A Study to Assess the Effectiveness of Structure Teaching Programme on Knowledge and Attitude Regarding Reproductive Health among Adolescent Girls in A Selected School Bengaluru

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Abstract

Background And Purpose: Adolescence is a transitional stage of physical and psychological development that generally occurs during the period from puberty to adulthood. It is a decisive age for girls. They often lack knowledge regarding reproductive health and are vulnerable to sexual assault and exploitation. This creates various problems like menstrual problems, STD, unwanted pregnancy unsafe abortions etc. Especially in India the special needs of adolescent girls are rarely addressed. The present study is aimed to assess the knowledge and attitude regarding reproductive health among adolescent's girls in a selected school, Bengaluru.

Methods: Quasi- Experimental Research Design was adopted for the present study. The self-administered structured questionnaire was used to collect data related to demographic variables and knowledge questionnaire whereas 5-point rating scale was used to assess the attitude of the adolescent girls regarding reproductive health. 60 adolescent girls were selected by simple random sampling technique. The main study was conducted from 18/02/2016 to 26/02/2016 at Royal Concorde International School, Bengaluru and the data collected was analyzed and interpreted based on descriptive and inferential statistics.

Result: The present study showed that the pre-test mean knowledge score obtained by the students was 11.23 and the pre-test mean attitude score was 41.50. After administering structured teaching programme regarding reproductive health, post-test mean knowledge score increased to 23.07 and posttest mean attitude score increased to83.25. The obtained t value (30.20) was found to be highly significant at 0.001 levels. The correlation (r = 0.132) between pretest knowledge and attitude was found to be highly significant (p=0.00) at 0.001 level whereas posttest correlation (r=0.412, p=0.00) was significant at 0.001 level. Thus, it was evident that the developed structured teaching programme was effective in increasing the knowledge and modification of attitude of adolescent girls regarding reproductive health

Discussion: The overall findings of the study clearly showed that the Structured Teaching Programme was significantly effective in improving the knowledge and modification of attitude regarding reproductive health of adolescent girls.

Keywords: Knowledge, Attitude, Reproductive health, Adolescent girls, Anemia, Gynecological diseases

Introduction

Adolescence is a Latin word derived from the verb "Adolescere" which means to grow into adulthood. Adolescence is a time of moving from the immaturity of childhood to the maturity of adulthood. The period of adolescence is most closely associated with the teenage years, through its physical, psychological and cultural expressions may begin earlier and end later.[1] The World Health Organization (WHO) defines an adolescent as an individual in the 10-19 years age group and usually uses the term young person to denote those between 10 and 24 years. Adolescence is a period of transition from childhood to

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adulthood during which adolescents develop biologically and psychologically and move towards independence.[2]

Reproductive health is an important component of general health, it is a prerequisite for social and economic and imperative because human energy and creativity are the driving forces of development. Reproductive health is a crucial part of general health and a central feature of adolescent development, reproductive health is a universal concern, but is of special importance for women particularly during the reproductive years, that is, from 12-19 years.[3] Menstruation is generally considered as unclean in the Indian society. Isolation of the menstruating girls and restrictions being imposed on them in the family, have reinforced a negative attitude towards this phenomenon.[4] Understanding the knowledge, practices, and problems related to menstruation and reproductive health, will help in planning programs for this vulnerable group.[5]

Adolescents are at higher risk for acquiring sexually transmitted diseases (STD) and adolescent girls in particular are disproportionately affected. Adolescent girls have high rates of other sexually transmitted infections such as genital herpes, trichomonas, and bacterial vaginosis, syphilis, gonorhorea, HIV/AIDS. This is because of having a history of forced sex, a greater number of sexual partners, be younger at first sex, having drugs etc.[6]

There are many services started by the government which have started working for adolescent health and are made accessible. These services are passing information including education regarding reproductive health, counseling of adolescents about how to prevent sexually transmitted diseases and on how to detect and avoid unwanted pregnancies and abortions.[7]

