

Original Research Article

A Study to Develop and Evaluate the Effectiveness of Information Booklet Regarding Prevention and Control of Sexually Transmitted Infections in Terms of Knowledge and Attitude of Adolescents in Selected Private School of Delhi

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ABSTRACT

Introduction: Sexually transmitted diseases are a serious public health problem. Adolescents in India are a particularly disadvantaged group in relation to sexual and reproductive health.

Materials and methods: The research approach adopted for the study was evaluative with one group pre-test post-test design. The population comprised of adolescents who were studying in 11th class of Mata Nand Kaur Sr. Sec. Public School, Dhansa Village, New Delhi. Quota sampling technique was used to select a sample of 50 adolescents. The tool consisted of a structured questionnaire (knowledge, attitude scale and opinionnaire on acceptability of Information booklet). The adolescents who participated in the study were given a pre test and Information Booklet administered. Post test was conducted on 7th day. An opinionnaire on acceptability of the Information Booklet was administered after post test.

Results: Mean post-test knowledge and attitude score of the adolescents were significantly higher than their mean pre-test knowledge and attitude score; a significant positive relationship was found between knowledge and attitude of the adolescents after the administration of Information Booklet; there was significant association between post test knowledge score with variables like education of mother, source of information and stream of education; and between post test attitude score with variables like source of information and stream of education; and Information Booklet was found to be highly acceptable and useful by the adolescents.

Conclusion: Information Booklet was found to be effective and there was a high level of acceptability of the information booklet.

Key words: Sexually Transmitted Infection, knowledge, attitude.

INTRODUCTION

Adolescence is a period of transition between childhood and adulthood. It is the time of profound biologic, intellectual, psychosocial and economic changes. During this period, an individual reaches physical and sexual maturity develops more sophisticated reasoning ability and makes educational and occupational decisions that will shape their adult career.

According to Census of India, (2011), about 30% of India's population is in the adolescent age group of 10-19 years. It

is estimated that there are almost 331 million adolescents in India. Adolescents aged between 10-19 years account for more than one-fifth of the world's population. ⁽¹⁾

Adolescents in India are a particularly disadvantaged group in relation to sexual and reproductive health due to their ignorance of matters related to sexuality, lack of factual knowledge about contraception, early marriage and child birth and their inability or unwillingness to use most family planning and health services despite a number of national and state-

specific programs having been implemented to raise awareness about the sexual and reproductive health among the young people. Gender and sexual violence, sexually transmitted diseases, reproductive tract infection and HIV/AIDS are some of the risks associated with sexual activity under these circumstances. Adolescence is shrouded in myths and misconceptions about sexual health and sexuality.

There is an arising trend of STD throughout the globe. With the improvement of diagnostic methods and increased interest on STD, more and more diseases are included mostly of viral origin.

Sexually transmitted diseases are a serious public health problem, recognized since the beginning of recorded history. These diseases are associated with substantial morbidity and in some cases mortality. The incidence of sexually transmitted diseases continues to increase worldwide and infection is becoming more severe. Sexually Transmitted diseases also facilitate the development of HIV infection and AIDS.

According to United Nations Population Fund, (2004), studies indicate that between 20% and 30% of young men and up to 10% of young women have premarital sexual experiences. Women, have a higher incidence of STIs than men because of their greater biological susceptibility.⁽²⁾

Sexually Transmitted Infections, including HIV mainly affect sexually active young people. Young adults aged 15–29 years, account for 32% of AIDS cases reported in India and the number of young women living with HIV/AIDS is twice that of young men [NACO, 2005].⁽³⁾

CDC, (2008), stated that males accounted for an estimated 71 percent of all HIV diagnoses among adolescents aged 13–19.⁽⁴⁾

Adolescents who have multiple sexual partners, have unprotected sex, or take part in other high risk sexual behaviors are at greater risk of getting an STD. STIs found in adolescents include gonorrhea,

chlamydial infection, syphilis, trichomoniasis, chancroid, genital herpes, genital warts, HIV infection and hepatitis B infection. Several STIs, in particular HIV and syphilis, can also be transmitted from mother to child during pregnancy and childbirth, and through blood products or tissue transfer.

Each year an estimated 333 million new cases of curable STIs occur worldwide with the highest rates among 20-24 year olds, followed by 15-19 year olds. One in 20 young people is believed to contract a STI each year, excluding HIV and other viral infections. A minority of adolescents have access to any acceptable and affordable STI services.

