



A COMPARATIVE STUDY TO ASSESS THE KNOWLEDGE OF ADOLESCENT GIRLS REGARDING PROBLEMS OF TEENAGE PREGNANCY IN SELECTED PRE UNIVERSITY COLLEGES OF RURAL AND URBAN AREAS AT TUMAKURU

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DOI: <https://doi.org/10.5281/zenodo.17749229>

How to cite this Article: *Gowri R. V. (2025). A Comparative Study To Assess The Knowledge Of Adolescent Girls Regarding Problems Of Teenage Pregnancy In Selected Pre University Colleges Of Rural And Urban Areas At Tumakuru. World Journal of Pharmaceutical and Life Science, 11(12), 205–XX.

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Article Received on 02/11/2025

Article Revised on 23/11/2025

Article Published on 01/12/2025

ABSTRACT

Background: Teenage pregnancy is coming up as one of the most important social and public health problems all over the world with varying prevalence rates. In recent years incidence is increasing due to early onset of puberty, early sexual activity in girls and relative lack of education on contraceptive method. **Methods:** A Non-Experimental Comparative Research Design was utilised. A Non probability convenient sampling technique was used to collect the data from 120 teenage students by using self-administered questionnaire comprising of 42 items. **Results:** The mean score obtained for overall knowledge in urban adolescent girls as 20.73% which was significantly higher than mean score obtained for overall knowledge in rural adolescent girls 17.93%. It also shows that 80% of rural adolescent girls had inadequate knowledge, 20% had moderately adequate knowledge and no one had adequate knowledge, whereas 3.3% urban adolescent girls had adequate knowledge, 60.0 %had moderately adequate knowledge and 36.7% had inadequate knowledge. **Conclusions:** The study concluded that awareness about the problems of teenage pregnancy through formal education by nursing professional can help the teenagers to over come problems of teenage pregnancy and preserve their health.

KEYWORDS: Knowledge, Teenage pregnancy, Problems.

INTRODUCTION

"The moment a child is born, the mother is also born. She never existed before."

-OSHO

India is one of the youngest countries. More than half of the country's population is under twenty years of age and more than one third is under fifteen years. Adolescents constitute 25%-30% of population. Adolescence is a transitional stage of physical and psychological human development that generally occurs during the period from puberty to legal adulthood The period of adolescence is most closely associated with the teenage years, though its physical, psychological and cultural expressions may begin earlier and end later.^[3]

The end of adolescence and the beginning of adulthood vary by country and by function. Furthermore, even

within a single nation state or culture there can be different ages at which an individual is considered mature enough for society to entrust them with certain privileges and responsibilities. Such milestones include driving a vehicle, having legal sexual relations, serving in the armed forces or on a jury, purchasing and drinking alcohol, voting, entering into contracts, finishing certain levels of education, and marriage. Adolescence is usually accompanied by an increased independence allowed by the parents or legal guardians, including less supervision as compared to preadolescent.

Teenage pregnancy is pregnancy in human females under the age of 20 at the time that the pregnancy ends. A pregnancy can take place after the start of the puberty before first menstrual period, but usually occurs after the

onset of periods. In well-nourished girls, menarche usually takes place around the age of 12 or 13.^[3]

According to a 2006 report, nearly 750,000 teens aged 15-19 become pregnant each year in the United States. At least one study estimates that 90% of these pregnancies are unintended. In 2006, 435,436 infants were born to mothers aged 15-19. Along with obvious individual consequences for teen parents, there are broader effects associated with this issue as well. For example, the Centers for Disease Control and Prevention cites a study that estimates that preventing teenage childbearing could save the United States approximately \$9 billion per year, primarily in health care, foster care, and incarceration costs.^[4]

Teenage pregnancy has so many risk factors, they are - Individual Risk Factors like Drug and alcohol use, Lack of knowledge about sex or contraception, Lack of goals for the future, Low self esteem, Poor school performance, having sex at a young age, Being the victim of sexual abuse, Negative attitude towards using contraception, Ambivalence about having a child. Social Risk Factors like pressure from the peers to have sex, dating at an early age, dating older guys, Friends who are sexually active, Poor peer relationships, Family Risk Factors Poor parental supervision, Limited communication between parents and teen, Negative family interactions, Single-parent families, Significant unresolved conflict between family members, Family history of teenage pregnancies.^[1, 3]

Common causes for teenage pregnancy are; early marriage and gender role, sexuality, use of drug and alcohol, lack of contraception, age discrepancy in relationships, sexual abuse, dating violence, poverty, childhood environment, socio-economic factor, media influence, and education.^[3]

Teen pregnancy and childbearing have adverse academic consequences for teen parents and their children. In addition to a higher drop-out rate for the young mothers and fathers, early parenting limits a young mother's likelihood of a getting the post-secondary education that is increasingly necessary to qualify for a well-paying job. Not surprisingly, limited educational achievement increases the chances that teen parents will live in poverty.^[4]

Teen fathers tend to complete an average of one semester of school less than young men who delay father-hood until at least age 21. The children of teen mothers are also at risk compared to those born to older parents. They are 50 % more likely to repeat a grade, they perform worse on standardized tests, and ultimately, they are less likely to complete high school than if their mothers had delayed childbearing.^[4]

