



IMPACT OF REPRODUCTIVE HEALTH EDUCATION ON URBAN ADOLESCENTS; AN INSTITUTE BASED INTERVENTION TRAIL

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ABSTRACT

BACKGROUND: Understanding the knowledge, practices, and problems related to menstruation and reproductive health, will help in planning programs for this vulnerable group. There is a need that the information regarding reproductive health issues should be made available to adolescents, so that they can make informed and responsible decisions. The present study was carried out with an aim to assess the knowledge of adolescent girls regarding menstruation, pregnancy, contraception and sexually transmitted diseases. To impart reproductive health education through various health education models and to study the effect of a health education program in terms of improvement of knowledge.

MATERIALS AND METHODS: An Institute based Cross sectional study was done among 100 Intermediate (11th and 12th standard) students of a Government Junior college among 100. Among the 100 students enrolled for the study, 91 were available for the post test.

RESULTS: The mean age of the study was 16.98 ± 0.98 years. Among the study majority 39% belong to 16 years and 34% belong to 17 years. Around 7.7% still had poor knowledge regarding marriage, pregnancy and contraception when compared to 14% before intervention. Around 6.6% still had poor knowledge regarding sexual transmitted diseases when compared to 25% before intervention.

CONCLUSION: Reproductive health education is the need of hour. According to local situations other models of education could be implemented but health education should be made compulsory in schools by government with the help of health professionals.

KEYWORDS : Adolescent, Contraception, Pregnancy, Reproductive health, Sexually transmitted diseases

INTRODUCTION:

World Health Organization (WHO) defines adolescents as individuals aged 10-19 years. In India, they account for 20 p.c of the total population.¹ Around 1 in 6 persons in the world is an adolescent; that is 1.2 billion people aged, 10 to 19.² Adolescence is a crucial developmental stage marked by a confluence of physical, biological, psychological and social challenges.^{3,4,5}

During this phase of growth, the girls first experience menstruation and proper hygiene is necessary as improper hygiene may lead to menstrual problems and it may adversely affect the daily routine and quality of life.⁶ The knowledge and practices related to use of sanitary protection during menstruation is a vital aspect of health education. Although menstruation is a natural process, it is linked with several misconceptions and practices, which sometimes result in adverse health outcomes.⁷ Understanding the knowledge, practices, and problems related to menstruation and reproductive health, will help in planning programs for this vulnerable group.

Now a days changes in social values may lead to increased premarital sexual activity, pregnancy and possibly child bearing among unmarried girls, apart from the increasing incidence of abortion and STDs.^{8,9} One of the leading causes of death among 15-19 year old girls globally is complications

from pregnancy and childbirth. Around 11% of all births worldwide are to girls aged 15-19 years, and the vast majority of these births are in low- and middle-income countries.¹⁰

In Sustainable Development Goal three (SDG - 3) one of the specific target is by 2030, the world should ensure universal access to sexual and reproductive health-care services, including family planning, information and education, and the integration of reproductive health into national strategies and programmes. Better access to contraceptive information and services can reduce the number of girls becoming pregnant and giving birth at too young an age. Girls who do become pregnant need access to quality antenatal care. Where permitted by law, adolescents who opt to terminate their pregnancies should have access to safe abortion.¹⁰

Over 2.3 billion school age children spend one third of their time in schools. Schools therefore constitute a unique setting to help children and adolescents to develop a positive outlook on life and help them establish healthy lifestyles.¹¹ There are number of interventions which can help to improve health outcomes in young people (ages 10-24), but there is no single action or intervention which can work for all young people, to address all of their needs.¹²

There is a need that the information regarding reproductive health issues should be made available to adolescents, so

that they can make informed and responsible decisions. It would emphasize on the need to provide education to adolescents and organization working with adolescents to make them aware of their rights and responsibilities for their own personal health care, and to encourage them to demand for reproductive health education that would meet their particular needs and concern. Many studies were done regarding the reproductive health and found low level of knowledge among adolescents but only a handful studies try to intervene for improvement of knowledge among them.

The present study was carried out with an aim to assess the knowledge of adolescent girls regarding menstruation, pregnancy, contraception and sexually transmitted diseases. To impart reproductive health education through various health education models and to study the effect of a health education program in terms of improvement of knowledge.

MATERIALS AND METHODS:

An institute based cross sectional study was done among intermediate (11th and 12th standard) students of Government Junior college, Eluru, India during the period from 1st Jun 2018 to 31st Dec 2018. Based on a previous study among adolescents⁴, the estimated prevalence of knowledge regarding reproductive health among adolescents for the present study was taken as 30%. At 95% confidence interval, taking absolute precision 10%, Sample size calculated was 83.16 and final sample taken was rounded 100.

A predesigned, pretested and semi structured questionnaire was used to collect the data. Data entry and analysis was done by using SPSS 23 (trial version). In the institute, the total of 100 students were divided into 4 groups, each having 25 students. A comprehensive health education program was organized in six sessions for each group of students. Each session lasts for an hour. The education includes didactic lectures in the first three sessions followed by interactive (Socratic) two sessions and focal group discussion in the final session. The effect of the educational intervention was evaluated after a month following intervention with a post-test questionnaire. The pre-test and post-test questionnaire consists of 30 each. 15 questions in each test belong to knowledge regarding marriage, pregnancy and contraception and the other about Sexually transmitted diseases. Out of 15 questions in each part subjects answered above 10 were considered good, 6 - 10 average and 5 and below was considered poor knowledge to that subgroup.

Permission from the Institutional Ethical Committee was obtained from Alluri Sitarama Raju Academy of Medical Sciences, Eluru before conducting the study. The District Educational Officer (DEO) of West Godavari District was approached to obtain permission for conducting the study in the college. Assent and consent was taken from the students also who participated in the study. To ensure confidentiality, students were asked not to furnish their names.