Recognizing this growing need for reproductive health, the Government of India initiated Reproductive and Child Health (RCH) program in 1997-98. This program is highly targeted towards pregnant women and contraception for adults. This program is widely criticized for not giving much attention to the needs of the adolescent population

The statistics becomes even more alarming considering the fact that diseases like gonorrhea, chlamydia and herpes show an ice-berg phenomenon and therefore go virtually undetected. Reproductive health of young adults has to be recognized as a vital prerequisite for fulfilling our commitment towards achieving the Millennium Development Goals. Thus, it is essential to evaluate the level of awareness regarding STIs in the population.

OBJECTIVES OF THE STUDY

1. Develop an Information Booklet regarding prevention and control of Sexually Transmitted Infections for adolescents.
2. Assess and evaluate the level of knowledge of Adolescents regarding prevention and control of Sexually Transmitted Infections before and after the administration of Information Booklet.

3. Assess and evaluate the level of attitude of Adolescents regarding prevention and control of Sexually Transmitted Infections before and after the administration of Information Booklet.
4. Determine the relationship between post-test knowledge and post-test attitude of adolescents regarding prevention and control of Sexually Transmitted Infections.
5. Find out the association between post-test knowledge with selected demographic variables.
6. Find out the association between post-test attitudes with selected demographic variables.
7. Seek the acceptability and utility of Information Booklet regarding prevention and control of Sexually Transmitted Infections by adolescents.

METHODOLOGY

The research approach adopted for the study was evaluative with one group pre-test post-test design. Research Design was experimental research. Research approach was One group pre –test, post-test quasi experimental design was selected for the study by including the Information Booklet as an intervention among the adolescent students. (O1 x O2). The conceptual framework is based on King Imogene theory of goal attainment.

Research Setting was Mata NandKaur Sr. Sec. Public School, Dhansa Village, New Delhi. NavUday Convent Senior Secondary Public School, Najafgarh, New Delhi) was selected for the pilot study.

Population:-The population comprised of adolescents who were studying in 11th class of Mata NandKaur Sr. Sec. Public School, Dhansa Village, New Delhi.

Sample size was 50 Subjects, and sampling technique - quota sampling technique. Sampling criteria for inclusion included Adolescents studying in class 11th of Mata NandKaur Sr. Sec. Public School, Dhansa Village; adolescents who were willing to

participate in the study and adolescents present at the time of study.

Variables under study were

Dependant variables: are knowledge and attitude of adolescents regarding prevention and control of Sexually Transmitted Infections as evident from structured knowledge questionnaire and attitude scale.

Independent variables: IB regarding prevention and control of sexually transmitted infection among adolescents.

Extraneous variables: Sex, Educational Level of mother and father, Occupation of father and mother, type of family, source of information, and stream of education.

Research hypothesis

H₁ – The mean post-test knowledge scores of adolescents regarding prevention and control of Sexually Transmitted Infections will be significantly higher than their mean pre-test knowledge scores as evident from structured knowledge questionnaire at 0.05 level of significance.

H₂ – The mean post-test attitude scores of adolescents regarding prevention and control of Sexually Transmitted Infections will be significantly higher than their mean pre-test attitude scores as evident from attitude scale at 0.05 level of significance.

H₃ – There will be a significant relationship between post-test knowledge scores and post-test attitude scores of adolescents regarding prevention and control of Sexually Transmitted Infections as evident from knowledge questionnaire and attitude scale at 0.05 level of significance.

H₄ – There will be a significant association between post-test knowledge of adolescents regarding prevention and control of Sexually Transmitted Infections with selected demographic variables at 0.05 level of significance.

H₅ – There will be a significant association between post-test attitude of adolescents regarding prevention and control of Sexually Transmitted Infections with selected demographic variables at 0.05 level of significance.

Extensive literature review was done on literature related to Sexually transmitted diseases among adolescents and adults, and use and evaluation of Information Booklet (IB).

