health among adolescent girls of Ankuli, Berhampur” found that knowledge was gained in various aspects after conduction of PTP. Regarding nutrition the average score increased from 39.24% to 88.85%, regarding knowledge of high risk behavior the score increased from 19.44 % to 82.87%, the knowledge on anatomy and physiology of reproduction, AIDS and STD, reproductive health and personal hygiene etc also improved extensively after PTP¹⁰. Pattanaik S, et al (2013) in their study on “Prevalence of anemia among adolescent girls in a rural area of Odisha and its epidemiological correlates” found that the prevalence of anemia among adolescent girls was found to be 78.8%, 75.6% girls were suffering from mild degree of anaemia and 24.4% girls were having moderate degree of anemia. Nobody was suffering from severe anemia¹¹. Gothankar S. Jayashree, et al (2016) in their study on “Knowledge and practices related to reproductive health amongst adolescent girls in pune” found that 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 and 11% girls suffered from some form of reproductive tract infections (RTIs)¹². Dr. Ravi Rama, et al. (2016) in their study on “Prevalence of menstrual problems among adolescent school girls in rural Tamil Nadu” found that, the mean age at menarche was 12.4 years, 87.7% of the girls suffered from a menstrual problem. In general, dysmenorrhea was prevalent in 72.6%, while menorrhagia and irregular menstrual cycles were present among 45.7% and 31.7% of the participants¹³. Kansal S, Singh S, Kumar A. (2016) “A community studies on menstrual hygiene practices among school rural adolescent girls in Varanasi”. The study shown that, (90.78%) of respondents had attained menarche at the time of interview and only (29.4%) of respondents were aware of menstruation before menarche and sisters (55%) played the key role in providing information to them. Only 31% respondents were using sanitary pads during menstruation and also reported that, reproductive tract infection (RTI) was observed more in respondents not maintaining hygienic practices (6.6%) as compared to those maintaining hygiene (2.6%)¹⁴.

II. METHODOLOGY

Research Approach

The present study was conducted by adopting “Quantitative research approach” was used for the study.

Research Design

- ❖ Research design is the overall plan for collecting and analyzing the data including a specification for enhancing internal and external validity of the study.
- ❖ In the present study, Quasi – experimental research design is used to collect proper data about the fact taken as objective of the study.

Setting

Setting is the physical location for conducting research can be natural, partially controlled or highly controlled. The study was conducted in Government Girls’ High School, Khordha.

Variables Under Study

Variables are properties or characteristics or qualities of some events, objects or person that can take on different values and amounts.

In this present study, the variables are as follows:

Dependent Variables

The knowledge of adolescent girls.

Independent Variables

The Planned teaching program on knowledge of reproductive health.

Population

- ❖ Population is a group of member possesses specific attribute that a researcher is interested in studying.
- ❖ The population consists of 13-17years age group of Adolescent girls of Government Girl’s High Schools, Khordha.

Sample

A sample is the subset or a proportion of population that has been selected to present the population's interest.

Sample Size

The present study comprised of 80 adolescent girls who are studying in Government Girls' High Schools, Khordha.

Sampling Technique

- Sampling technique is selection of a group of people, events, behavior or other elements to conduct a study.
- Probability stratified random sampling technique is adopted to get the sample.

Sampling Criteria

In sampling criteria, the research specifies the characteristics of the population under the study by detailing the inclusion and exclusion criteria.

The Following Criteria Are Set For The Selection Of The Sample:**Inclusion Criteria**

1. The adolescent schools girls of age 13-16 years and are studying in Government Girls' High School, Khordha.
2. The adolescent schools girls who are willing to participate in the study.
3. The study is limited to those who can read and write English.
4. The study is limited to the adolescent girls who are present on the day of pretest and post-test.

Exclusion Criteria

1. Adolescent girls who are not present at the time of data collection
2. Adolescent girls who are not willing to participate in the study.

Data Collection

Section – A: - Socio-Demographic data of adolescent girls.

Section –B: - Standardized multiple choice questions for assessment of reproductive health.

Section-C: - Standardized true or false questions assessment of reproductive health.

Data Collection Tool And Technique

- The study is concerned with effectiveness of PTP on the knowledge regarding reproductive health among adolescent girls (13-17 years) of Government girls' high school, khordha.
- So the investigator felt necessity to develop an instrument to conduct the research study.
- A structured questionnaire is developed for the purpose of data collection.

