



Effectiveness of Planned Teaching Programme on Knowledge Regarding Reproductive Health among Adolescent Girls in Selected Higher Secondary Schools in Kollam, District

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The adolescent stage of life marks the transition from childhood to maturity. These are the formative years, when the most physical, psychological, and behavioural changes occur. The primary goal of the current study was to examine the effects of PTP on knowledge of sex education among teenage females. The study's objectives are to examine adolescent girls' awareness of specific elements of sex. To create and carry out a structured teaching programme on certain parts of sex education for teenage females. To assess the efficacy of the intended educational programme. To determine the relationship between pre-test knowledge scores and specified demographic characteristics. The study used an evaluative research technique with a one-group pretest-post-test design. The study's sample size was set at 50 teenage females. The study's sample approach was simple random sampling, which is a sort of probability sampling. A standardised questionnaire on sex education knowledge was utilised to collect pertinent data. Following the administration of PTP, there was a noticeable rise in knowledge scores in all

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categories considered in the research. Thus, it was proved that PTP was effective teaching method for creating awareness on importance of sex education and STI, STD and HIV/ AIDS transmission and focusing the reproductive health hazards like preventing sexual violence among youths.

Keywords: Knowledge of sex; adolescent girls; awareness; planned teaching program; improved knowledge post-teaching.

1. INTRODUCTION

The future of India lies in the hand of our youth. Adolescent is a period when physical growth and maturation are accompanied by mental and psychological development. It is extremely important period for developmental achievement and reproductive growth. Among adolescent period early adolescence is the first stage, characterized by a spurt of growth and the development of secondary sexual characteristics [1]. Changes make life more beautiful and worth living, if one knows how to adapt oneself and adjust to the challenges presented by the situation. Then he or she can face any challenge in life. The changes are more frequent in girls than boys. Girls mature earlier, and reach the period of rapid growth earlier than boys. The rapid growth and change in the physical structure is after the attainment of puberty [2-3].

So far the health system has been more specifically targeted to infants, children below 6yrs and pregnant women. Therefore unmarried adolescents have been ignored by the government and other health sectors. It is only since 1996 that reproductive and child health programme has included adolescent health in its spectrum of package [4-5]. There are many changes that occur to female body during puberty. Hence their reproductive health aspects need special and urgent attention of all concerned [6-8].

1.1 Need for the Study

A young girl becomes aware of the shades of grey; she may start to sense more vividly the hidden motives, thoughts and actions of others. She may start to sense a world beyond what she has experienced up until this time and, that may be confusing alternatively when she became an adolescent. When a young girl begins to grow up to adolescents she will be getting ready to perform her role in reproduction. Thus this period is the better time to educate about reproductive and child health. Then why not take an interest in teaching the girls during her adolescent period.

When young girls reach puberty, they wonder why these changes occur and want to know what

is normal. Thus, health care professionals must be well equipped to answer, and feel comfortable dealing with the adolescent questions and make them clear about the developmental changes. Among adolescents reproductive health, includes puberty and menstruation are considered as a land mark in the process of growth and maturation. This is a time in which the individual feels himself different from other and characteristics put the adolescents at risk for teasing. As a health professional the nurse should discuss, support and teach the adolescent girls regarding their reproductive health particularly during their adolescent period as they are in the changing process. This would prevent the adolescents from becoming psychologically upset, and the received education would wipe away all wrong ideas and misconceptions. Dysmenorrhea is defined as pain associated with menstruation. This is always associated with a negative impact on the social and academic achievement of many adolescent girls. While the pain may be only mild for some girls, others experience severe discomfort. Based on estimates, 15% of the total females aged 13-19 yrs experience severe dysmenorrhea. But still proper management and treatment can help the girls to reduce the intensity of pain and the occurrence of dysmenorrhea and also to avoid further complications knowledge [9-10].