Teen pregnancy can bring physical consequences as well. Physiologically, pregnant teens younger than

seventeen are at an increased risk for poor maternal weight gain and a higher maternal mortality rate. Teen pregnancy is also associated with pregnancy-induced hypertension, anemia, and sexually-transmitted diseases. There are physical risks for the children born to teen mothers as well. These infants have double the risk of low birth weight than do infants born to women aged twenty and older. There is also an increased risk of death within the first 28 days after birth.^[4]

Moreover, the children of teenage mothers are more likely to have lower cognitive attainment and proficiency scores when entering kindergarten; exhibit behavioral problems; have chronic medical conditions; rely more heavily on publicly-provided healthcare; and drop out of high school. Finally, children of teen parents are more likely to give birth as teenagers themselves. One study estimates that at least one-third of teen parents are themselves children of a teen pregnancy.^[2, 4]

The consequences of teenage pregnancy are of particular concern in Mississippi. In the year 2000, the last year for which there is census data, Mississippi was among the five states with the highest teen birth rates, particularly among non-Hispanic white teenagers. A 2006 study found that Mississippi has the third-highest pregnancy rate⁷ of teens aged 15-19 out of all fifty states.^[4]

The study also found that pregnant teens in Mississippi had the highest birth rate in the country. In terms of monetary loss for the state, the National Campaign to Prevent Teen Pregnancy estimates that childbearing teens cost Mississippi taxpayers at least \$135 million in 2004 – this number primarily includes costs associated with increased public health care, child welfare, incarceration, and decreased earnings and spending.^[4]

While teen pregnancy affects all demographics, certain populations are at greater risk. A 2009 Vital Statistics Report shows that Hispanic and African-American teenage women have the highest birth rates, respectively. Various studies also suggest that teen pregnancy is “influenced by educational and economic opportunities.” Teens that have children are likely to encounter a number of problems that their peers avoid. They are more likely to be and remain single parents. Compared to their counterparts who wait until ages twenty or twenty-one to have children, teen mothers are more likely to drop out of high school.^[4]

Across the country, there have been a variety of efforts to address the issue of teen Pregnancy, from abstinence only sexual education to programs that address sex education in a more comprehensive way. By all accounts, the national rate of teen pregnancy decreased between 19 91 and until the early 2000s.²³ In 2006, however, the rate of teen pregnancy again began to increase.²⁴ Indeed, in Mississippi in particular, there were almost 1,000 more births to teens in 2006 as compared to 2005.²⁵ One study points to decreased

contraceptive use among American teenagers as the culprit, while noting that from 1998 through 2008, sex education has focused on abstinence-only education as the means of preventing teen pregnancy.^[4]

In addition, an article from CNN cites community officials who surmise that a “cutback in community resources for youth over the last eight years could help explain the increase in teen pregnancies.” Federal health experts say there is not enough data to form a conclusive answer about why the rates have risen. Whatever the cause for high rates in recent years; a comprehensive and immediate response is still needed.^[4]

METHODS

Research approach

A Non-Experimental Descriptive research approach was considered the best to assess the knowledge of pre university college adolescent girls regarding problems of teenage pregnancy.

Research design

A comparative study design is used as a research design in this study as there is a need of describing and comparing the knowledge of adolescent girls of pre university colleges regarding the problems of teenage pregnancy in rural and urban areas.

Variables under study

Two types of variables are identified in this study. They are Research variables and demographic.

Research variables

In this study, research variables refer to the knowledge of adolescent girls of selected rural and urban Pre university colleges regarding the problems of teenage pregnancy.

RESULTS

Section I: Assessment of knowledge of adolescent girls regarding problems of teenage pregnancy.

Table 1: Assessment of knowledge of adolescent girls regarding problems of teenage pregnancy.

| S no. | Aspects of knowledge regarding problems of teenage pregnancy | Max. Score | Urban | | | | Rural | | | |
|-------|--|------------|-------|------|------|--------|-------|------|-------|--------|
| | | | Range | Mean | SD | Mean % | Range | Mean | SD | Mean % |
| 1 | General information | 7 | 2-5 | 3.63 | 0.92 | 51.8 | 2-4 | 2.90 | .712 | 41.4 |
| 2 | Causes, risk factors and symptoms | 11 | 3-8 | 5.40 | 1.73 | 49.1 | 3-6 | 4.17 | .950 | 37.9 |
| 3 | Problems of teenage pregnancy | 20 | 3-18 | 9.93 | 3.72 | 49.6 | 3-14 | 9.30 | 2.480 | 46.5 |
| 4 | Preventive aspects | 4 | 0-4 | 1.77 | 1.04 | 44.3 | 0-4 | 1.57 | 1.006 | 39.3 |

Table 1 shows that maximum mean knowledge score obtained by the urban adolescent girls are found in the area of general aspects of problems of teenage pregnancy (3.63) with standard deviation of 0.92 followed by Causes, risk factors and symptoms of teenage pregnancy (5.40) with standard deviation of 1.730, problems of teenage pregnancy (9.93) with standard deviation of 3.72, Preventive aspects of teenage pregnancy (1.17) with standard deviation of 1.04, It also

Demographic variables

Independent variables in this study are Age, Place of residence, Religion, Class of study, educational status of mother, Occupation of mother, Monthly income of family, Type of Family, Number of children, History of teenage pregnancy in the family, Mode of recreation, Source of information.

Setting of the study

Study is conducted in selected rural and urban pre university colleges at Tumakuru district. Feasibility of conducting the study, economy of time and money, and availability of subjects is taken into consideration in selecting rural and urban pre university colleges for the study.

