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Original Research Paper

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ADOLESCENT REPRODUCTIVE AND SEXUAL HEALTH (ARSH): KNOWLEDGE AND ATTITUDE OF THE ADOLESCENTS OF NAGPUR CITY

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ABSTRACT

Background: Adolescence is a highly turbulent period characterised by rapid growth and development. Limited knowledge about sexual and reproduction health, received from informal, unauthenticated sources can lead to disastrous consequences. Sex education was proposed to be an integral part of the secondary education in many parts of India. The proposal was strongly objected and had to be withdrawn from the school curriculum of the adolescents. **Objectives:** To assess the efficacy of workshop method for adolescent reproductive and sexual health education on knowledge and attitude among the adolescents of Nagpur city. **Research Design:** pre-experimental study. **Population:** Adolescents studying in 8th to 11th standard in schools of Nagpur city and their parents. **Sample Size:** 26 adolescents (13 in experimental study and 13 in control group) **Material for data collection:** Knowledge questionnaire and attitude scale developed by the investigator. **Intervention:** Workshop on various aspects of Reproductive and sexual health of the adolescents **Result:** The adolescents **from both the groups** were found to have inadequate knowledge (76.92%; 92.31% respectively) and (46.15%; 38.48% respectively) poor attitude towards ARSH before the intervention. The intervention of ARSH education through workshop was found effective in improving the knowledge and attitude of adolescents (p=0.000). **Conclusion:** The adolescents of Nagpur city have poor knowledge regarding ARSH and they also have poor attitude towards it. There is a need for educating the adolescents regarding ARSH so that they are better prepared for the future adult life.

KEYWORDS : Adolescent sexual and Reproductive health, knowledge, attitude

INTRODUCTION

The term adolescence comes from Latin word meaning "to grow to maturity". According to WHO persons in the age group of 10-19 years are called adolescents. Maximum physical, psychological, emotional and behavioural changes take place during this phase. Age-appropriate knowledge among youth and adolescents about the changes during puberty, sexuality, modes of transmission and prevention of sexually transmitted infections, HIV, and to maintaining a healthy and safe sexual life is important for the health and welfare. Most important is to make them aware of prevention of unwanted pregnancies and of HIV/AIDS.1

Adolescence is a significant period of transition in one's life. At this age one must have sex education in order to lead a healthy reproductive life, to prevent sexually transmitted disease and to avoid unwanted pregnancies. It is estimated that 21 million girls between the ages of 15-19 in developing countries become pregnant every year and 12 million give birth. The World Health Organization states that one in twenty adolescents has a STI per year.2

Onset of sexual activity during adolescence is common and may result from the physiological changes occurring in the body. However, young people experience significant barriers in accessing essential SRH information and services. As a result, they victims of poor SRH outcomes, including early and unintended pregnancy. Literature reports that adolescent girls aged 15–19 years have the lowest knowledge and use of contraception and the highest unmet needs. Approximately, 16 million adolescent girls give birth each year contributing significantly to morbidity and mortality. Low educational levels and resulting economic dependence are at disadvantage of girls and their families.3

Knowledge and practices regarding sexual and reproductive healthcare is the focus of Safe Motherhood Initiative. A few studies have investigated adolescent mothers' knowledge of sexual and reproductive health. But the number and outcome of these studies does not meet demands expressed by the above initiative. Research needs to focus on the knowledge and attitudes of adolescent girls as well as peer influences related to pregnancy and sexual and reproductive health among adolescents. Adolescence is a complex stage characterised by conflicts among responsibilities, independence and experimentation. Health and social problems may be extensive at this age. According to the World Health Organization, the main health issues among adolescents include early pregnancy, childbirth, HIV/AIDS, depression, violence, alcohol and drug abuse, intentional injuries, malnutrition, obesity, and tobacco use.4

Sexual and Reproductive Health (SRH) is a state of physical, emotional, mental, and social well-being in relation to sexuality. It is not merely the absence of disease, dysfunction, or infirmity in all matters relating to sexuality and the reproductive system. SRH rights include access to SRH care services. The SRH services should include but are not limited to information about sexuality, sexuality education, respect for bodily integrity, choosing own partner, deciding to be sexually active or not, consensual sexual relations and marriage, decision whether or not and when to have children and pursuing a satisfying and pleasurable sexual life. Adolescent SRH is inseparable from all aspects of adolescent health and is key to answer poverty issues and economic development. SRH services uniformly must contribute to preventing early child marriage, female genital mutilation and sexual violence and exploitation. The platform of SRH services should also include accessing family planning services, safe and legal abortions and comprehensive sexuality education for girls and boys. SRH problems are on rise due to increasing rates of sexual activity resulting in early pregnancies and Sexually Transmitted Infections (STIs).5