Adolescence has been described as a phase of life beginning in biology and ending in society. The young adolescents of 12-19 years have special needs in all circumstances and each age group within this population has different problems and requirements. In India, the populations of the adolescents are increasing day by day and so is the demand for their health. So far the health system has been more specifically targeted to infants and children below 6 years, therefore the unmarried adolescents have been totally ignored by government and other health sectors.[8]

Menstrual hygiene is also one of the important aspects of reproductive health, which includes, physical hygiene like taking bath regularly during menses, using clean sanitary pads and changing them frequently etc. Despite major developments in the hygiene and sanitation sector in recent years, the menstrual requirements of women and adolescent girls have been ignored. Overcoming this gap is vital. Menstruation is normal and natural but many adolescent girls suffer because of widespread ignorance and shame.[9]

Teenage pregnancy is a serious social problem. Having children at a young age can damage young women's mental and physical health, limit their education and career prospects, and increase their risk of living in poverty and social isolation. The fetus is at risk of higher rates of prenatal mortality, low birth weight, sudden infant death syndrome and substance dependence.[10]

Objectives of the Study

- To assess the level of knowledge and attitude regarding reproductive health among adolescent girls.
- To find out the effectiveness of STP on knowledge and attitude regarding reproductive health among adolescent girls in terms of pretest and posttest knowledge and attitude.
- To find out the correlation between knowledge and attitude regarding

reproductive health among adolescent girls.

- To find the association between the pretest knowledge scores with selected demographic variables.
- To find association between the pretest attitude scores with selected demographic variables.

Methodology

The theoretical frame work for the present study is based on the general system theory by Ludwig Von Bertanlanffy with nursing process (1968). The study is based on Quasi-experimental; one group pre-test post-test design was used for data collection. Informed consent has been taken from the participants. The independent variable refers to structured teaching programme on reproductive health and dependent variable refers to knowledge and attitude regarding reproductive health among adolescent girls. There are 2 tools on reproductive health among adolescent girls was developed to collect the data as tool 1 which consist of part I and part II and 5-point rating scale was developed to assess the attitude of the adolescent girls which is included in tool 2.

Tool - 1:

The tool consists of the following sections:

Part-1: consisted of items on demographic variables which gives base line information of the students such as age, religion, grade of study, educational qualification of parents and occupation of parents, type of family, family income/month and source of information related to reproductive health among adolescent girls.

Part- II: Consisted of 30 items related to knowledge regarding reproductive health among adolescent girls. It was further divided into 5 sections, 5 questions on anatomy & physiology, 4 questions on forms and risk factors of bullying, 2 questions related to effects of bullying and 8 questions on intervention and preventive measures of bullying.

Tool-2 5-point rating scale to assess the attitude of children regarding reproductive health among adolescent girls.

Pilot study was conducted on 25/01/2016 to 01/02/2016 in a school, Bengaluru, respectively after taking informed consent from the participants to find out the feasibility of the study. Totally 20 subjects were selected by using random sampling technique. The main study was conducted at two schools, Bengaluru, from 9/02/2016 to 16/02/2016 among 60 adolescent girls who were selected by random sampling technique and the collected data was analyzed and interpreted using descriptive and inferential statistics.

Results

Demographic Characteristics of Adolescent Girls

In the present study the distribution of the subjects by age revealed that the majority 23(38.3%) of the adolescent girls belonged to the age group of 16 years, 45(75%) of adolescent girls were Hindus. Majority 35(58.3%) of the adolescent girls were in 12^{TH} standard. In the present study 22(36.7%) of adolescent girls' father had PUC education and 28(46.7%) of the adolescent girls' mother had high school education, 33(55%) of the adolescent girls' father were in business and 45(75%) of the adolescent girls' mother were house wife. Majority 24(40%) of the adolescent girls had a family income of 10000 -15000/month, 49(81 %) of the adolescent girls belonged to nuclear family and 37(61.7 %) of the adolescent girls got information about reproductive health through teachers and parents.

