

Effect of Activity Based Adolescence Education on Awareness of Students Related to Adolescent Reproductive Health at Secondary Level

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Abstract: *This study was undertaken to study the effect of activity based adolescence education on awareness of secondary school students, basically boys and girls as well as rural and urban regarding adolescent reproductive health (ARH). The data was collected by self made standardized awareness test on ARH which seized sixty multiple choice test items with four responses in which one was correct. Experimental pretest-posttest equivalent group design was used in which out of 204 students 102 were selected in control and 102 in experimental group from two different schools. Pre-test was administered in both the groups followed by intervention through different kind of activities to experimental group whereas control group was taught in conventional way. After the intervention, post-test was administered in both the groups. Pre-test and post-test scores were calculated and analysed by mean, standard deviation and t-test. Result revealed that there was significant difference between mean gain scores of experimental and control group on awareness and no significant difference between boys and girls as well as rural and urban adolescents with regard to awareness on adolescent reproductive health when taught through activity based teaching method.*

Keywords: *Activity based method, Adolescence education, Adolescent reproductive health, Awareness.*

I. INTRODUCTION

The World Health Organization (WHO) defines adolescence as the second decade of life, between the ages of 10 and 19 years whereas youth refers to period between 15 and 24 years age group. Their growth phases can be demarcated as early adolescence (10-13 years), middle adolescence (14-16 years) and late adolescence (17-19 years). India is home to more than 243 million adolescents, who account for almost 20% of the country's population. In the present day, every fifth person in India is an adolescent belongs to 10-19 years and every third a young person belongs to 10-24 years (*Census, 2011*). This huge number itself is a big challenge to address the problems and issues of all adolescents.

Adolescent Reproductive Health (ARH) is a major area of concern as the adolescents do not have adequate knowledge and awareness about these. The chances of having Sexually Transmitted Infections (STIs), Reproductive Tract Infections (RTIs), Human Immunodeficiency Virus (HIV), teenage pregnancy, unsafe abortions, and drug abuse are much higher among adolescents. In India, although traditional norms oppose premarital sex but in a growing trend there are premarital sexual activities among adolescents have also been seen. The adolescents need to know how to protect themselves from these and also should have means to access the adolescent friendly health services.

Now a day's different teaching methodologies are being discovered. Teachers need to choose the most effective methodology for their students. Therefore, for that affair activity based teaching is more effective than other methodologies. This teaching method describes a range of pedagogical approaches for teaching. Its core premises include the requirement that learning should be based on doing some hands on experiments and activities. The idea of activity based teaching is rooted in the common notion that children are active learners rather than passive recipients of information. If child is provided the opportunity to explore by their own and provided an optimum learning environment then the learning becomes joyful and long lasting (Thakur, 2016). In

activity based teaching, the student becomes more actively involved in the learning process through acts of doing, being and critically reflecting than in traditional, didactic education that is more centred around the passive act of knowing (McGrath, & MacEwan, 2011).

The philosophy of activity based teaching finds its antecedents in the common notion that learning can be done best when it is initiated by the surrounding environment and motivated by providing optimum opportunities to learn. A fearless and freedom to express environment always adds to best learning outcomes. It develops self learning skill among the learners and allows them to study according to his or her skill. This method is student centered learning that is taught through many different activities. Activities here can be in the form of group discussions, cooperative learning, exhibition, debate, Quiz contest, role play, question box and report making to teach adolescent reproductive health. The National Curriculum Framework (2005) which advocates that at the secondary stage, students should be engaged in learning science as a composite discipline, in working with hands and tools to design more advanced technological modules than at the upper primary stage, and in activities and analyses on issues concerning the environment and health, including reproductive and sexual health.

1. Rationale of the study

Adolescents lack the services that respond to their distinctive needs. To avoid reproductive health related problems there is a need to have a multidimensional approach. So adolescents must be involved in different programs based on activity based methods. The National Curriculum Framework (2005) accounted that at the secondary stage, students should be engaged in learning science as a composite discipline, in working with hands and tools to design more advanced technological modules than at the upper primary stage, and in activities and analyses on issues concerning the environment and health, including reproductive and sexual health. In the present study researcher made a scientific attempt to intervene through activity based teaching on adolescent reproductive health among the adolescent learners regarding awareness. Many studies on this had been taken up and in the West Bengal context an effort was made to find out the effect of activity based adolescence education on awareness related to adolescent reproductive health of students at secondary level.

2. Statement of the problem

The present study was stated as

“Effect of activity based adolescence education on awareness of students related to adolescent reproductive health at secondary level”.

3. Conceptual framework

3.1. Adolescence education

Adolescence education is an educational response to the needs, concerns and realities of adolescents. It empower young people with accurate, age appropriate and culturally relevant information, promote healthy attitudes and develop skills to enable them to respond to real life situations in positive and responsible ways.