Population

The population for the present study is rural and urban adolescent girls of selected pre university colleges of Tumakuru District.

Sample size

The sample for the present study will be comprised of 60 rural and urban adolescent girls of selected pre university colleges of Tumakuru District.

Sampling technique

The sampling technique for the present study is Non probability convenient sampling technique.

shows that maximum mean knowledge score obtained by the rural adolescent girls are found in the area of general aspects of problems of teenage pregnancy (2.90) with standard deviation of 0.712 followed by Causes, risk factors and symptoms of teenage pregnancy (4.17) with standard deviation of 0.950, Problems of teenage pregnancy (9.30) with standard deviation of 2.480, Preventive aspects of teenage pregnancy (1.57) with standard deviation of 1.006, pregnancy (37.9%).

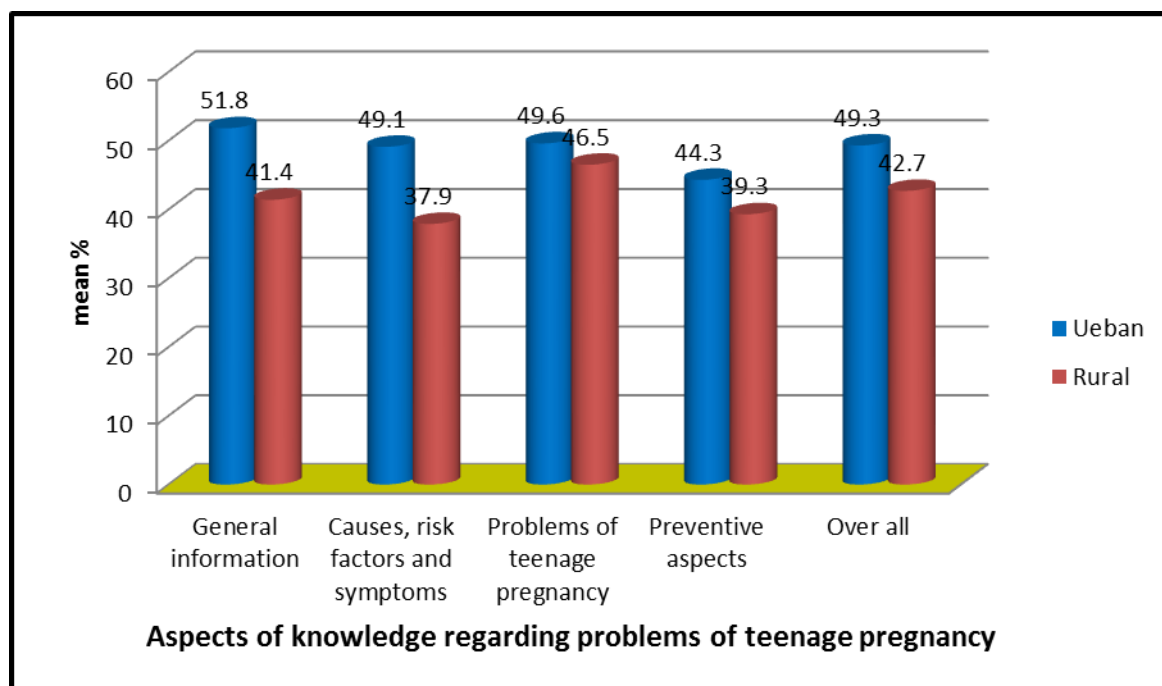


Figure 1: Assessment of aspects wise knowledge of adolescent girls regarding the problems of teenage pregnancy.

Table 2: Overall mean standard deviation and mean percentage of knowledge of adolescent girls regarding the problems of teenage pregnancy.

| Aspects of knowledge regarding problems of teenage pregnancy | Max. Score | Urban N =30 | | | | Rural N=30 | | | |
|--|------------|----------------|-------|------|--------|---------------|-------|-------|--------|
| | | Range | Mean | SD | Mean % | Range | Mean | SD | Mean % |
| Over all | 42 | 9-32 | 20.73 | 4.94 | 49.3 | 8-28 | 17.93 | 4.076 | 42.7 |

Table 2 shows that highest overall mean score is collected from urban adolescent girls that is 20.73 with standard deviation of 4.94 and mean percentage score is

49.3%. While from rural adolescent girls overall mean score is 17.93 with standard deviation of 4.076 and mean percentage score is 42.7%.

Table 3: Distribution of adolescent girls according to the pretest level of knowledge regarding problems of teenage pregnancy over urban and rural area.

| Sno | Pretest level of knowledge | Urban | | Rural | |
|-----|-----------------------------|----------|------|----------|------|
| | | No. (30) | % | No. (30) | % |
| 1 | Inadequate knowledge (<50%) | 11 | 36.7 | 24 | 80.0 |
| 2 | Moderate knowledge (50-75%) | 18 | 60.0 | 6 | 20.0 |
| 3 | Adequate knowledge (>75%) | 1 | 3.3 | 0 | 0 |
| 4 | Total | 30 | 100 | 30 | 100 |