So the investigator felt it was important to study and assess the knowledge of adolescent girls regarding reproductive health and there is a need of a planned teaching programme to improve their Associated with menstruation women will have to face many difficulties. Dysmenorrhea is one of the most common menstrual problems [11-12]. The present study is aimed to "evaluate the effectiveness of planned teaching programme on knowledge regarding reproductive health among adolescent girls in selected higher secondary schools at kollam district.

1.2 Operational Definition

In this study reproductive health refers to components like puberty and menstruation which includes anatomy and physiology of reproductive

system, development of secondary sexual characteristics, menstrual cycle, menstrual hygiene, dysmenorrhea and its management knowledge refers to correct written response of adolescent girls regarding puberty and menstruation. Effectiveness refers to an extent to which the planned teaching programme on reproductive health includes puberty and menstruation has achieved the desired effect in improving the knowledge of adolescent girls as evidenced by gain in posttest knowledge score. Adolescent Girls refers to the age group between 17-19 years of age who are studying in colleges for degree programme. Structured teaching programme refers to systematically developed instructional teaching on selected aspects of reproductive health components like puberty and menstruation which includes anatomy and physiology of female reproductive system, development of secondary sexual characteristics, menstrual cycle, menstrual hygiene, dysmenorrhea and its management [13-15].

The objectives of the study are to:

- Determine the knowledge of adolescent girls regarding selected reproductive health.
- Find the effectiveness of planned teaching programme among adolescent girls regarding reproductive health.
- Find the association between the pretest knowledge score and the selected demographic variables.

Hypotheses (All hypothesis will be tested at 0.05 level of significance)

H₁: The mean post test knowledge score of adolescent girls will be significantly higher than the mean pretest knowledge score.

H₂: There will be significant association between the pretest knowledge score of adolescent girls and selected demographic variables.

2. CONCEPTUAL FRAMEWORK ADOPTED FOR THE STUDY

Conceptual framework adapted for the study was based on Bertalanffy's theory.

2.1 Output

In the present study evaluation of effectiveness of PTP on selected aspects of reproductive health is the output that may also be regarded as the product of the process. This is achieving

through a comparison between mean pretest and mean post knowledge score of the subjects. The output decides the modification to be done at the input and processing levels. The increased post test score are an indication of effectiveness of PTP.

2.2 Feedback

It is the process that provides information about the systems output and its feedback as input. Accordingly the higher knowledge score obtained by adolescent hostelite girls in the post test indicate that PTP is effective in increasing the knowledge of adolescent hostelite girls on selected aspects of reproductive health. A low score in post test indicates the need for repeating or modifying the PTP or evaluating the inputs like administration of teaching, setting, sample or predetermined influence of factors within the adolescent hostelite girls. The investigator has not assessed the feedback in this study.

2.3 Environment

The environment in the present study is the residential school and setting, information received from, parents, relatives, friends, teachers, health personnel and influence of mass media on adolescent girls [15].

3. MATERIALS AND METHODS

An evaluative research approach was found to be suitable to evaluate the effectiveness of planned teaching programme on selected aspects of reproductive health. In this study pre experimental one group pretest- posttest design was used to answer the hypotheses and to find out the relationship between the independent variable and dependent variables. On day one, a pretest was given in the form of a knowledge questionnaire on selected aspects of reproductive health. On day two, planned teaching programme was administered. After one week, a post test was administered to assess the gain in knowledge using the same structured knowledge questionnaire. In the present study the independent variable is planned teaching programme on selected aspects of reproductive health. dependent variable is knowledge level of adolescent girls on selected aspects of reproductive health. extraneous variables are age, religion, year of school programme, place of residence, educational status of mother and source of information. In this study the sample size consists of 50 adolescent girls, who are

studying in school. The selection of sample largely depend upon their availability, for selection of sample, the purposive sampling technique was used. In this study the investigator used research tool as demographic proforma, and a structured knowledge questionnaire regarding reproductive health was felt to be appropriate to assess the knowledge level of the adolescent girls.

