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Empowering of oromieh university female students in related to their sexual and reproductive health by peer education method

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ABSTRACT

Young people themselves have brought attention to the realities that threaten their reproductive health daily. Researches suggest that people are more likely to hear and personalize messages, and thus to change their attitudes and behaviors, if they believe the messenger is similar to them and faces the same concerns and pressures. Thus peer education method may be an effective method for training of young people. This interventional study aimed to empower of a group of university female students in relation to their sexual and reproductive health by peer education method. Study was carried of in Oromieh University that be comforted in Oromieh city on west south of IRAN. First of all, sexual and reproductive health knowledge level and needs of students were detected and based on these findings, were designed an educational and counseling model. Then students empowered in sexual and reproductive health matters by peer education method and the effectiveness of this method was assessed. A total of 381 female students who entered to university at 2006-2007, are taken in to the study. The data were obtained through a pretest and a post test questionnaire. For assessing of data in this study t-test, One-way Anova and Mcnemar test were used. The average score of students in questions about sexual and reproductive health concept and sexual and reproductive health problem in youth, Sexual organs and their structure and function, menstruation and pregnancy, Family planning concept and contraception methods and Genital tract infections, sexual transmitted disease, AIDS and preventive behavior was 13.66±8.84 before intervention and arrived to 24.29±9.12 after intervention ($P<0.05$). Most of students (72.8%) assessed the peer education methods as effective on their reproductive health enablement. This educational method increased the knowledge level and empowered the university female students in related to their sexual and reproductive health. Based on these finding, educating and counseling of university students in sexual and reproductive health matters via peer education method by health workers and teachers were proposed.

Key word: Sexual Health, Reproductive Health, Peer Education Method, University Students, Iran.

INTRODUCTION

Young people themselves have brought attention to the realities that threaten their reproductive health daily. Despite the concerns voiced by the United Nations, 180 member countries, international organizations, and individual adolescents everywhere, the RH concerns of young people are too often neglected (1). Young people constitute a significant proportion of the Iranian population (2). There is a rapid increase in age at first marriage and a widening window during which young people may engage in potentially risky premarital sexual activities (2, 3). Despite this trend, little is known about the reproductive health needs of young people in Iran. The few studies of the knowledge, attitude, beliefs and behaviors about sexual reproductive health of Iranian youth have demonstrated poor knowledge about reproductive health (3-11). It is the task of health researchers to identify the needs for reproductive health promotion and to plan and implement the necessary educational programs that might include prevention of STIs/HIV/AIDS and unwanted pregnancies. Sexuality and reproductive health education is an area that generate misconceptions, confusion, fear and unwarranted caution, to say the least. Teenagers often get their information from their peers who may be ignorant of the topic which may provide sensational and inaccurate information (6-11). Researches suggest that people are more likely to hear and personalize messages, and thus to change their attitudes and behaviors, if they believe the messenger is similar to them and faces the same concerns and pressures (12, 13). Numerous studies have demonstrated that their peers influence youth's health behaviors—not only in regard to sexuality but also in regard to violence and substance use. Peer education draws on the credibility that young people have with their peers, leverages the power of role modeling, and provides flexibility in meeting the diverse needs of today's youth (12, 14). Peer education can support young people in developing positive group norms and in making healthy decisions about sex (14, 15).

Peer education method may be an effective method for training of young people. Peer education method implies that youth themselves be involved in defining the problem, developing the programs, developing the materials, and implementing activities and the youth should also be involved in monitoring, evaluating and documenting results(16).

There have been very few evaluations of peer education programs. It is thus difficult to determine their effectiveness. Qualitative information indicates, however, that peer education and peer counseling are valuable assets to school health programs in countries all over the world. This is likely because peer groups increase in importance during adolescence; peer education allows youth to exchange information in colloquial language and can take advantage of any moment and place for teaching or counseling (17).

MATERIALS AND METHODS

This is an interventional study aimed to empower of a group of university female students in relation to their sexual and reproductive health, in order to identify the sexual and reproductive health needs of students, to design an educational and counseling model for them by peer education method in university. Assessing of educational and counseling model for empowering of students that is our research's main goal will doing with comparing of pre and post-test's results and scores.