Data collection tool & technique:

consisted of structured questionnaire/interview schedule of six parts: Part A: Demographic Data (09 items); Part B: Knowledge Data.(30 items); Part C: Attitude Data (20 items); and Part G: Opinionnaire on acceptability of the Information Booklet on Sexually Transmitted Diseases. Reliability of structured knowledge questionnaire was established by using KR-20 formula and was found to be 0.86, attitude scale was calculated by using Cronbach's alpha which was found to be 0.9 and of Opinionnaire by using Cronbach's alpha and was found 0.79. The data collected was tabulated in a master sheet. Descriptive and inferential statistics was used for analysis and interpretation. The Information Booklet was developed under the following headings:

- Chapter – 1 (Introduction of Sexually Transmitted Infections)
- Chapter – 2 (Anatomy & Physiology of Male and Female Reproductive organs)
- Chapter – 3 (Most common types of Sexually Transmitted Infections and their sign/symptoms)
- Chapter – 4 (Prevention and Control of Sexually Transmitted Infections)

Fifteen adolescent students were selected for the study and conducted between 3/12/2013 to 10/12/2013. Findings of the pilot study revealed it is feasible to conduct the study. No problem was faced during the pilot study.

Data collected from 15th February to 22nd February 2014.

Demographic data -

- There were more no. of male adolescents 31(62%) as compared to

female adolescents 19(38%) who participated in the study.

- Educational status of parents indicated that 25(50%) fathers were higher secondary educated, 10(20%) were secondary educated and 6(12%) were graduates and above. While 21(42%) mothers were secondary educated, 15(30%) were higher secondary educated whereas 6(12%) were illiterates.
- Regarding occupation of parents, 18(36%) fathers were self-employed, 17(34%) were private employees while 1(2%) was unemployed, while 31(62%) mothers were housewife and 13(26%) were self-employed.
- Most of the sample belonged to the family income of Rs.25, 001-35,000 i.e. 22(44%) and 17(34%) belonged to the family income of below Rs. 15,000.
- Majority of the sample belonged to joint family i.e. 34(68%) and 16(32%) belonged to nuclear family.
- As per source of information, 22(44%) accepted family member as a source of information and 14(28%) accepted friends as a source of information.
- Most of the sample i.e. 30(60%) adolescents were from arts stream.

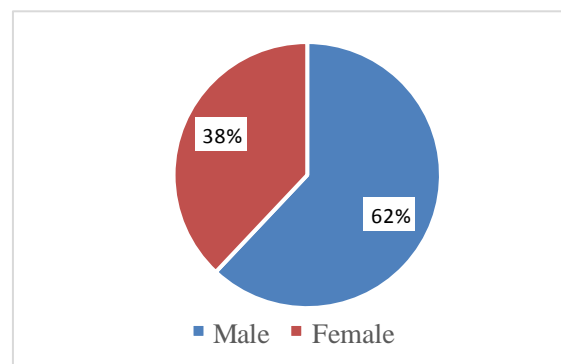


Figure 1: Pie chart showing % distribution of the adolescents according to their sex

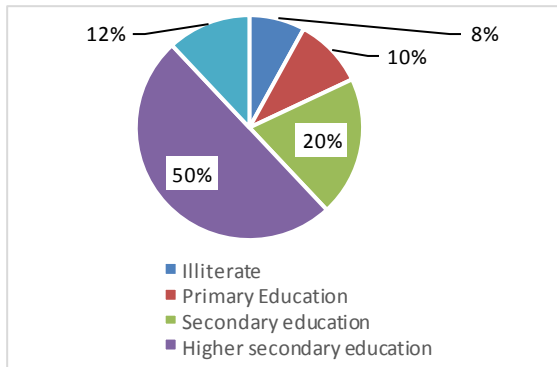


Figure 2: Pie chart showing % distribution of the adolescents according to educational status of father

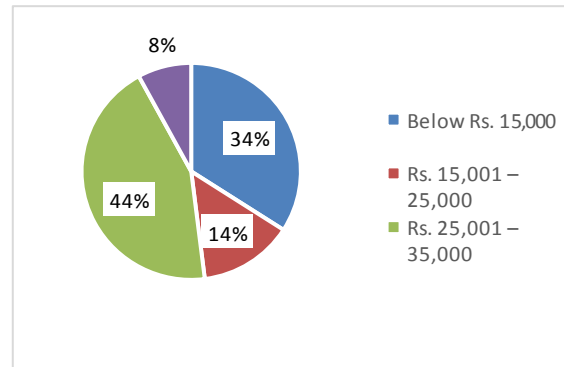


Figure 6: Pie chart showing % distribution of the adolescents according to family income (Per Month)