Assessment of level of knowledge and attitude regarding reproductive health among adolescent girls in a selected school

The present study reveals that overall mean knowledge score obtained by the adolescent girls in pre-test was 11.23 with standard deviation of 3.70 where as in post-test was 23.07 with standard deviation of 1.93

The present study reveals that overall mean attitude score obtained by the adolescent

girls in pre-test was 41.50 with standard deviation 7.02 where as in post-test was 83.25 with standard deviation 6.66

Assessment of knowledge and attitude scores of adolescent girls regarding reproductive health

The results shows that in pre-test 80% of the adolescent girls had inadequate knowledge and 20% had moderately adequate knowledge regarding reproductive health. Where in the post-test 81.7% of the adolescent girls had adequate knowledge and 18.3% had moderately adequate knowledge regarding reproductive health.

Areawise mean, S.D and mean percentage of the pre-test and post test attitude scores of adoloscent girls

The above table shows that in the pretest maximum mean score obtained by the adolescent girls was 10.83 with S.D of 2.11 in the aspect of menstrual cycle. Where as in the post test maximum mean obtained by the adolescent girls was 21.25 with S.D of 2.50 in the aspect of Sexual education. Similarly, in pretest the mean of overall attitude obtained by the adolescent girls was 41.50 with the S.D of 7.024 and in posttest the mean of overall attitude obtained by the adolescent girls was 83.25 with the S.D of 6.66.

Effectiveness of stp on knowledge and attitude regarding reproductive health among adolescent girls

The result showed that the overall mean pretest knowledge score 11.23 with SD 3.70 was lesser than the mean post-test knowledge score 23.07 with SD 1.93. The obtained' value (23.57) was found to be significant (p=0.00) at 0.001 level. Further the data shows that there was a significant difference between area wise pre and posttest knowledge (p=0.00) at 0.001 level. Thus, structure teaching programme was highly effective on level of knowledge of the adolescent girls regarding reproductive health and hypothesis (H_1) was accepted.

Similarly, the overall pretest mean attitude score of the adolescent girls regarding reproductive health was 41.50 with SD 7.03 was lesser than the posttest attitude score 83.25 with SD 6.66. The obtained t value (30.20) was found to be significant (p=.00) at 0.001