Development Of Data Collection Tool

Data collection tool (structured questionnaire schedule) is formulated by-

- Review of research and non-research literatures.
- Discussion with experts.
- Survey Of Tool Used In Similar Studies.

Content Validity Of Tools

To ensure content validity of tool, it was submitted to five experts of related field for their valuable opinion and suggestion. The two experts were from various specialization in nursing field and three from field of community health nursing department.

Data Collection Procedure

Treece and Treece (1986) that instrument selected in a research should as far as possible as a vehicle that would be the best obtaining data for drawing conclusion, pertinent to the study and add to the body of knowledge in a discipline for the study.

Ethical Consideration

Prior to data collection

- Written permission was obtained from Principal of Government Girls' High School, Khordha.
- Explanation was given regarding purpose of the study.
- Confidentiality and anonymity was ensured.
- Informed consent was obtained from adolescent girls.
- Freedom was given to withdraw from the study.

Plan For Data Analysis

Data analysis is a systematic organization and synthesis of data and the testing of research hypothesis using those

data.Data obtained will be analyzed in terms of objectives and by using both descriptive and inferential statistics.

III. DATA ON SAMPLE CHARACTERISTICS

SECTION-A

Description of study samples according to socio demographic variables by using frequency (f) and percentage (%).

Table. 1. Frequency (f) and percentage (%) distribution of study samples according to Age.
N = 80

AGE IN YEAR	FREQUENCY	PERCENTGE
12-14YRS	50	62.5
15-17YRS	28	35
>18 YRS	2	2.5
TOTAL	80	100

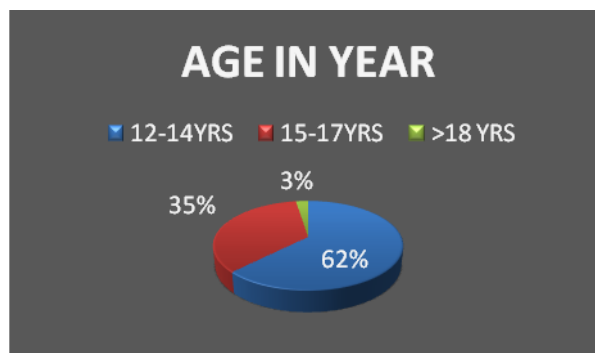


Figure.1. pie diagram showing age wise percentage distributions of study samples. Table no. 1(fig.1) depicts that 62.5% of students belong to age group from 12-14 years, while 35% of students belong to age group from 15-17 years and 3% of students belong to age group from more than 18 years.

Table. 2. Frequency (f) and percentage (%) distribution of study samples according to Height.
N= 80

HEIGHT IN FT.	FREQUENCY	PERCENTAGE
4 - 4.5"	30	37.5
4.5 - 5"	49	61.25
> 5"	1	1.25
TOTAL	80	100

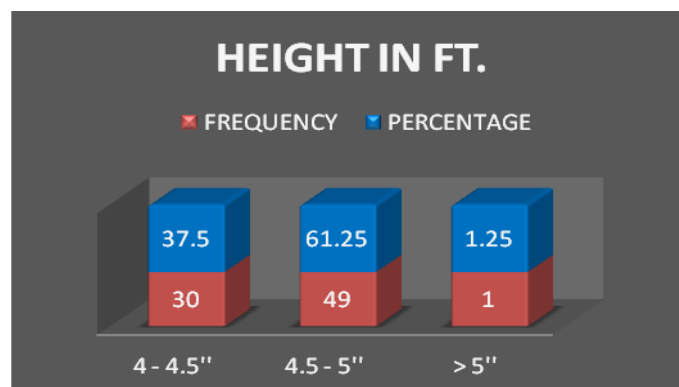


Figure. 2. Column graph showing height wise percentage distributions of study samples

The Column graph reveals (37.5%) of study samples were belong the height from 4 - 4.5", whereas (61.25%) were from 4.5 - 5" and (1.25%) were from more than 5".

Table. 3. Frequency (f) and percentage (%) distribution of study samples according to Weight.