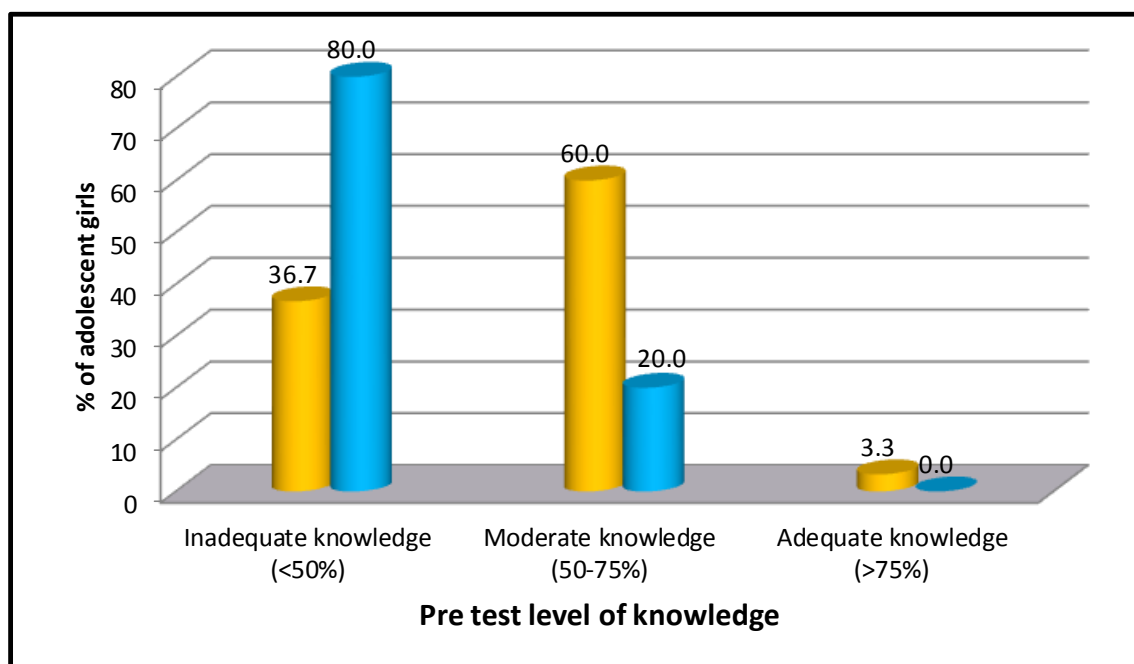


Figure 2: Distribution of adolescent girls according to level of knowledge.

Table 3 and figure 2 represent the level of knowledge among rural and urban adolescent girls of P U College. 80% of rural adolescent girls had inadequate knowledge, 20% had moderately adequate knowledge and no one

had adequate knowledge, whereas 3.3% urban adolescent girls had adequate knowledge, 60% had moderately adequate knowledge and 36.7% had inadequate knowledge.

Section II: Comparison of knowledge between rural and urban adolescent girls of PU colleges

Table 4: Aspects wise comparison of knowledge between rural and urban adolescent girls of PU colleges.

| Sno | Aspects of knowledge regarding problems of teenage pregnancy | Max. Score | Urban | | Rural | | Unpaired t-value | p-value |
|-----|--|------------|-------|------|-------|-------|--------------------|---------|
| | | | Mean | SD | Mean | SD | | |
| 1 | General information | 7 | 3.63 | 0.92 | 2.90 | .712 | 3.43* | p<0.05 |
| 2 | Causes, risk factors and symptoms | 11 | 5.40 | 1.73 | 4.17 | .950 | 3.41* | p<0.05 |
| 3 | Problems of teenage pregnancy | 20 | 9.93 | 3.72 | 9.30 | 2.480 | 0.77 ^{NS} | p>0.05 |
| 4 | Preventive aspects | 4 | 1.77 | 1.04 | 1.57 | 1.006 | 0.75 ^{NS} | p>0.05 |
| 5 | Over all | 42 | 20.73 | 4.94 | 17.93 | 4.076 | 2.39* | p<0.05 |

Note: *- denotes significant at 0.05 level for 28 df (ie, p<0.05). NS- Not significant at 0.05 level for 28 df (p>0.05).

Table 5: Overall comparison of knowledge between rural and urban adolescent girls.

| S no | Aspects of knowledge regarding problems of teenage pregnancy | Max. Score | Urban | | Rural | | Unpaired t-value | p-value |
|------|--|------------|-------|------|-------|-------|------------------|---------|
| | | | Mean | SD | Mean | SD | | |
| 1 | Over all | 42 | 20.73 | 4.94 | 17.93 | 4.076 | 2.39* | p<0.05 |

To find the significant difference in level of knowledge among urban and rural adolescent girls of PU colleges, following research hypothesis was stated.

H₁: There will be a significant difference in the knowledge regarding problems of teenage pregnancy between rural and urban adolescent girls. This hypothesis was tested using independent group 't' test.