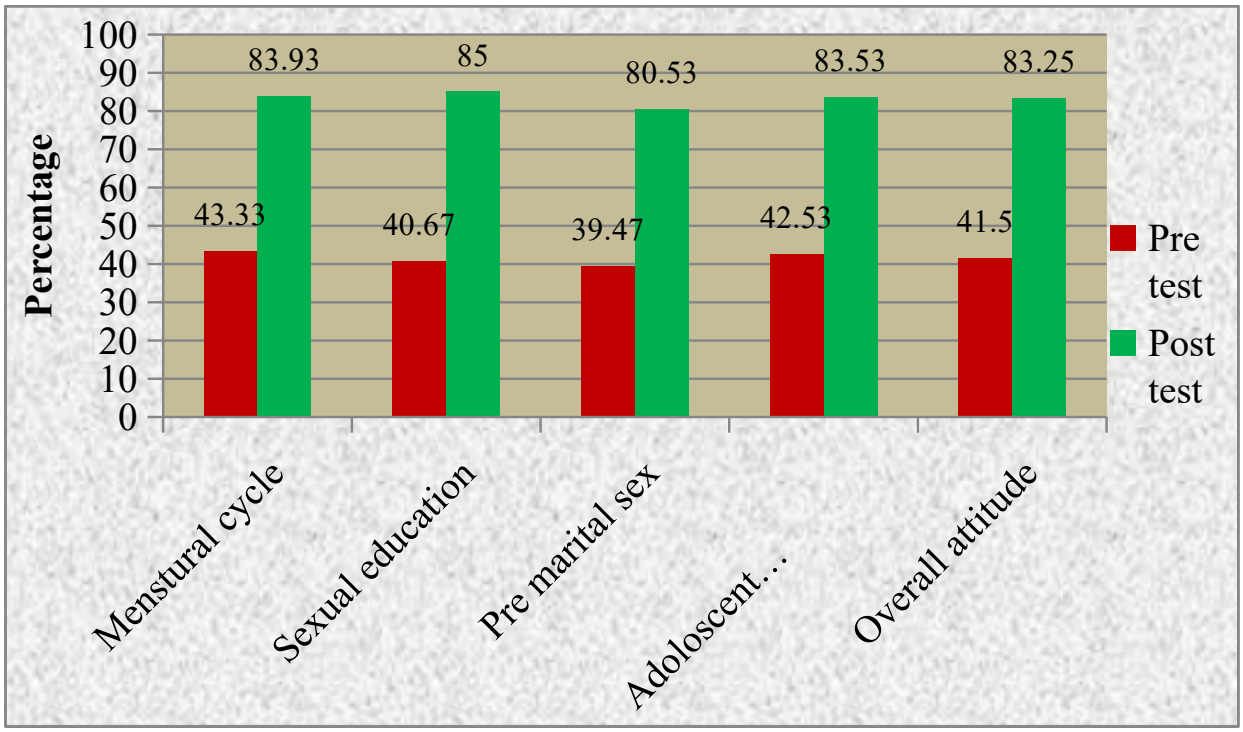

Figure 1: Areawise pre test & post test mean percentage attitude scores of adoloscent girls

level. Thus, it means that STP was effective in modification of attitude of adolescent girls. Hence hypothesis H_2 was accepted.

Mean, sd and paired – t value of knowledge of adoloscent girls regarding reproductive health

The result showed that the overall mean pretest knowledge score 11.23 with SD 3.70 was lesser than the mean post-test knowledge score 23.07 with SD 1.93. The obtained t' value (23.57) was found to be highly significant (p=0.00) at 0.001 level. Further the data shows that there was a significant difference between area wise pre and posttest knowledge (p=0.00) at 0.01, 0.05 level. Thus, structured teaching programme was highly effective on level of knowledge of the adolescen t girls regarding reproductive health and hypothesis (H_1) was accepted.

Mean, sd and paired - t value of attitude of adoloscent girls regarding reproductive health

The result showed the overall pretest mean attitude score of the adolescent girls regarding reproductive health was 41.50 with SD 7.03 was lesser than the post test attitude score 83.25 with SD 6.66. The obtained t value (30.20) was found to be significant (p=0.00) at 0.001 level. Thus, it means that structure teaching programme was effective in modification of attitude of adolescent girls. Hence hypothesis H_2 was accepted.

Correlation between knowledge and attitude regarding reproductive health before and after structured teaching programme.

The table 1 showed the correlation (r = 0.132) between pre test knowledge and attitude was found to be highly significant (p=0.00) at 0.001 level. Further data reveals that there was low positive correlation between pretest knowledge and attitude of adolescent girls Hence the research hypothesis (H_3) was accepted.

Mean, Sd And Pearson Correlation Of Post Test Knowledge And Attitude Score

The table 2 shows correlation (r =0.412) between post test knowledge and attitude

Table-1

	Variable	Mean	SD	r	P value	Inferences
Pre test	Knowledge	11.233	3.702	0.132	0.00**	Low positive correlation
	Attitude	41.50	7.024			