3.2. Activity based teaching

Activity based teaching describes a range of pedagogical approaches adopted by a teacher in which the students participate thoroughly and bring about efficient learning experiences through different activities.

3.3. Adolescent reproductive health

Adolescent reproductive health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system of people between the ages of 10 and 19.

4. Objectives

1. To study the effect of activity based adolescence education on awareness of secondary school students regarding adolescent reproductive health.
2. To find out the effect of activity based adolescence education on awareness of boys and girls related to adolescent reproductive health.

3. To study the effect of activity based adolescence education on awareness of urban and rural school students regarding adolescent reproductive health.

5. Hypotheses

1. Activity based adolescence education would have positive effect on awareness of secondary school students regarding adolescent reproductive health.
2. The effect of activity based adolescence education on awareness of boys would be more than girls regarding adolescent reproductive health.
3. The effect of activity based adolescence education on awareness of urban students would be more than rural regarding adolescent reproductive health.

6. Delimitations of the study

The study was delimited to 204 students of class IX from two schools one from urban (Malda Railway High School) and another from rural (Santa Debya High School) belong to the West Bengal Board of Secondary Education (WBBSE) at Malda in West Bengal.

II. REVIEW OF RELATED LITERATURE

The majority of students in schools are unable to make connections between what they are learning and how that knowledge will be used. But in case of activity based teaching learning method students are engaged in the learning processes in which learning activities stand on the real life experience. It helps learners to transform knowledge or information into their personal knowledge which they can apply in different situations. Khan et al. (2012) revealed in their study that the activity based teaching was more effective for the development of higher order skills among the students. Paul, Roy, and Gangopadhyay (2013) found that activity based teaching method was more effective than chalk and talk method to teach Life Science in the class room situation. Similarly Shah, and Rahat (2014) found that the activity based teaching was much effective than the lecture method teaching of science, furthermore there was significant difference between the performance of the experimental group as compared to the control group with reference to knowledge, comprehension, application skill. On the other hand Svanemyr et al. (2015) showed that through the intervention programme adolescents developed their better knowledge in the field of reproductive health. Finding also goes along with the finding of Gontijo et al. (2016) who showed that that immediately after the intervention by educative activities such as puzzles, storytelling, mime and board games the adolescents' increased knowledge of sexual and reproductive health related information.

It had been viewed that as compared to boys, girls had much poorer knowledge about reproductive health. Whereas result obtained by Deshmukh, Kulkarni, and Apte (2014) which showed that by using educational intervention programme both the boys and girls of rural as well as urban areas improved knowledge and awareness regarding reproductive health. Rani, and Rao (2015) revealed poor knowledge regarding reproductive health issues among adolescent girls in both rural and urban areas therefore, there was urgent need to intervene in early adolescent period by imparting knowledge on reproductive health. Similarly Kalkute et al. (2015) in their pre-post-intervention study found that students from nuclear families had "adequate" knowledge about sexual health when compared to students from joint families, but no significant relation was seen between high and low socio-economic status students' score concerning their knowledge and awareness in relation to sexual health. Abiodun, Olu-Abiodun, Ani, and Sotunsa (2016) found that the sexual reproductive health (SRH) knowledge of in-school rural adolescents was fair but some misconceptions exist. Due to the intervention design there was massive increased of awareness on SRH issues; correct conceptions about fertility, physiologic changes of adolescence, contraception, STIs and HIV/AIDS. But the finding was in incongruity with the study of Susanto, Rahmawati, and Wantiyah (2016) who found that after the intervention, the adolescents in the urban area obtained higher scores on adolescent reproductive health knowledge than those in the rural area.

III. METHODOLOGY

The present research was a true experimental type study in which pretest-posttest equivalent group design was used.

1. Sampling

The present study, 204 students selected from two different schools and out of 204 students 102 were selected in control and 102 in experimental group.

2. Tool

The tool used for this study was self made awareness test related to adolescent reproductive health.

For awareness test, researcher employed self-made questionnaire form. It included 60 multiple choice test items with 4 responses based on the topics like process of growing up, physical growth and development, socio cultural development and gender roles, drug abuse, basic information, prevention as well as control about HIV/ AIDS/ STD. The items were standardized by establishing content validity and test-retest reliability co-efficient (0.82) as well as split half reliability co-efficient (0.89). In support of scoring, one mark for each correct response and zero for wrong response was considered.

3. Procedure of data collection

For collection of data pretest-posttest equivalent group design was used followed by one-to-one matching procedure in which students' school achievement scores of Biology had been undertaken.

4. Pre-test

In the beginning, the tests on awareness related to adolescent reproductive health were administered on both the experimental and control group as pre-tests.

5. Treatment

The experimental group was exposed to the activity based classroom environment related to the topics of adolescent reproductive health. In one month treatment period, researcher used various kinds of activities. It included working in groups, hands-on-experience, group discussions cooperative and collaborative learning, exhibition, debate, quiz contest, role play, question box and report making. After completion the tasks the students of experimental group was put forth with some questions leading to discussion with others students and the researcher. The control group was taught the same topics by conventional method of teaching.