From the above table 10 the overall mean knowledge score of urban adolescent girls of PU colleges was 20.73

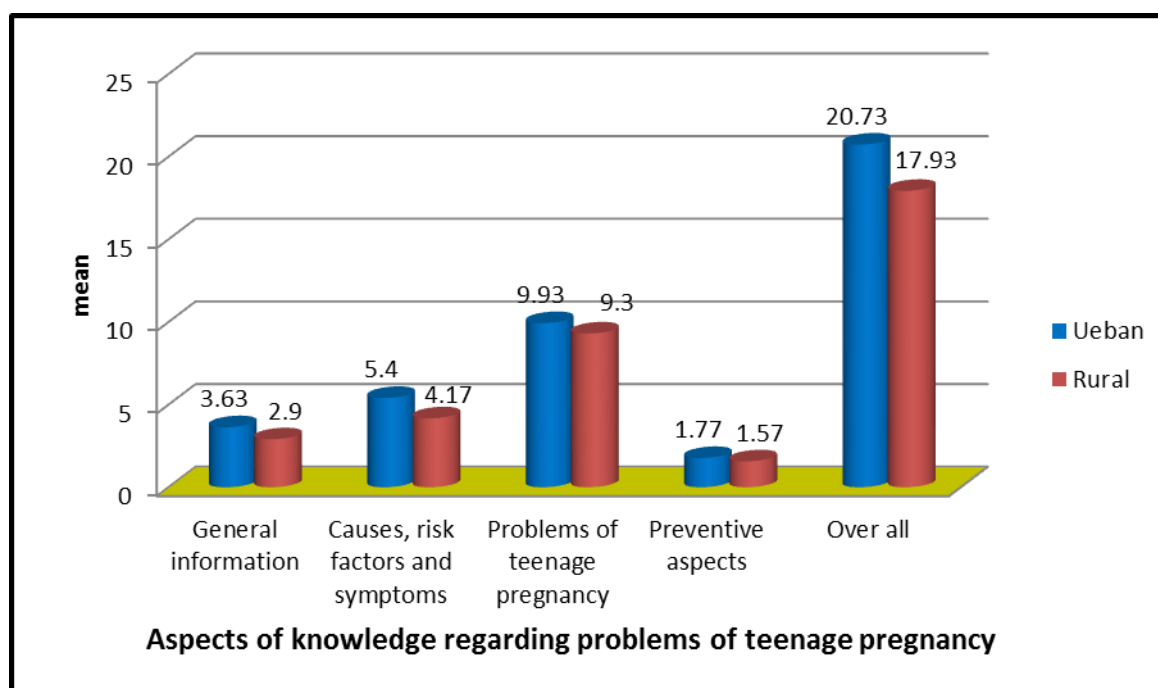
with standard deviation of 4.94 and rural adolescent girls of PU colleges was 17.93 and standard deviation 4.076 with the obtained 't' value +2.39 are greater than the table value at 0.05 level of significance. Therefore, "t" value found to be significant. It shows that there is a significant difference between urban and rural knowledge score regarding the problems of teenage pregnancy. Therefore, the research hypothesis (H₁) was accepted.

Table 6: Comparison of mean percentage of knowledge between rural and urban adolescent girls.

| S no | Aspects of knowledge regarding problems of teenage pregnancy | Urban | Rural | Difference |
|------|--|-------|-------|------------|
| 1 | General information | 51.8 | 41.4 | 10.4 |
| 2 | Causes, risk factors and symptoms | 49.1 | 37.9 | 11.2 |
| 3 | Problems of teenage pregnancy | 49.6 | 46.5 | 3.1 |
| 4 | Preventive aspects | 44.3 | 39.3 | 5 |
| | overall | 194.8 | 165.1 | 29.7 |

Table 6 and shows that highest mean percentage difference of knowledge between rural and urban adolescent girls have seen in the area of causes, risk factors and symptoms that is 11.2% followed by a mean percentage difference of 10.4% in general information,

5% in preventive aspects, 3.1 %in problems of teenage pregnancy. The overall mean percentage difference of knowledge between rural and urban adolescents is 29.7%.

**Figure 3 Comparison of mean of knowledge between rural and urban adolescent girls.**

Section III: Association between the level of knowledge and selected socio-demographic variables

This section brings out the association between the level of knowledge with selected socio-demographic variables.

Testing of hypothesis

To test association between the knowledge with selected socio-demographic variables following hypothesis was formulated.

H₂: There will be a significant association between the knowledge regarding Problems of teenage pregnancy of rural and urban adolescent girls with their selected Demographic variables.

Table 7: Association between the selected demographic variable and the level of knowledge (urban group).**Table 7A: Association between the knowledge with age, religion, class of studying, & educational status of the mother.**

| mother. | | | | | | | | | | |
|---------|------------------------------|---------------------|--------------|------|--------------------|------|--------------------|------|------------------|---------|
| Sno | Demographic variables | Categories | Urban (n=30) | | Level of knowledge | | | | χ^2 - value | p-value |
| | | | | | Inadequate | | Moderate &Adequate | | | |
| | | | No. | % | No. | % | No. | % | | |
| 1 | Age in years | Below 15 yrs | 1 | 3.3 | 0 | 0 | 1 | 5.3 | 5.87, df=2, S | P<0.05 |
| | | 15-17 yrs | 16 | 53.3 | 9 | 81.8 | 7 | 36.8 | | |
| | | 17-19 yrs | 13 | 43.3 | 2 | 18.2 | 11 | 57.9 | | |
| 2 | Religion | Hindu | 26 | 86.7 | 11 | 100 | 15 | 78.9 | 2.67, df=2, NS | p>0.05 |
| | | Christian | 1 | 3.3 | 0 | 0 | 1 | 5.3 | | |
| | | Muslim | 3 | 10.0 | 0 | 0 | 3 | 15.8 | | |
| | | Others | - | - | - | - | - | - | | |
| 3 | Class studying | I PUC | 29 | 96.7 | 11 | 100 | 18 | 94.7 | 0.599, df=1, NS | p>0.05 |
| | | II PUC | 1 | 3.3 | 0 | 0 | 1 | 5.3 | | |
| 4 | Educational status of mother | No formal education | 5 | 16.7 | 3 | 27.3 | 2 | 10.5 | 6.62, df=3, NS | p>0.05 |
| | | Primary school | 6 | 20.0 | 0 | 0 | 6 | 31.6 | | |
| | | High school | 11 | 36.7 | 6 | 54.5 | 5 | 26.3 | | |
| | | PUC | 8 | 26.7 | 2 | 18.2 | 6 | 31.6 | | |
| | | Graduate | - | - | - | - | - | - | | |
| | | Post graduate | - | - | - | - | - | - | | |

Note: S-Significant at 5% level (ie., p<0.05), NS-Not significant at 5% level (ie., p>0.05).