***highly Significance at p<0.001, df 59*

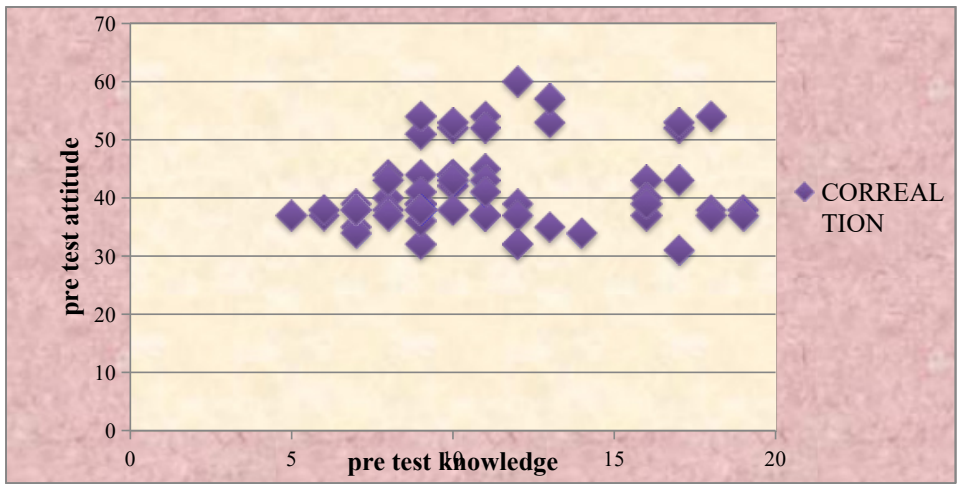

Figure 2: Correlation between pre-test knowledge and attitude scores of adoloscent girls

Table-2 n=60

	Variable	Mean	SD	r	p value	Inferences
POST TEST	Knowledge	23.066	1.929	0.412	0.00**	Significant positive Correlation
	Attitude	83.25	6.663			

**Significance at P<0.01 and p<0.05, df 59*

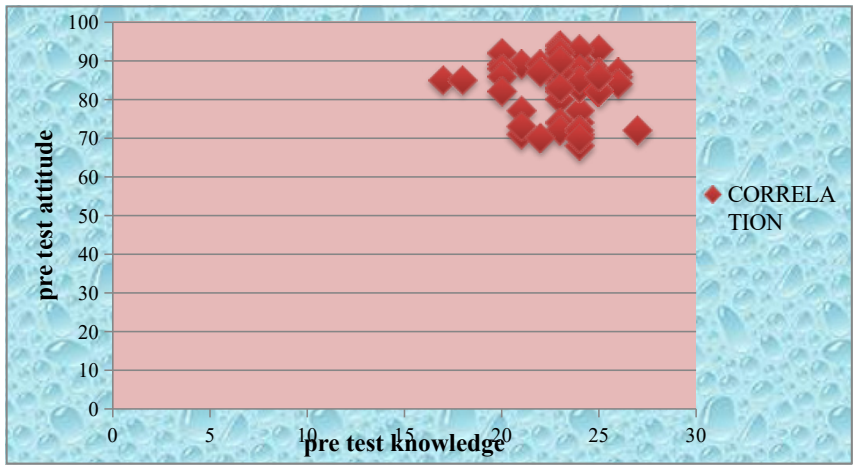

Figure 3: Correlation between post test knowledge and attitude score

was found significant (p =0.00) at 0.001 level. Further data reveals that there was positive correlation between posttest knowledge and attitude of adolescent girls regarding reproductive health. Hence the research hypothesis (H_3) was accepted.

A) Association of pre-test knowledge score with selected demographic variables

The finding showed that computated $\chi 2$ value between the pre-test knowledge scores of adolescent girls with selected demographic variables such as age, religion, class, education of parent, occupation of parent, types of family, income of family and sources of information. It shows that there was no significant association between knowledge scores of the adolescent girls regarding reproductive health with selected demographic variables at p<0.01 and p<0.05. Thus hypothesis (H_4) was rejected.

B) Association of pre-test attitude score with selected demographic variables

The finding revealed that computated $\chi 2$ value between the pre-test attitude scores of adolescent girls with selected demographic variables such as age, religion, class, education of parent, occupation of parent, types of family, income of family and sources of information. It shows that there was no significant association between attitude scores of the adolescent girls regarding reproductive health with selected demographic variables at p<0.01 and p<0.05. Thus hypothesis (H_5) was rejected

Association between pre-test knowledge scores regarding reproductive health among adoloscent girls with the selected demographic variables

The above table 2 depicts computation of $\chi 2$ value between the pre-test knowledge scores of adolescent girls with selected demographic variables such as age, religion, class, education of parent, occupation of parent, types of family, income of family and sources of information. It shows that there was no significant association between knowledge scores of the adolescent girls regarding reproductive health with selected demographic variables at p<0.01 and p<0.05. Thus hypothesis (H_4) was rejected.