6. Post-test

After the transaction of 20 lessons, awareness test was again administered on both the groups as the post test.

7. Statistical techniques used

The responses of the students for the pre-tests and post-tests were scored by the own standardized procedure of researcher and the results of the experimental and control group were computed and analysed through application of required statistical techniques i.e. mean, standard deviation and *t* test.

IV. ANALYSIS AND INTERPRETATION

1. Hypothesis 1

In order to test hypothesis, gain scores of awareness regarding adolescent reproductive health between the pre-test and post-test of experimental and control group were calculated by subtracting pre-test scores from post-test scores for each student.

Table 1: Mean, standard deviation and *t* value of gain scores on awareness of experimental and control group.

Experimental Group			Control Group			<i>t</i> value
M_1	N_1	SD_1	M_2	N_2	SD_2	
28.68	102	4.07	4.85	102	3.94	44

Table 1 shows that the mean gain score of experimental group is higher than control group. The obtained *t* value confirms 44 which is greater than the table *t* value 2.60 for 202 degrees of freedom at 0.01 level of significance. Hence, the hypothesis is accepted. This indicates that there is significant difference between mean gain scores of experimental and control group on awareness related to adolescent reproductive health. It is thus

concluded that activity based teaching strategy helped in improving awareness towards adolescent reproductive health.

2. Hypothesis 2

In order to test this hypothesis, gain scores of boys and girls on awareness regarding adolescent reproductive health between the pre-test and post-test of experimental group were calculated by subtracting pre-test scores from post-test scores for each student.

Table 2: Mean, standard deviation and *t* value of gain scores on awareness of boys and girls of experimental group.

Experimental Group						<i>t</i> value
Boys			Girls			
M_1	N_1	SD_1	M_2	N_2	SD_2	
28.75	56	4.12	28.59	46	4.06	0.20

Table 2 shows that the mean gain score of boys is slightly higher than the girls and the obtained *t* value shows 0.20 which is less than the table *t* value of 1.98 for 100 degrees of freedom at 0.05 level of significance. Hence, the hypothesis is rejected. Therefore, there is no significant difference between boys and girls with regard to awareness on adolescent reproductive health when taught through activity based teaching method.

3. Hypothesis 3

In order to test this hypothesis, gain scores of urban and rural students on awareness regarding adolescent reproductive health of both experimental groups were calculated by subtracting post-test scores of urban with post-test scores of rural for each student.

Table 3: Mean, standard deviation and *t* value of gain scores on awareness of urban and rural adolescents of experimental group.

Experimental Group						<i>t</i> value
Urban			Rural			
M_1	N_1	SD_1	M_2	N_2	SD_2	
28.98	55	4.12	28.32	47	4.03	0.82

Table 3 shows that the mean gain score of urban students is slightly higher than the rural and the obtained *t* value shows 0.82 which is less than the table *t* value of 1.98 for 100 degrees of freedom at 0.05 level of significance. Hence, the hypothesis is rejected. Therefore, there is no significant difference between urban and rural students with regard to awareness on adolescent reproductive health when taught through activity based teaching method.

V. MAJOR FINDINGS

1. Activity based adolescence education had positive effect on awareness of students regarding adolescent reproductive health. This indicated that there was significant difference between mean gain scores of experimental and control group on awareness test related to adolescent reproductive health.
2. The effect of activity based adolescence education did not show any differences on awareness of boys and girls regarding adolescent reproductive health. There was no significant difference between boys and girls with regard to awareness on adolescent reproductive health when taught through activity based teaching method.
3. The effect of activity based adolescence education on awareness of urban students was comparable with rural students regarding adolescent reproductive health. There was no significant difference between urban and rural students with regard to awareness on adolescent reproductive health.

VI EDUCATIONAL IMPLICATIONS

- By adopting activity based classroom environment strategy, the teacher can develop a better method of attaining scientific concepts which is the basic to content mastery.
- In the activity based teaching, more interaction and better relationships can be established between students and teachers.
- Activity based teaching learning can be implemented in schools for all subjects to improve school effectiveness.
- School administration has to encourage and promote the teachers to use child-centred approaches of learning in the classroom i.e. providing opportunities and appropriate resources for activity based teaching.

VII CONCLUSION

Traditional methods of teaching could never develop plan effective foundation for critical thinking and understanding for the students. They could learn more when learning became personal and it was only possible by means of activity based classroom environment. Through activity based classroom environment the learners would be able to construct their own concept and find their own solutions to their problems. In school curriculum there are some topics such as Reproduction in animals and human, and Reaching the age of adolescence, students feel hesitation to ask their queries but owing to application of activity based classroom environment strategy this type of situation could be controlled better.

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