4. RESULTS AND DISCUSSION

The data was processed and analyzed on the basis of the objective and hypothesis formulated for the present study. The collected information was organized, tabulated, analyzed and interpreted by using descriptive and inferential statistics.

4.1 Description of Sample Characteristics

Demographic proforma containing samples characteristics would be analyzed by using frequency and percentage.

4.1.1 Assessment of knowledge of adolescent girls regarding selected aspects of reproductive health

The level of knowledge of adolescent girls, regarding reproductive health will be analyzed in terms of mean and standard deviation.

4.1.2 Effectiveness of planned teaching programme

Effectiveness of planned teaching programme would be analyzed by computing the mean, standard deviation and paired 't' test.

4.1.3 Association between pretest knowledge score and selected demographic variables

The association between the pre test knowledge score and selected demographic variables would be analyzed by using chi square test.

4.2 Major Findings of the Study

4.2.1 Sample characteristics

- Majority (37.0%) of the subjects were in the age group of 17 years
- Highest percentage (45.0%) of the subjects were studying in plus one
- Most of the subjects (69.0%) were belonged to Hindu religion

- Majority of the subjects (70%) were from urban area
- Highest percentage (42%) of participant's mothers had Pre degree/PUC education,
- Most of the subjects (35%) got information from teachers.
- most of the samples (49%) having irregular menstruation.

4.2.2 Knowledge of adolescent girl regarding selected aspects of reproductive health

1. In the pre test 55 % of the adolescent girls' attained average knowledge score and 47 % attained poor knowledge score and no one had good knowledge score. After post test (99.0 %) of the adolescent girls secured very good knowledge score and the remained subjects (3 %) secured good knowledge scores.
2. The result showed that the mean post test knowledge score ($\bar{X}_2 = 35.00$) was higher than the mean pre test knowledge score ($\bar{X}_1 = 16.43$).

Section-III: Effectiveness of planned teaching programme.

The mean post test knowledge score in all the areas were higher than the mean pre test knowledge score. Calculated t' value ($t_{49} = 35.00$) were significantly higher than the table value. ($t_{49} = 1.780; P < 0.05$), which showed that planned teaching programme was effective in increasing the knowledge of adolescent girls.

Section-IV: Association between pre test knowledge score of adolescent girls regarding selected aspects of reproductive health and selected demographic variables:

- There was a significant association between pre test knowledge score and age of the subjects ($\chi^2_{cal} = 21.13; p < 0.05$) at 0.05 level of significance.
- There was a significant association between pre test knowledge score and year of school programme of the subjects ($\chi^2_{cal} = 17.288, p < 0.05$) at 0.05 level of significance.
- There was no association between pre test knowledge score and religion of the subjects ($\chi^2_{cal} = 0.995, p > 0.05$) at 0.05 level of significance.
- There was no association between pre test knowledge score and place of residence of the subjects ($\chi^2_{cal} = 1.691, p > 0.05$) at 0.05 level of significance..

- There was no association between pre test knowledge score and duration of hostel stay of the subjects, (χ^2 cal=5.471, $p>0.05$) at 0.05 level of significance.
- There was no association between pre test knowledge score and educational status of mother (χ^2 cal=2.981, $p>0.05$) at 0.05 level of significance.
- There was no association between pre test knowledge score and source of information of the subjects (χ^2 cal=1.750 $p>0.05$) at 0.05 level of significance.

4.2.3 The following conclusions were drawn on the basis of the findings of the study

1. Overall pre test knowledge about selected aspects of reproductive health was poor, there was a need for planned teaching programme on selected aspects of reproductive health.
2. In this study planned teaching programme was found to be effective in improving the post test knowledge score on selected aspects of reproductive health among adolescent hostelite girls in selected schools.
3. The mean pre test scores of the subjects were lower than the mean post-test knowledge scores.
4. An area wise mean percentage of pre test post test score of selected aspects of reproductive health were computed and it indicated an actual improvement in all the area of selected aspects of reproductive health.
5. Pre test knowledge scores shows that 46.00 % of the subjects had poor knowledge score, 54.00 % secured average, and post test scores shows that 98 % secured very good knowledge score, 2 % attained good knowledge score.
6. There was a significant association found between the knowledge of adolescent girls and selected demographic variables such as age and year of study.