Table 7B: Association between the level of knowledge with their occupation of mother, monthly income of family, type of family, number of children (urban group).

| Sno | Demographic variables | Categories | Urban (n=30) | | Level of knowledge | | | | χ^2 - value | p-value |
|-----|----------------------------------|--------------------|--------------|------|--------------------|------|---------------------|------|------------------|---------|
| | | | | | Inadequate | | Moderate & Adequate | | | |
| | | | No. | % | No. | % | No. | % | | |
| 5 | Occupation of mother | Govt. employee | - | - | - | - | - | - | 4.34, df=3, NS | p>0.05 |
| | | Non govt. employee | 3 | 10.0 | 0 | 0 | 3 | 15.8 | | |
| | | Self employed | 3 | 10.0 | 0 | 0 | 3 | 15.8 | | |
| | | House wife | 24 | 80.0 | 11 | 100 | 13 | 68.4 | | |
| 6 | Monthly income | Less than 5000 | 10 | 33.3 | 5 | 45.5 | 5 | 26.3 | 6.31, df=3, NS | p>0.05 |
| | | 5001-10000 | 12 | 40.0 | 6 | 54.5 | 6 | 31.6 | | |
| | | 10001-15000 | 5 | 16.7 | 0 | 0 | 5 | 26.3 | | |
| | | 15001 and above | 3 | 10.0 | 0 | 0 | 3 | 15.8 | | |
| 7 | Type of family | Nuclear family | 27 | 90.0 | 9 | 81.8 | 18 | 94.7 | 1.29, df=1, NS | p>0.05 |
| | | Joint family | 3 | 10.0 | 2 | 18.2 | 1 | 5.3 | | |
| 8 | Number of children in the family | One | 1 | 3.3 | 1 | 9.1 | 0 | 0 | 1.79, df=2, NS | p>0.05 |
| | | Two | 20 | 66.7 | 7 | 63.6 | 13 | 68.4 | | |
| | | Three & above | 9 | 30.0 | 3 | 27.3 | 6 | 31.6 | | |

Note: S-Significant at 5% level (ie., p<0.05), NS-Not significant at 5% level (ie., p>0.05).

Table 7c: Association between the level of knowledge with their history of teenage pregnancy, mode of recreation, information regarding problems of teenage pregnancy & source of information. (urban group).

| Recreation, information regarding problems of teenage pregnancy & source of information: (urban group). | | | | | | | | | | |
|---|--|-----------------------|-----------------|------|--------------------|------|-----------------------|------|--------------------|-------------|
| Sno | Demographic variables | Categories | Urban (n=30) | | Level of knowledge | | | | χ^2 - value | p- value |
| | | | | | Inadequate | | Moderate &Adequate | | | |
| | | | No. | % | No. | % | No. | % | | |
| 9 | History of teenage pregnancy in family | Yes | 29 | 96.7 | 11 | 100 | 18 | 94.7 | 0.599, df=3, NS | p>0.05 |
| | | No | 1 | 3.3 | 0 | 0 | 1 | 5.3 | | |
| 10 | Mode of recreation | Watching TV | 18 | 60.0 | 8 | 72.7 | 10 | 52.6 | 2.24, df=3, NS | p>0.05 |
| | | Chatting with friends | 9 | 30.0 | 3 | 27.3 | 6 | 31.6 | | |
| | | Playing games | 2 | 6.7 | 0 | 0 | 2 | 10.9 | | |

| | | | | | | | | | | |
|----|---|-----------------------------|----|------|---|------|----|------|-----------------|--------|
| | | Reading magazines | 1 | 3.3 | 0 | 0 | 1 | 5.3 | | |
| 11 | Heard information regarding problems of teenage pregnancy | Yes | 21 | 70.0 | 8 | 72.7 | 13 | 68.4 | 0.062, df=1, NS | p>0.05 |
| | | No | 9 | 30.0 | 3 | 27.3 | 6 | 31.6 | | |
| 12 | Source of information (n=21) | Family and friends | 5 | 23.8 | 0 | 0 | 5 | 38.5 | 3.29, df=3, NS | p>0.05 |
| | | Mass media | 14 | 66.7 | 7 | 87.5 | 7 | 53.8 | | |
| | | Health personnel | 1 | 4.7 | 0 | 0 | 1 | 7.7 | | |
| | | Contact with other personal | 1 | 4.7 | 1 | 12.5 | 0 | 0 | | |

Note: S-Significant at 5% level (ie., $p<0.05$), NS-Not significant at 5% level (ie., $p>0.05$).