N= 80

WEIGHT IN K.G	FREQUENCY	PERCENTAGE
20 - 25 K.G	39	48.75
25 - 30 K.G	31	38.75
> 30 K.G	10	12.5
TOTAL	80	100

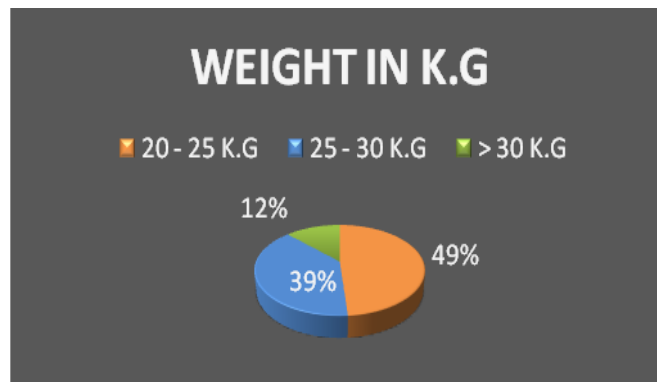


Figure.3. Pie-graph showing weight wise percentage distributions of study samples

The current study depicts that, (49%) of study samples were under 20-25 K.G, (39%) of study samples were under 25-30 K.G and (12%) of study samples were under >30 K.G.

Table. 4. Frequency (f) and percentage (%) distribution of study samples according to Education.

N= 80

EDUCATION	FREQUENCY	PERCENTAGE
CLASS VIITH	25	31.25
CLASS IXTH	25	31.25
CLASS XTH	30	37.5
TOTAL	80	100

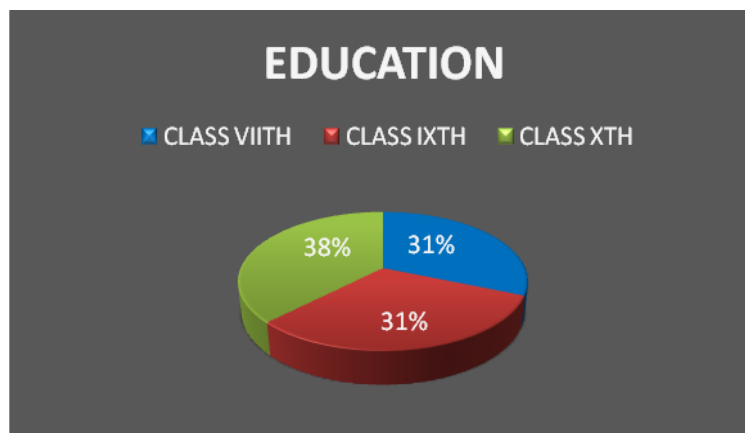


Figure. 4. Pie-graph showing Education wise percentage distributions of study samples.

The current study reveals (31%) of students were belong from class Viiith, (31%) of students were belong from class ixth and (38%) of students were belong from class xth.

Table. 5. Frequency (f) and percentage (%) distribution of study samples according to Religion.

N= 80

RELIGION	FREQUENCY	PERCENTAGE
HINDU	50	62.5
MUSLIM	21	26.25
CHRISTIAN	9	11.25
TOTAL	80	100

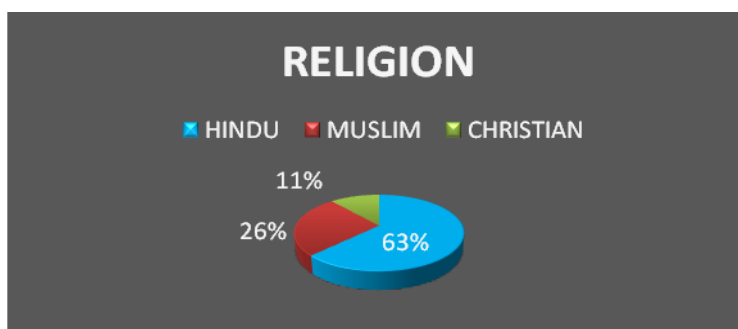


Figure.5. Pie-graph showing Religion wise percentage distributions of study samples.

The present study reveals (63%) of students were belong from Hindu, (26%) of student were belong from Muslim and (11%) of students were belong from Christian.

Table. 6. Frequency (f) and percentage (%) distribution of study samples according to Education of father.

N= 80

EDUCATION OF FATHER	FREQUENCY	PERCENTAGE
ILLITERATE	17	21.25
UPTO XIITH	31	38.75
GRADUATE	32	40
TOTAL	80	100

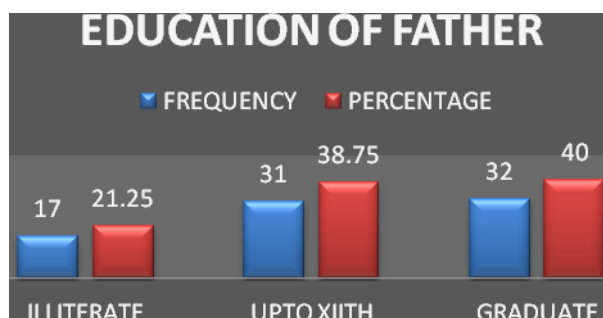


Figure. 6. Column graph showing Education of father wise percentage distributions of study samples.