5. NURSING IMPLICATIONS

5.1 Nursing Practice

The nursing manpower functions in a variety of settings. The school health nurse, the nurse employed at any institutional settings, in an industrial set up or in the public health field is all required to identify the health needs of people of

our country. To reach a larger group of people colleges are the medium to promote reproductive health awareness. The midwifery nurses who are the backbone of maternal and child health services should be well educated regarding selected aspects of reproductive health. She should also inform about how to manage the difficult situation that could be raised during the developmental period. Thereby teaching programme helps them to adjust themselves with the developmental changes, improves healthy hygienic practices and also will be helpful for them to take proper management for dysmenorrhoea. So that the incidence of undue anxiety, fear and school absenteeism can be avoided and morbidity can be reduced.

5.2 Nursing Research

It was observed that in India, the nurse researchers have conducted very few studies that include selected aspects of adolescent reproductive health. The studies have mainly focused on pubertal changes, menstrual aspects to name few. These studies have revealed that there is inadequate knowledge among the adolescent girls regarding selected aspects of reproductive health.

The present study explains that adolescent girls have lack of knowledge regarding selected aspects of reproductive health. From the recommendations of current study it is eminent that there is a dire need for the nurse researcher to carry out an extended and intensive nursing research in this area. Nurse researcher can think of creative ideas to conduct health teaching on puberty and menstruation, to explore the negative attitudes. Myths that are followed in the society and can help the girls to overcome from these problems, and to cope positively with these changes.

5.3 Nursing Education

It is essential in the wake of recent statistics related to morbidity, and mortality among the young girls that nursing educational programs include the theoretical and practical aspects of adolescent reproductive health and prepares the aspiring professionals to function efficiently and effectively. The nurses should be prepared to function in institutional set up for promoting optimal wellbeing of the adolescent girls. The same should be applicable to preparing nurses at higher levels of nursing education also.

Nurses would be required to do more in depth client education on self-care practice during menstruation. Curriculum should be a way to prepare the students to help the clients in developing self-care potential. The curriculum should include more content on aspects of reproductive health, which includes puberty, menstruation and dysmenorrhea should be emphasized in nursing training period. Student nurses should be encouraged to give health education to the adolescents regarding reproductive health aspects mainly on pubertal changes menstruation and hygienic practices and prepare adolescent to accept the developmental changes and to adjust themselves. The health education materials prepared for the present study can be utilized by the nursing students in educating school children in future. By adopting different strategies like lecture cum discussion, simulation, role play demonstrations, the health information can be disseminated effectively.

5.4 Nursing Administration

In spite of advancement in science and technology in India, people suffer from various health problems and this may leads to anxiety and depression among the young generation. The root cause for these health problems is people's unawareness and ignorance regarding health. Nursing administration must awaken to the fact that adolescent education is a necessity and should provide resources in terms of manpower, money and material. Nurse as an administrator has a role in planning the policies for imparting the health information to the target population. In collaboration with education department nursing administrators should make sure that periodic in service education programmes are conducted for students and staff nurses for upgrading the knowledge regarding selected aspects of reproductive health.

The expanded and extended roles of the professional nurses can provide facilities to improve knowledge regarding reproductive health. There should be provision for nurses to devote time for giving health education regarding reproductive health in the colleges. Necessary administrative support should be encouraged. A college and hostel policy should be adopted to provide health education or written information to all the students who are in the adolescent period. Health education materials such as models, pamphlets should be made available to the schools.

5.5 Assumptions

- Adolescent girls will have some knowledge regarding selected aspects of reproductive health.
- Planned teaching programme may enhance the knowledge of adolescent girls regarding selected aspects of reproductive health.