A cross-sectional study was conducted among 1,034 secondary school students in Malaysia using a self-administered validated questionnaire. Findings revealed that lack of knowledge regarding important aspects of sexual and reproductive health promt the need for sexual and reproductive health education.6

A study was conducted to assess the effectiveness of a peer-led education intervention in addressing sexual and reproductive health related knowledge and concerns among

young people in Kaduna and Kano States, northwest Nigeria. The basis for the study was assumption that social development among young people is largely influenced by their peers. Peer education is a proven and effective approach for promoting reproductive health among young people, especially for prevention of HIV/AIDS and other STIs. The study explored the knowledge of HIV/AIDS, sexually transmitted illnesses, contraception, and other reproductive health issues among young people. The use of peer-to-peer education was found effective in improving the knowledge of youth. The authors recommended peer-to-peer education to be encouraged and consistently adopted to improve knowledge of health issues among young people.7

A study in Kenya reported important gender differences in ASRH knowledge and behaviour. Male adolescents reported higher sexual activity and female adolescents reported higher HIV testing. Female adolescents had lower HIV/AIDS knowledge, yet they were more likely to translate into appropriate safe behaviour. Sex Education was found to be an important predictor of ASRH behaviour.8

OBJECTIVES

To assess the efficacy of workshop method for adolescent reproductive and sexual health education on knowledge and attitude among the adolescents of Nagpur city.

METHODS & MATERIAL

- **Research Design:** Pre-experimental study
- **Setting of the study:** Secondary Schools of Nagpur city
- **Population:** Adolescents both male and females in the age group of 13 to 18 years
- **Sampling Technique:** Purposive sampling
- **Sample Size:** 26 (13 in experimental group and 13 in control group)
- **Tools for Data Collection:** The tool for data collection was prepared by the investigator and is validated through this study.

The tool has three parts as under –

Part I: Demographic information (age, residence, religion, standard of education, parents education and occupation.

Part II: Knowledge questionnaire with 35 multiple choice items. The correct answer is scored as '1' and the wrong answer is scored with '0'.

Part III: Attitude towards ARSH scale. It is 25 items 4-point Likert scale with score ranging from 0 to 3 for each item. The lowest score is '0' and the highest score is '75'.

The tool is tested for interrater reliability. The Gutmann split half reliability coefficient for knowledge questionnaire is r=0.77 and that for the attitude scale is r=0.97

Method of data collection

The study is approved by the Institutional Ethics committee of DMIMS(DU). The adolescents were explained about the study after taking permission from their principals. All their doubts regarding confidentiality and the study information were clarified. A written informed consent was taken from the adolescents. They were then given the hard copies of the data collection tool. It took on an average 25 minutes for the participants to complete the tool. The data sheets were then coded and preserved under lock and key with access to only investigator and statistician.

Analysis of Data

The collected was presented in the tabular and graphic form. The analysis was done based on the objectives of the study.

RESULTS

Table 1: Distribution of participants according to their demographic variables

S. N.	Demographic Characteristics	Categories	Experimental Group		Control group	
			Freq.	Percentage	Freq.	Percentage
1	Age	A. 13-15	13	100	13	100
		B.16-18	0	0	0	0
2	Gender	A. Male	5	38.46	7	53.85
		B.Female	8	61.54	6	46.15
3	Standard	A.8th	13	100.00	10	76.92
		B.9th	0	0.00	3	23.08
		C.10th	0	0.00	0	0.00
		D.11th	0	0.00	0	0.00
4	Residence	A.Rural	0	0.00	0	0.00
		B.Urban	13	100.00	13	100.00
		C.SemiUrban	0	0.00	0	0.00
5	Residing with	A.Parents	13	100.00	13	100.00
		B.Friends	0	0.00	0	0.00
		C.Relatives	0	0.00	0	0.00
		D.Alone	0	0.00	0	0.00
6	Father's Education	A.Illiterate	0	0.00	0	0.00
		B.Primary	0	0.00	1	7.69
		C.Secondary	4	30.77	5	38.46
		D. Hr.Secondary	2	15.38	1	7.69
		E.Graduate	7	53.85	6	46.15
		F.Other	0	0.00	0	0.00
7	Mother's Education	A.Illiterate	0	0.00	0	0.00
		B.Primary	0	0.00	3	23.08
		C.Secondary	6	46.15	4	30.77
		D.Hr.Secondary	3	23.08	3	23.08
		E.Graduate	4	30.77	3	23.08
		F.Other	0	0.00	0	0.00
8	Father's Occupation	A.Unemployed	0	0.00	0	0.00
		B.Farmer	0	0.00	0	0.00
		C.Labourer	2	15.38	4	30.77
		D.SelfEmployed	1	7.69	3	23.08