The present study illustrates (21.25%) of student’s fathers were illiterate, whereas (38.75%) were studied up to xiith and 40% were graduate.

Table. 7. Frequency (f) and percentage (%) distribution of study samples according to Education of mother.

N= 80

EDUCATION OF MOTHER	FREQUENCY	PERCENTAGE
ILLITERATE	35	43.75
UPTO XIITH	38	47.5
GRADUATE	7	8.75
TOTAL	80	100

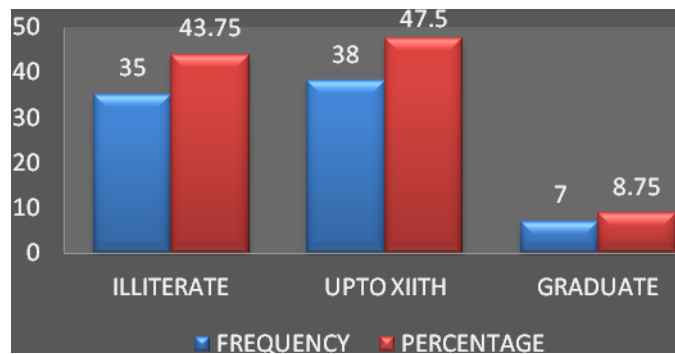


Figure. 7. Column graph showing Education of mother wise percentage distributions of study samples
The present study depicts (43.75%) of mothers were illiterate, whereas (47.5%) of mothers were studied up to xiith and (8.75%) of mothers were graduate.

Table. 8. Frequency (f) and percentage (%) distribution of study samples according socio -economic status of father.

N= 80

SOCIOECONOMIC STATUS OF FATHER	FREQUENCY	PERCENTAGE
30,000 - 50,000	41	51.25
50,000 - 1 LAKH	30	37.5
> 1 LAKH	9	11.25
TOTAL	80	100

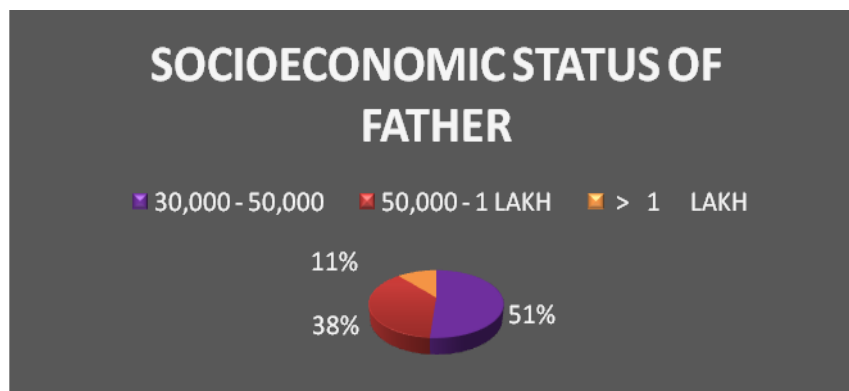


Figure.8. Pie-graph showing socioeconomic status wise percentage distributions of study samples.
The present study reveals (51%) of respondent’s economic status was 30,000 – 50,000, (38%) of respondent’s economic status was 50.000 – 1 lakh and (11%) of respondent’s economic status was more than 1 lakh.

SECTION-B

Table. 9. Frequency (f) and Percentage (%) of pre-test score on knowledge regarding reproductive health.