6. CONCLUSION

Health promotion in this age range is largely focused on health education and guidance. A increasing body of evidence suggests that the most successful teen health promotion activities incorporate many systems. It implies that interventions that integrate programme knowledge from health care, school, and community-based settings can successfully improve the health of adolescents. The purpose of this study was to determine the efficacy of a structured teaching programme on chosen areas of reproductive health among teenage females in selected colleges in the Trivandrum region.

7. LIMITATIONS

1. The study was conducted in selected residential schools among only hostelite student.
2. Sample was selected only from one institution; hence generalization can only be made for the selected sample.
3. The study was delimited to girls who are in the age group between 12-14 yrs.
4. The study did not use control group. The investigator had no control over the events that took place between pre test and post test.

8. SUGGESTIONS

1. Nurses should plan and organize health programme to educate adolescent girls regarding selected aspects of reproductive health.
2. Awareness programme to be arranged in various school regarding selected aspects of reproductive health among adolescent girls.
3. Counseling and guidance facilities could be probed by the experts to the adolescent girls who need them.

9. RECOMMENDATIONS

1. Similar study can be carried out on larger samples for broader generalization.
2. A case study may be conducted on quality of life among adolescents girls.
3. A descriptive study could be conducted to assess the attitude of mothers on preparation of adolescent girls for menarche.
4. A similar study can be conducted among orphan girls to assess the knowledge on selected aspects of reproductive health.
5. A comparative study may be conducted to assess the knowledge, belief and practice on menstrual hygiene among adolescent girls.
6. An intervention programme can be conduct the effectiveness of mind body therapy to reduce the premenstrual syndrome.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

Obtained from Institutional ethical committee.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Song EY, Print BE, McNamara J, Colwell B. A meta-analysis examining effects of school sexuality education programs on adolescents' sexual knowledge. J Sch Health. 2000;70 (10): 413-16.
2. George M. An evaluative study of planned teaching programme on menstrual hygiene developed for adolescent girls based on learning needs in selected school of udupi district, unpublished master thesis, MAHE University;1999.
3. Abdella Eugene L. Better patient care through nursing research. Isted, London Macmillan Publishing Company;1979.
4. Treece EW, Treece EW. Elements of research in nursing, Philadelphia, Mosby Company;1998.
5. Burns N, Grove SK. Understanding Nursing Research., 4th ed. Elsevier publications. 2007;340
6. Krishnan KG. A study to assess the knowledge of the adolescents on risk factors related to oral cancer. Nightingale Nursing Times. 2008;3(10):31-2.
7. Sequeira SJ. Are adolescent girls in urban slums empowered with reproductive health information?. Nightingale Nursing Times 2009;5(8):28-30.
8. Khanna A. Menstrual practices and reproductive problems. Journal of Health Management 2000; 7(1): 91-107.
9. Banikarim C, Chacko MD, Kelder SH. Prevalence and impact of dysmenorrhoea on Hispanic female adolescents. Arch PediatrAdolesc Med 2000;154.1226-29.
10. Polit DF, Hungler BP. Nursing research, principles and methods. 6thed. Philadelphia. J.P. Lippincott Company, 1999.155-96
11. Basavanthappa BT. Nursing Research. Jaypee brothers. New Delhi;1998
12. George JB. Nursing theories, the base for professional nursing practice.5thed. New Jersey person education.2002.144-7.
13. Janet Houses, Nursing Research, Reading using and creating evidence. <http://nursing.Jb Pub.com / nursing research>. 135-36.
14. Brockopp DY. Tolsma MT. Fundamentals of nursing research . 3rd ed. Jones and Bartlett publications.518.
15. Nwaorgu OC, Onyeneho NG, Okolo M, Obadike E, Enibe G. Reproductive health knowledge and practices among junior secondary school grade one students in Enugu State: threat to achieving millennium development goals in Nigeria. East African Journal of Public Health. 2008;5(2):126-32.

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