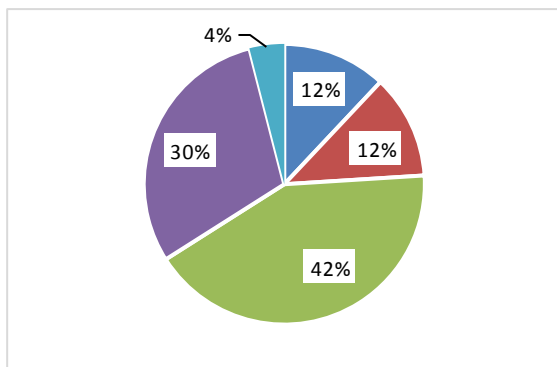


Figure 3: Pie chart showing % distribution of the adolescents according to educational status of mother

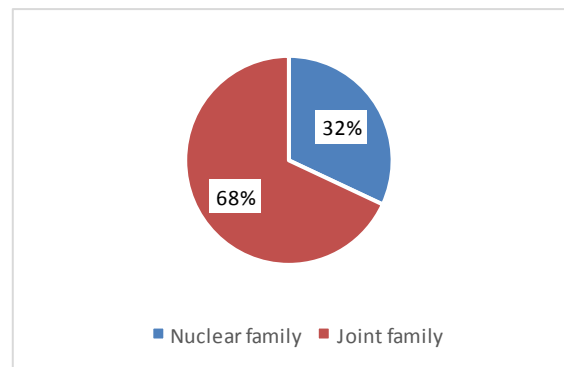


Figure 7: Pie chart showing % distribution of the adolescents according to type of family

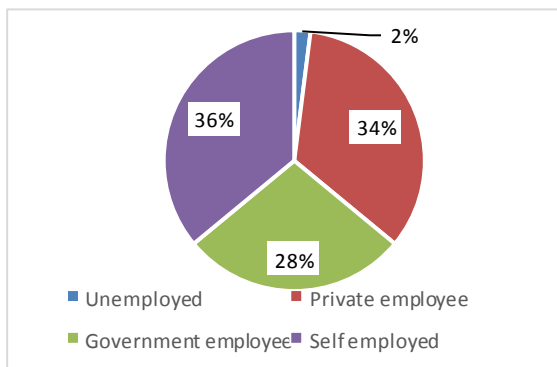


Figure 4: Pie chart showing % distribution of the adolescents according to occupation of father

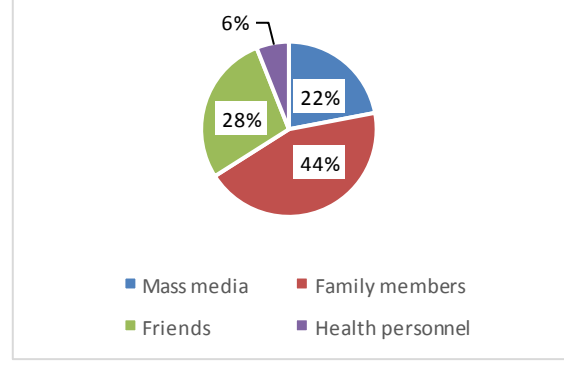


Figure 8: Pie chart showing % distribution of the adolescents according to source of information

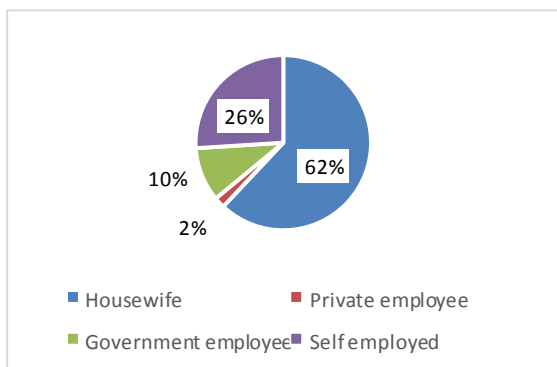


Figure 5: Pie chart showing % distribution of the adolescents according to occupation of mother