		E.Pvt. Job	2	15.38	3	23.08
		F.Govt. Job	8	61.54	3	23.08
9	Mother's Occupation	A.Housewife	10	76.92	8	61.54
		B.Farmer	0	0.00	0	0.00
		C.Labourer	0	0.00	2	15.38
		D.SelfEmployed	1	7.69	2	15.38
		E.Pvt. Job	2	15.38	1	7.69
		F.Govt. Job	0	0.00	0	0.00
10	No. of Family Members	A.3-5	9	69.23	8	61.54
		B.6-9	2	15.38	4	30.77
		C.More than 9	2	15.38	1	7.69
11	No. of Siblings	A.Nil	0	0.00	0	0.00
		B. 1	10	76.92	8	61.54
		C. 2	2	15.38	3	23.08
		D. 3 & More	1	7.69	2	15.38
12	Birth Order	A.1	10	76.92	9	69.23
		B.2	2	15.38	3	23.08
		C.3	1	7.69	1	7.69
		D.4 & Above	0	0	0	0

The distribution of participants based on their demographic characteristics shows that the participants in the control and experimental group bear similar demographic characteristics. (Table 1)

Table 2: Distribution of participants according to level of knowledge regarding sexual health before intervention

Level of Knowledge	Score Range	Percentage Range	Experimental Group		Control group	
			Freq.	%	Freq.	%
Very Poor	1- 7	1 – 20	2	15.38	3	23.08
Poor	8 – 14	21 – 40	8	61.54	9	69.23
Satisfactory	15 – 21	41 – 60	3	23.08	1	7.69
Good	22 – 28	61 – 80	0	0	0	0
Very Good	29 – 35	81 – 100	0	0	0	0

The knowledge levels of participants in both the experimental as well as the control group is same. 92.33% of control group and 96.92% of the participants in the experimental group have unsatisfactory knowledge regarding reproductive and sexual health. (Table 2)

Table 3: Distribution of participants according to level of attitude regarding sexual health before intervention

Level of attitude	Score Range	Percentage Range	Experimental Group		Control Group	
			Freq.	%	Freq.	%
Poor	0-19	0-25	6	46.15	5	38.46
Average	20-38	26- 50	7	53.85	8	61.54
Satisfactory	39-57	51 - 75	0	0	0	0
Good	58-75	76 - 100	0	0	0	0

All participants from control group as well as experimental group have poor to average attitude towards reproductive and sexual health. (Table 3)

Table 4: Distribution of participants according to level of knowledge regarding sexual health in Post-test (O_2)

Level of Knowledge	Score Range	Percentage Range	Experimental Group		Control Group	
			Freq.	%	Freq.	%
Very Poor	1- 7	1 – 20	0	0	2	15.38
Poor	8 – 14	21 – 40	0	0	9	69.23
Satisfactory	15 – 21	41 – 60	9	69.23	2	15.38
Good	22 – 28	61 – 80	4	30.77	0	0
Very Good	29 – 35	81 – 100	0	0	0	0

After the intervention to experimental group the knowledge regarding reproductive and sexual health improved among the participants of experimental group to 69.23% satisfactory and 30.77% good. However, in the control group only 15.38% had satisfactory knowledge level. (Table 4)

Table 5: Distribution of participants according to level of attitude regarding sexual health in post-test (O_2)

Level of attitude	Score Range	Percentage Range	Experimental Group		Control Group	
			Freq.	%	Freq.	%
Poor	0-19	0-25	1	7.69	4	30.77
Average	20-38	26- 50	12	92.31	9	69.23
Satisfactory	39-57	51 – 75	0	0	0	0
Good	58-75	76 – 100	0	0	0	0

After the intervention to experimental group the attitude towards reproductive and sexual health improved among the participants of experimental group to 92.31% average. However, in the control group 69.23% had average attitude. (Table 5)

Table 6: Comparison of Means of knowledge and attitude before and after the intervention in Experimental Group