Data from the proformas was entered in MS-Excel 2013 and was analysed using SPSS version 23 software (trial version) and p-value less than 0.05 was considered as statistically significant.

RESULTS:

The mean age of the study was 16.98 ± 0.98 years. Among the study majority 39% belong to 16 years and 34% belong to 17 years. Among 100 students enrolled for the study 91 were available for the post test.

Table 1: Age distribution of the students

Age (years)	Number	%
16	39	39
17	34	34

18	17	17
19	10	10
Total	100	100

In the pre-test regarding marriage, pregnancy and contraception 27%, 59%, 14% had good, average and poor knowledge respectively. After the health education intervention the knowledge level increased from 27% to 52.7%. Only 7.7% still had poor knowledge regarding marriage, pregnancy and contraception when compared to 14% before intervention as shown in table 2 & 3.

Table 2: Pre-test results (n = 100)

Knowledge level	Marriage, pregnancy and contraception	STDs
Good	27 (27%)	16 (16%)
Average	59 (59%)	59 (59%)
Poor	14 (14%)	25 (25%)
Total	100	100

Table 3: Post-test results (n = 91)

Knowledge level	Marriage, pregnancy and contraception	STDs
Good	48 (52.7%)	44 (48.3%)
Average	36 (39.6%)	41 (45.1%)
Poor	7 (7.7%)	6 (6.6%)
Total	91	91

In the pre-test regarding sexual transmitted diseases 16%, 59%, 25% had good, average and poor knowledge respectively. After health education intervention the knowledge level increased from 16% to 48.3%. Only 6.6% still had poor knowledge regarding sexual transmitted diseases when compared to 25% before intervention as shown in table 2 & 3.

Out of the 15 questions regarding marriage, pregnancy and contraception the 50th percentile median correctly answered were 9 in pretest and in posttest it was 11. There was a significant association between improvement of knowledge regarding Marriage, pregnancy and contraception as shown in table 4 (p < 0.05).

Out of the 15 questions sexual transmitted diseases, the 50th percentile median correctly answered were 7 in pretest and in posttest it was 10. There was a significant association between improvement of knowledge regarding sexual transmitted diseases as shown in table 5 (p < 0.05).

Table 4: Comparing the Knowledge regarding marriage, pregnancy and contraception scores (N=91)

	Minimum	Maximum	Percentiles		
			25th	50th (Median)	75th
Pre test	4	12	7	9	11
Post test	5	14	8	11	12
Wilcoxon Signed Ranks test Z = -8.551, p-value = 0.000					

Table 5: Comparing the Knowledge regarding STDs scores (N=91)

	Minimum	Maximum	Percentiles		
			25th	50th (Median)	75th
Pre test	4	12	5	7	8
Post test	5	15	8	10	12
Wilcoxon Signed Ranks test Z = -8.506, p-value = 0.000					

DISCUSSION:

Promoting healthy behaviour during adolescence, and taking steps to better protect young people from health risks are critical for the prevention of health problems in adulthood, and for countries' future health and ability to develop and thrive. Also in order to ensure universal access to reproductive health education for the adolescents the present study was emphasized on the need to create and support programs in the schools.

In the present study out of 100 enrolled students the mean was 16.98 ± 0.98 years and majority was of age group 16-17 years. Among 100 students enrolled for the study 91 were available for the post test. The mean studied was similar to studies conducted by Gothankaret al¹³, Mc Manus et al¹⁴, Rao RS et al¹⁷.

More than half of the girls (52%) were aware about emergency contraceptives in a study conducted by Gothankar et al., which was high when compared to the present study as the study was conducted among students belong to health sciences.¹³ Regarding knowledge related to marriage in Gupta et al., study 65.3% correctly answered and about contraception only 17.9% answered correctly, on average the combined knowledge regarding marriage, pregnancy and contraception was similar to the present study.¹⁵

In Bobhate et al., study regarding reproductive health 13.8% had poor knowledge and as age increases knowledge level also increases which was similar to the present study.¹⁶

Knowledge about the spread of HIV and safe sexual practices has a critical impact on the prevention of the acquired immunodeficiency syndrome (AIDS). Majority of the students had low level of knowledge regarding sexual transmitted diseases in study conducted by Mc Manus et al¹⁴ which was similar to the present study. Regarding knowledge related to STDs in Gupta et al., study 65.3% correctly answered and about contraception only 14.7% answered correctly which was almost similar to the present study.¹⁵

Sixty six percent of women had correct knowledge of modes of transmission of HIV while only 18.7% knew about safe sexual practices in a study conducted by Bobhate et al which was similar to the present study.¹⁶

A significant increase in overall knowledge after the intervention from 14.4 to 68%, $P < 0.01$ was observed regarding contraception in Rao RS et al¹⁷ which was similar to the present study. Knowledge regarding ovulation, pregnancy and fertilization improved by 37.2% ($P < 0.001$) in Rao RS et al¹⁷ which was similar to present study. In the study conducted by Padma Shetty et al., knowledge levels was significantly increased after intervention.

In various models health education strategies by Shetty Parwej et al., peer education strategy is less time consuming compared to conventional education but in conventional model the knowledge levels improved more than peer education.¹⁸

CONCLUSION:

Reproductive health education is the need of hour among adolescents. Suitable intervention models must analyzed among them for improvement of knowledge. Various combined models of education was implemented in the present study which showed a good results and acceptable to the students. According to local situations other models of education could be implemented but health education should be made compulsory in schools by government with the help of health professionals.

CONFLIT OF INTEREST: NIL

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