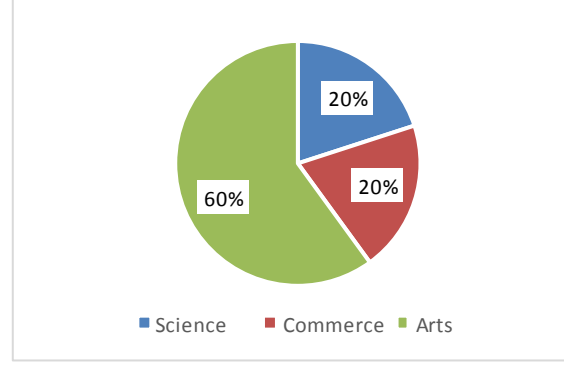


Figure 9: Pie chart showing % distribution of the adolescents according to stream of education

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Table 1 Mean, Median, Standard deviation of pre-test and Post-test knowledge scores of adolescents N=50

Knowledge test	Mean	Median	Standard deviation
Pre-test	12.24	13.0	3.59
Post-test	24.86	25.0	2.37

Maximum Scores-30

Table -2 Mean, Mean difference, Standard deviation difference, Standard error of mean difference, 't' value of pre-test and post-test knowledge scores of adolescents N=50

Knowledge test	Mean	MD	SD _D	SE _{MD}	't' value
Pre-test	12.24				
Post-test	24.86	12.62	4.09	0.58	21.82*

*Significant at 0.05 level, df (49) 't'=2.01 at 0.05 level of significance

Table 3 Frequency and Percentage distribution of pre-test and post-test knowledge of adolescents regarding prevention and control of STIs N=50

Knowledge level	Pre-test		Post-test	
	Frequency	%	Frequency	%
Below average (0-10)	17	34.0	0.0	0.0
Average (11-20)	33	66.0	0	0.0
Good (21-30)	0	0.0	50	100

Maximum Scores - 30

Table 4 Mean, Median, Standard deviation of pre-test And post-test attitude scores of adolescents (N=50)

Attitude test	Mean	Median	Standard deviation
Pre-test	46.60	49.50	12.39
Post-test	75.14	75.00	2.77

Maximum Scores - 100

Table 5 Mean, Mean difference, Standard deviation difference, Standard error of mean difference, 't' value of pre-test and post-test attitude scores of the Adolescents N=50

Knowledge test	Mean	MD	SD _D	SE _{MD}	't' value
Pre-test	46.60	28.54	13.24	1.87	15.24*
Post-test	75.14				

*Significant at 0.05 level, df(49) 't'=2.01 at 0.05 level of significance

Table 6 Chi Square Values Showing Association between Post-test Attitude Scores with Selected Demographic Variables of Adolescents (N=50)

S. No.	Selected Factors	df	Chi Square Value (knowledge)	Table Value of Chi Square
1	Sex	1	1.746	3.84
2	Educational status of father	4	2.254	9.49
3	Educational status of mother	4	4.106	9.49
4	Occupation of father	3	4.380	7.82
5	Occupation of mother	3	1.775	7.82
6	Family income (per month)	3	0.355	7.82
7	Type of family	1	0.048	3.84
8	Source of Information	3	11.232*	7.82
9	Stream of education	2	6.656*	5.99

*Significant at 0.05 level

Data presented in Table 3, showed that in pre-test maximum samples i.e. 33(66%) were having average knowledge whereas 17 (34%) having knowledge below average. And in post-test all i.e. 50(100%) were having good knowledge.

The data presented in Table 4, showed that mean post-test attitude scores

The data presented in Table 1 showed that mean post-test knowledge scores (24.86%) was higher than their pre-test knowledge scores (12.24%), there was decrease in the standard deviation from pre-test (3.59) to post-test (2.37). The finding revealed that the post-test knowledge scores were more homogenous (SD 2.37) than the pre-test knowledge scores (SD 3.59). The mean and median were closer to each other in both the pre-test and post-test. This indicated a marginal reduction in the variability of the score.

From Table 2, it was evident that the mean post-test knowledge score (24.86) of the adolescents was higher than the mean pre-test knowledge scores (12.24) with the mean difference 12.62. The obtained mean difference was found to be statistically significant as evident from 't' value 21.82 for df(49) which was greater than the table value (2.01) for df (49) at 0.05 level of significance. This showed that the obtained mean difference was a true difference and not by chance. Hence null hypothesis H_{01} was rejected and research hypothesis H_1 was accepted. So it can be inferred that the IB is effective to increase the knowledge of the adolescents.