MAJOR FINDINGS OF THE STUDY

- In knowledge, **pre-test** 48 (80%) of the adolescent girls had inadequate knowledge and 12 (20%) had moderately adequate knowledge regarding reproductive health. and 0% had adequate knowledge regarding reproductive health. Likewise In **post-test** 49 (81.7%) of the adolescent girls had adequate knowledge and 11(18.3%) had moderately adequate knowledge and 0% have inadequate knowledge regarding reproductive health.
- The maximum mean score obtained by the adolescent girls in pre-test was 2.72 with SD 1.47. Whereas in post-test 6.05 with SD 0.98 in menstrual cycle and menstrual hygiene. Similarly, the overall post-test mean score was 23.07with the S.D of 1.93 and pre-test mean score was 11.23 with SD of 3.70.
- In attitude **pre-test**, 48(80%) of the adolescent girls had inadequate attitude, 12(20%) had moderately adequate attitude 0% had adequate attitude. Likewise in **post-test** 49(81.7%) had Adequate Attitude and 11(18.3%) had moderately adequate attitude and 05 had inadequate knowledge.
- In the pre-test maximum mean score obtained by the adolescent girls was 10.83 with S.D of 2.11 in the aspect of menstrual cycle. Where as in the post test maximum mean obtained by the adolescent girls was 21.25 with S.D of 2.50 in the aspect of Sexual education. Similarly in pre-test the mean of overall attitude obtained by the adolescent girls was 41.50 with the S.D of 7.024 and in post-test the mean of overall attitude obtained by the adolescent girls was 83.25 with the S.D of 6.66.
- The overall mean pre-test knowledge score 11.23 with SD 3.70 was lesser than the mean post-test knowledge score 23.07 with SD 1.93. The obtained 't' value (23.57) was found to be significant (p=0.00) at 0.001 level. Further the data shows that there was a significant difference between area wise pre and post-test knowledge (p=0.00) at 0.001. Thus, structure teaching programme was highly effective on level of knowledge of the adolescent girls regarding reproductive health and hypothesis (H_1) was accepted.
- the overall pre-test mean attitude score of the adolescent girls regarding reproductive health was 41.50 with SD 7.03 was lesser than the post-test attitude score 83.25 with SD 6.66. The obtained t value (30.20) was found to be significant (p=0.00) at 0.001 level. Thus, it means that structure teaching programme was effective in modification of attitude of adolescent girls. Hence hypothesis H_2 was accepted.
- The computed $\chi 2$ value between the pre-test attitude scores of adolescent girls with selected demographic variables such as age, religion, class, education of parent, occupation of parent, types of family, income of family and sources of information. It shows that there was no significant association between attitude scores of the adolescent girls regarding reproductive health with selected demographic variables at $p<0.01$ and $p<0.05$. Thus hypothesis (H_5) was rejected.

Conclusion

The focus of this study was to assess the effectiveness of STP on knowledge and attitude regarding reproductive health among adolescent girls. The collected data was subjected to analysis using descriptive statistics such as frequency, mean and mean percentage, median and standard deviation. Inferential statistical methods like paired' test, correlation coefficient and Chi- square ($\chi 2$) were used for analysis. The overall results of the study sound good comparatively to the post test from pre-test.

List of Abbreviation

STP - Structured teaching programme.

SD - Standard Deviation

STD - Sexually Transmitted Disease

Ethical Clearance

Ethical clearance has been obtained from the concerned authority and participants.

Source of Funding

This is a self-funded study.

Conflict of Interest

Have no conflict of interest relevant to this research study.

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