Table 7A, 7B and 7C shows the χ^2 value computed between the level of knowledge among urban adolescent girls with selected socio-demographic variables. Age ($\chi^2=5.87$) only found to be significant at 0.05 level. Religion ($\chi^2=2.67$), class of studying ($\chi^2=0.599$), Educational status of mother ($\chi^2=6.62$), occupation of mother ($\chi^2=4.43$), monthly income ($\chi^2=6.3$), type of family ($\chi^2=1.29$), number of children ($\chi^2=1.79$), history of teenage pregnancy in the family ($\chi^2=0.599$), mode of recreation ($\chi^2=2.24$), source of information ($\chi^2=3.29$), and were found to be not significant at 0.05 level. Thus,

it can be interpreted that there is significant association between the level of knowledge of urban adolescent girls with their selected socio-demographic variables such as age. There is no significant association between the level of knowledge among urban adolescent girls with religion of urban adolescent girls, class of studying, educational status of mother, history of teenage pregnancy in the family, type of family, number of children, mode of recreation, and source of information of urban adolescent girls. So, the H_2 hypothesis was accepted for age, and rejected for other socio-demographic variables.

Table 8: Association between the selected demographic variable and the level of knowledge (rural group)

Table 8A: Association between the level of knowledge with their age, religion, educational status.

| Sno | Demographic variables | Categories | Rural (n=30) | | Level of knowledge | | | | χ^2 - value | p-value |
|-----|------------------------------|---------------------|--------------|------|--------------------|------|---------------------|------|------------------|---------|
| | | | | | Inadequate | | Moderate & Adequate | | | |
| | | | No. | % | No. | % | No. | % | | |
| 1 | Age in years | Below 15 yrs | - | - | - | - | - | - | 0, df=1, NS | P>0.05 |
| | | 15-17 yrs | 20 | 66.7 | 16 | 66.7 | 4 | 66.7 | | |
| | | 17-19 yrs | 10 | 33.3 | 8 | 33.3 | 2 | 33.3 | | |
| 2 | Religion | Hindu | 27 | 90.0 | 21 | 87.5 | 6 | 100 | 0.83, df=3, NS | p>0.05 |
| | | Christian | 1 | 3.3 | 1 | 4.2 | 0 | 0 | | |
| | | Muslim | 1 | 3.3 | 1 | 4.2 | 0 | 0 | | |
| | | Others | 1 | 3.3 | 1 | 4.2 | 0 | 0 | | |
| 3 | Class studying | I PUC | 11 | 36.7 | 9 | 37.5 | 2 | 33.3 | 0.036, df=1, NS | p>0.05 |
| | | II PUC | 19 | 63.3 | 15 | 62.5 | 4 | 66.7 | | |
| 4 | Educational status of mother | No formal education | 9 | 30.0 | 6 | 25.0 | 3 | 50.0 | 310, df=3, NS | p>0.05 |
| | | Primary school | 6 | 20.0 | 6 | 25.0 | 0 | 0 | | |
| | | High school | 8 | 26.7 | 7 | 29.2 | 1 | 16.7 | | |
| | | PUC | 7 | 23.3 | 5 | 20.8 | 2 | 33.3 | | |
| | | Graduate | - | - | - | - | - | - | | |
| | | Post graduate | - | - | - | - | - | - | | |

Note: S-Significant at 5% level (ie., $p<0.05$), NS-Not significant at 5% level (ie., $p>0.05$).

Table 8b: Association between the level of knowledge with their occupation of mother, monthly income, type of family, number of children in family.

| | | | | | | | | | | |
|---|----------------------|--------------------|----|------|----|------|---|------|----------------|--------|
| 5 | Occupation of mother | Govt. employee | 2 | 6.7 | 2 | 8.3 | 0 | 0 | 1.63, df=2, NS | p>0.05 |
| | | Non govt. employee | 2 | 6.7 | 1 | 4.2 | 1 | 16.7 | | |
| | | Self employed | - | - | - | - | - | - | | |
| | | House wife | 26 | 86.7 | 21 | 87.5 | 5 | 83.3 | | |
| 6 | Monthly income | Less than 5000 | 19 | 63.3 | 15 | 62.5 | 4 | 66.7 | 0.36, df=3, NS | p>0.05 |
| | | 5001-10000 | 4 | 13.3 | 3 | 12.5 | 1 | 16.7 | | |
| | | 10001-15000 | 6 | 20.0 | 5 | 20.8 | 1 | 16.7 | | |
| | | 15001 and above | 1 | 3.3 | 1 | 4.2 | 0 | 0 | | |
| 7 | Type of family | Nuclear family | 20 | 66.7 | 16 | 66.7 | 4 | 66.7 | 0.27, df=1, NS | p>0.05 |
| | | Joint family | 10 | 33.0 | 7 | 29.2 | 2 | 33.3 | | |

| | | | | | | | | | | |
|---|----------------------------------|---------------|----|------|----|------|---|------|----------------|--------|
| | | | | | | | | | NS | |
| 8 | Number of children in the family | One | 3 | 10.0 | 1 | 4.2 | 2 | 33.3 | 5.00, df=2, NS | p>0.05 |
| | | Two | 18 | 60.0 | 16 | 66.7 | 2 | 33.3 | | |
| | | Three & above | 9 | 30.0 | 7 | 29.2 | 2 | 33.3 | | |

Note: S-Significant at 5% level (ie., $p < 0.05$), NS-Not significant at 5% level (ie., $p > 0.05$).