N=80

KNOWLEDGEREGARDING REPRODUCTIVE HEALTH	FREQUENCY	PERCENTAGE
POOR	35	87.5%
AVERAGE	5	12.5%
GOOD	0	0%
TOTAL	40	100%

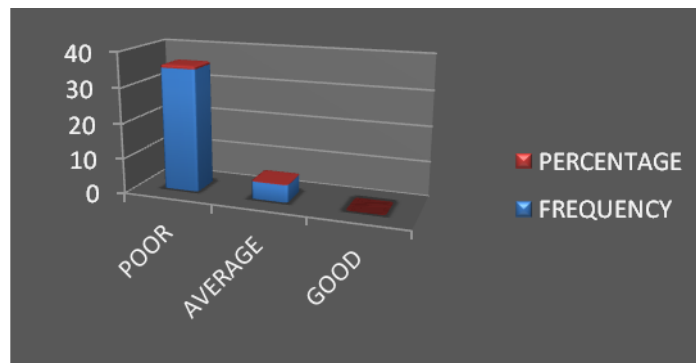


Figure.9. column diagram showing percentage of pre-test knowledge regarding reproductive health Table 9 shows that in pre-test,87.5% of samples were having poor knowledge regarding reproductive health,12.5% of samples were having average knowledge and no one among the sample were having good knowledge regarding reproductive health. Hence in pretest most of the samples were having poor knowledge in Reproductive health and no one were having good knowledge in Reproductive health.

Table. 10. Frequency (f) and percentage (%) distribution of post-test knowledge regarding reproductive health. N=80

KNOWLEDGEREGARDING REPRODUCTIVE HEALTH	FREQUENCY	PERCENTAGE
POOR	0	0
AVERAGE	38	47.5%
GOOD	42	52.5%
TOTAL	80	100%

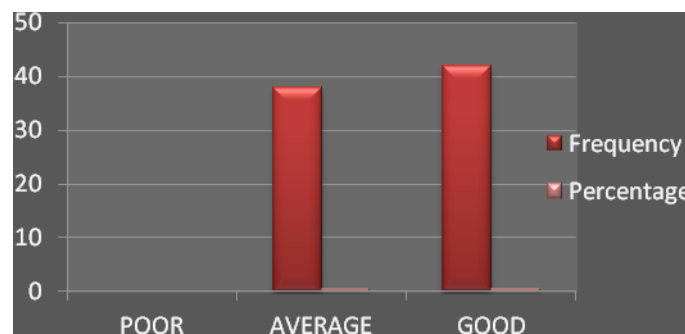


Figure.10. column diagram showing percentage of post-test knowledge regarding reproductive health.

Table.10 shows that in post-test, 52.5%of samples were having good knowledge on reproductive health ,47.5%of samples were having average knowledge and no one among the sample were having poor knowledge.

SECTION-C

Table. 10. The difference between pre-test and post-test of PTP following research hypothesis and null hypothesis are tested

ITEM	MEAN	Df	SD	Z Value(P=0.05)	INFERENCE
Post-test	74.36538	39	2500071	Z=4.468	Extremely significant

The above analysis shows that, the difference between pre-test and post-test of PTP following research hypothesis and null hypothesis are tested.

H_{1,0} – There is a significant difference between the pre and posttest knowledge scores regarding reproductive health among adolescent girls.

From the findings of the Table-4.11, it was found that research hypothesis (H_{1,1}) is accepted and the null hypothesis H_{1,0} is rejected, as there is extremely statistically significant relation in pre and post-test knowledge of reproductive health among adolescent girls.

SECTION-D

Table. 12. Chi-square association of posttest knowledge regarding reproductive health with selected demographic variables. **N=80**

SL NO	DEMOGRAPHIC VARIABLE	CHI SQUARE VALUE TABULATED P=0.05	D.F	CHI SQUARE VALUE (Calculated)	INFERENCE
1	AGE	5.99	2	0.86	NOT SIGNIFICANT
2	EDUCATION	5.99	2	2.04	NOT SIGNIFICANT
8	EDUCATION OF MOTHER	5.99	2	2.43	NOT SIGNIFICANT
9	SOCIOECONOMIC STATUS	5.99	2	60.063	EXTREMELY SIGNIFICANT

To find out and test the significance association of post-test with selected demographic variables following research hypothesis and null hypothesis are tested.

H2.0- There will be no significant association between reproductive health's with selected demographic variables.

H2.1- There will be significant association between reproductive health's with selected demographic variables.

TABLE 4.12 shows that the Chi-square association of post-test knowledge with selected demographic variables. The analysis shows that there is no statistical significant between knowledge regarding reproductive health with age as the Chi-square value is 1.56 which is less than tabulated value, knowledge regarding reproductive health with education, mother education are not statistically significant as chi-square is 2.04 and 2.43 which is less than the tabulated value. Knowledge regarding reproductive health with socio economic status is extremely statistically significant as Chi-square value is 60.063 which are more than the tabulated value.

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