(75.14%) was higher than their pre-test attitude scores (46.60%), there was decrease in the standard deviation from pre-test (12.39) to post-test (2.77). The finding revealed that the post-test attitude scores were more homogenous (SD 2.77) then the pre-test attitude scores (SD 12.39). The mean and median were closer to each other

in both the pre-test and post-test. This indicated a marginal reduction in the variability of the score

From Table 5, it is evident that the mean post-test attitude score (75.14) of the adolescent was higher than the mean pre-test attitude scores (46.60) with the mean difference 28.54. The obtained mean difference was found to be statistically significant as evident from 't' value 15.24 for df (49) which was greater than the table value (2.01) for df (49) at 0.05 level of significance. This shows that the obtained mean difference was a true difference and not by chance. Hence null hypothesis H_{02} was rejected and research hypothesis H_2 was accepted. So it can be inferred that the IB was effective in developing highly favorable attitude of the adolescents.

The data presented in Table 6, showed the Chi square values obtained to find the association between post-test attitudes of the adolescents with selected demographic variables.

There was a significant association between the post-test attitude of the adolescents with source of information as shown by obtained chi square value 11.232 which was greater than table value of chi square value (7.82) at df(3) at 0.05 level of significance. Hence research hypothesis H_{5h} was accepted and null hypothesis H_{05h} was rejected. This indicated that adolescents, who have family members as the source of information, will have favorable attitude regarding prevention and control of STIs. Hence it showed that there was impact of source of information on the attitude of adolescents.

There was a significant association between the post-test attitudes of the adolescents with stream of education as shown by obtained chi square value 6.656 which was greater than table value of chi square value (5.99) at df (2) at 0.05 level of significance. Hence research hypothesis H_{5i} was accepted and null hypothesis H_{05i} was rejected. This indicated that adolescents, who have science stream of education, will

have favorable regarding prevention and control of STIs.

DISCUSSION

Lal SS, VasanR.S., et.al.,(2000), conducted a community based cross sectional survey of 635 randomly selected undergraduate college students. This study identified substantial lacunae in the knowledge of and attitude towards AIDS, STDs and sexuality among college students in Kerala. ⁽⁵⁾

Jaiswal S, MagarBS, et. al., (2005), conducted a study in Kathmandu Valley to assess the knowledge, attitude and practice among high school students regarding HIV/AIDS and STIs. Results showed that knowledge on some aspects of the disease was quite low in the study group. Knowledge about STIs was also quite low. Female's knowledge about HIV was lower as compared to male. ⁽⁶⁾

Kann L.,Tellijohann S.K., (2007), conducted a study among students to find out the effectiveness of school health education and found that school health education can effectively help reduce the prevalence of health risk behavior among students & have a positive influence on student's academic performance. The result of study revealed that health education has the potential to help students maintain and improve their health, prevent disease, and reduce health-related risk behaviors. ⁽⁷⁾

Mandell DS, Elley CC, et al., (2008), conducted a cross sectional study to estimate the relative risk of Sexually Transmitted Infections (STIs) among children identified as having learning disabilities in Philadelphia, Pennsylvania. The sample comprised 51,234 Medicaid-eligible children, aged 12-17 years, 8015 of whom were receiving special education services. There were 3% of males and 5% of females who were treated for an STI through the Medicaid system in 2002. Among females, those in the mental retardation (MR) category were at greatest risk (6.9%) and those in the emotionally disturbed or "no special education" category

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at lowest risk (4.9% each). Among males, STIs were most prevalent among those classified as mentally gifted (6.7%) and lowest among those in the MR category (3.0%). The finding that children with learning disabilities are at similar or greater risk for contracting STIs as other youth suggests the need to further understand their risk behaviors and the potential need to develop prevention programs specific to their learning needs. ⁽⁸⁾

K JyothiKamalam, B Rajalakshmi, (2005), conducted a study to assess the awareness regarding various aspects of reproductive health among post graduate (178) and professional (122) courses in colleges Thiruvananthapuram. Results revealed that, majority of the students (>80%) were aware of AIDS and 70 per cent are aware of STDs. Majority of them were not aware of the preventive measures to be taken against contracting these diseases. The overall findings of the study revealed that the students undergoing postgraduate and professional courses were generally lacking awareness regarding the various aspects of reproductive health. ⁽⁹⁾

CONCLUSION

Knowledge deficit and unfavorable attitude existed regarding prevention and control of STIs among adolescents.

The IB was found to be effective in increasing the knowledge and developing favorable attitude of the adolescents.

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