Table 8C: Association between the level of knowledge with history of teenage pregnancy in the family, mode of recreation, Heard information regarding problems of teenage pregnancy and source of information.

| | | | | | | | | | | |
|----|---|-----------------------------|----|------|----|------|---|------|-----------------|--------|
| 9 | History of teenage pregnancy in family | Yes | 4 | 13.3 | 4 | 16.7 | 0 | 0 | 1.15, df=1, NS | p>0.05 |
| | | No | 26 | 86.7 | 20 | 83.3 | 6 | 100 | | |
| 10 | Mode of recreation | Watching TV | 19 | 63.3 | 16 | 66.7 | 3 | 50.0 | 0.66, df=3, NS | p>0.05 |
| | | Chatting with friends | 4 | 13.3 | 3 | 12.5 | 1 | 16.7 | | |
| | | Playing games | 3 | 10.0 | 2 | 12.5 | 1 | 16.7 | | |
| | | Reading magazines | 4 | 13.3 | 3 | 12.5 | 1 | 16.7 | | |
| 11 | Heard information regarding problems of teenage pregnancy | Yes | 9 | 30.0 | 7 | 29.2 | 2 | 33.3 | 0.040, df=1, NS | p>0.05 |
| | | No | 21 | 70.0 | 17 | 70.8 | 4 | 66.7 | | |
| 12 | Source of information (n=21) | Family and friends | 6 | 66.7 | 5 | 71.4 | 1 | 50.0 | 0.587, df=2, NS | p>0.05 |
| | | Mass media | 2 | 22.2 | 1 | 14.3 | 1 | 50.0 | | |
| | | Health personnel | 1 | 11.1 | 1 | 14.3 | 0 | 0 | | |
| | | Contact with other personal | -- | - | - | - | - | - | | |

Note: S-Significant at 5% level (ie., $p < 0.05$), NS-Not significant at 5% level (ie., $p > 0.05$).

Table 8A, 8B and 8C shows the χ^2 value computed between the level of knowledge among rural adolescent girls with selected socio-demographic variables. Age ($\chi^2=0$), religion ($\chi^2=0.83$), educational status of mothers ($\chi^2=3.10$), occupation ($\chi^2=1.63$) monthly income ($\chi^2=0.36$ type of family ($\chi^2=0.27$ number of children ($\chi^2=5.0$), history of teenage pregnancy in family ($\chi^2=1.15$), mode of recreation ($\chi^2=0.66$), source of information ($\chi^2=0.587$) and heard information about problems of teenage pregnancy ($\chi^2=0.040$) were found to be not significant at 0.05 level. Thus, it can be interpreted that there is no significant association between the level of knowledge among rural adolescent girls with age of rural adolescent girls, religion of rural adolescent girls, class of studying, educational status of mother, occupation of mother, monthly income, type of family, number of children, history of teenage pregnancy in family, mode of recreation, source of information. So, the H_2 hypothesis was rejected for all socio-demographic variables in rural adolescent girls.

DISCUSSION

Data shows that 80% of rural adolescent girls had inadequate knowledge, 20% had moderately adequate knowledge and no one had adequate knowledge, whereas 3.3% urban adolescent girls had adequate knowledge, 60.0% had moderately adequate knowledge and 36.7% had inadequate knowledge. The computed χ^2 value between the level of knowledge among urban adolescent girls with selected socio-demographic variables. Age ($\chi^2=5.87$) only found to be significant at 0.05 level. Religion ($\chi^2=2.67$), class of studying ($\chi^2=0.599$), Educational status of mother ($\chi^2=6.62$), occupation of mother ($\chi^2=4.43$), monthly income ($\chi^2=6.3$), type of

family ($\chi^2=1.29$), number of children ($\chi^2=1.79$), history of teenage pregnancy in the family ($\chi^2=0.599$), mode of recreation ($\chi^2=2.24$), source of information ($\chi^2=3.29$), and were found to be not significant at 0.05 level. Thus, it can be interpreted that there is significant association between the level of knowledge of urban adolescent girls with their selected socio-demographic variables such as age. There is no significant association between the level of knowledge among urban adolescent girls with religion of urban adolescent girls, class of studying, educational status of mother, history of teenage pregnancy in the family, type of family, number of children, mode of recreation, and source of information of urban adolescent girls. So, the H_2 hypothesis was accepted for age, and rejected for other socio-demographic variables.

The computed χ^2 value between the level of knowledge among rural adolescent girls with selected socio-demographic variables. Age ($\chi^2=0$), religion ($\chi^2=0.83$), educational status of mothers ($\chi^2=3.10$), occupation ($\chi^2=1.63$) monthly income ($\chi^2=0.36$ type of family ($\chi^2=0.27$ number of children ($\chi^2=5.0$), history of teenage pregnancy in family ($\chi^2=1.15$), mode of recreation ($\chi^2=0.66$), source of information ($\chi^2=0.587$) and heard information about problems of teenage pregnancy ($\chi^2=0.040$) were found to be not significant at 0.05 level. Thus, it can be interpreted that there is no significant association between the level of knowledge among rural adolescent girls with age of rural adolescent girls, religion of rural adolescent girls, class of studying, educational status of mother, occupation of mother, monthly income, type of family, number of children, history of teenage pregnancy in family, mode of recreation, source of information. So, the H_2 hypothesis

was rejected for all socio-demographic variables in rural adolescent girls.

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