Variables	Test	Mean	SD	't'	'p'
Knowledge	Pre-test	11.85	4.26	5.097	0.000
	Post test	19.69	3.07		**S, p<0.05**
Attitude	Pre-test	19.62	4.87	5.849	0.000
	Post test	24.62	4.52		**S, p<0.05**

The comparison of means of pre-test and posttest after the intervention of workshop on reproductive and sexual health the knowledge and attitude of participants improved significantly (p=0.000) in experimental group. (Table 6)

Table 7: Comparison of Means of knowledge and attitude of pre-test and post-test in Control Group

Variables	Test	Mean	SD	't'	'p'
Knowledge	Pre-test	12.15	3.96	4.221	0.639
	Post test	14.90	3.81		NS, p>0.05
Attitude	Pre-test	20.01	4.87	6.749	0.268
	Post test	23.17	4.52		NS, p>0.05

The comparison of means of two observations for the knowledge and attitude of participants regarding reproductive and sexual health the knowledge in control group did not improve significantly (p>0.05). (Table 7)

DISCUSSION

The study aimed at assessing the efficacy of workshop method for adolescent reproductive and sexual health education on knowledge and attitude among the adolescents of Nagpur city.

The findings of the present study reveal that the participants in the control and experimental group bear similar demographic characteristics. (Table 1)

The knowledge levels of participants in both the experimental

as well as the control group are dissatisfactory (92.33% of control group and 96.92% of experimental group). (Table 2)

All participants from control group as well as from experimental group have poor to average attitude towards reproductive and sexual health. (Table 3)

After the intervention to experimental group the knowledge regarding reproductive and sexual health improved among the participants of experimental group to 69.23% satisfactory and 30.77% good. (Table 4)

After the intervention to experimental group the attitude towards reproductive and sexual health improved among the participants of experimental group to 92.31% average. (Table 5)

The comparison of means of pre-test and posttest after the intervention of workshop on reproductive and sexual health; the knowledge and attitude of participants improved significantly ($p=0.000$) in experimental group. (Table 6)

The comparison of means of two observations for the knowledge and attitude of participants regarding reproductive and sexual health the knowledge in control group did not improve significantly ($p>0.05$). (Table 7)

These findings are supported by the findings in following studies –

Randhir Kumar, Anmol Goyal , Parmal Singh, Anu Bhardwaj, Anshu Mittal, and Sachin Singh Yadav in their study in Ambala district on adolescents reported that there was substantial lacunae (93.5%) in the knowledge about reproductive and sexual health. The participating adolescents felt that sex education is necessary and should be introduced in the school curriculum.1

VK Siva, G Shiny Chrism Queen Nesan, Timsi Jain in their study at Chennai reported that 24.4% males and 32.4% females had knowledge related to sexual health, STDs and reproduction indicating school going adolescents lack knowledge and have varied perceptions towards sex education.2

Desiree Govender, Saloshni Naidoo and Myra Taylor in their study in South Africa, reported that out of 326 adolescents, 19.9% had experienced repeat pregnancies. Only 43.9% answered 50% or more of the knowledge questions on pregnancy and HIV/AIDS and STIs correctly, while 56.1% answered less than 50% of the knowledge questions correctly. The findings indicate that adolescents had deficient knowledge of pregnancy and sexual and reproductive health. Even with repeat pregnancies, the adolescents were poorly informed about pregnancy and sexual and reproductive health.4

Joseph Maaminu Kyilleh, Philip Teg-Nefaah Tabong and Benson Boinkum Konlaan in their study at Ghana reported that the participating adolescents had low levels of knowledge regarding reproductive health and that majority of them relied on their peers for information on sexual and reproductive health. Adolescents were found to engage in risky reproductive health choices which negatively affect their reproductive health.9

Simona Rondini and John Kingsley Krugu conducted a study among adolescents of the Bolgatanga community, in Northern Ghana, to learn about knowledge, attitude and practices of reproductive health. The findings reveal low familiarity of adolescents with family planning methods and HIV/AIDS transmission resulting in minimal contraceptive use. This in turn pose them at high risk for unwanted pregnancies and sexual infections transmission.10

CONCLUSION

Sex and reproductive health is influenced by many socio-cultural factors. Negative attitudes and poor knowledge put the adolescents at risk of STIs and unwanted pregnancy. It is recommended that sex education is necessary and should be introduced in the school curriculum. Innovative modes and methods are required to be used to formal delivery of sexual and reproductive health education. Workshop method of imparting ARSH education to adolescents was found effective in this study.

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