Study was carried in Oromieh University that be comforted in Oromieh city on west Azerbayjan province of IRAN. Study population in this study is Oromieh University female students. The data were obtained through a pretest questionnaire that obtain SRH knowledge and some questions about the history of group working and desire to participate in this study as peer educators and a post test questionnaire that obtain SRH knowledge and some questions about the effectiveness of peer education models. SRH knowledge questionnaire were prepared based on scientific text related to reproductive and sexual health of youth (18, 19). Understandability of questionnaire's content was confirmed by three professore of Hacettepe University that would be in judge thesis committee and two associated professor of Oromieh University. Assessment of questionnaire's understandability was done by a pretest study with 20 female students in other university of Oromieh city (Azad University of Oromieh). First of all a questionnaire would be distributed in these classes and would be filled by undergraduate female students those are study in these department. This questionnaire determines knowledge of students and their needs about reproductive and sexual health. In the next step were identified students who have leadership quality from different department and then organize a series of training for these youth leaders on various aspects of reproductive and sexual health. The training courses have performed to educators for teaching and coordinating with them. These courses have performed always on Thursdays with 15-20 persons per session. Researcher meets peer educators for coordinating and continuous educating of them on every Sunday and every Tuesday at 12-14 o'clock (between classes). They participated in these sessions one time a week voluntary. Relationship between researcher and peers in these sessions is two-ways, so, the researchers present some education for them and peers asked question from researcher. These questions always were asked from peers by other students, and then answers transmitted to them by peers. There was private consultation for students on every Mondays and every Wednesdays at 12-14 o'clock (between classes). Intervention of this plan was performed in one year. All of 319 students that fill out post test questionnaires, already fill out pre test questionnaires, because of researcher want them if every person didn't fill out questionnaire in before intervention , don't fill out it in after intervention also the peer educator's questionnaires have excluded and have not analyzed.

The project will present to the ethics committee of the Oromieh Medical University and Oromieh University for approving. Written consent was taken from the representatives of the researches heads of both universities. The study was explained to the Students in their classes, take the permission from them and questionnaires were completed anonymously.

In this survey data were processed with using of SPSS version 12 and analyzed using descriptive statistics method. For comparing of SRH knowledge scores in before and after intervention, t-test and Mcnemar test were used. For assessing of effectiveness of independent variables on dependent variable, t-test and One-way Anova were used.

RESULTS

Age of the majority of students are 20 years and up than it. The fields of 22.6% of students are Persian language and literature, 21.8% English language and literature, 19.9% history, 14.7% geography, 21% educational science. Majority of students (91.6%) were never married. Data also

have shown, majority of students live in small city (54.6%) until 15 years old and up to 70% of them resident in dormitory or With peers/friends/ students in house. Of the other hand, Up to 56% of students' mothers were illiterate or only literate/primary school and nearly 90% of them (most of them) were housewife. About their fathers' literacy in 32% were illiteracy or with writing and reading, although, it was better than mothers' literacy, by the way. Two third of students have a person in their family/ relatives that they can easily talk about reproductive health related matters. In most cases, this person was mother, next sister and later relatives or friends but unfortunately most of these persons weren't a health related profession and they aren't suitable person for consultation.

A few percent of students (less than 15%) assessed their knowledge about sexual and reproductive health in all 4 parts adequate. Nearly 70% of students state that they receive information about reproductive and sexual health issues up to now. The most important source of information on reproductive and sexual health in view of students was mother, friends, book/magazines, sister, School teacher, Radio/Television. Nearly 80% of students interested in learning about reproductive health. Students prefer to receive more information from doctor, mother, book/magazine, and nurse/other health worker, School teacher, Radio/Television, Computer/ Internet and friends. Most of students state that the best time for starting reproductive health training is before entrance to university. Up to 85% of students are interested in having a formal course about reproductive health in the university. Nearly 40% of students take the demography and family planning courses in the university. Less than 10% of students think that the content of this course (demography and family planning) is completely adequate for reproductive health related knowledge needs. Near to 88% of students received educational text that prepare for this research from peer educators and 41.7% of them have consulate by researcher during this research. Up to 85% of students have had minimally one contact with peer educators and received educational text from them in the present study. Nearly half of them took consulted by researcher. Most of them received this information from peer educator in dormitory and in university between their classes. Nearly 75% of students assess this research on your reproductive health enablement effective.

The percents of correct answers to the question about reproductive health and reproductive health problem in youth, Sexual organs and their structure and function, menstruation and pregnancy, family planning concept and contraception methods and genital tract infections, sexual transmitted disease, AIDS and preventive behavior have increased after intervention in all matters. The average score of students in question about reproductive health concept and reproductive health problem in youth, from 1.39±1.02 before intervention arrived to 1.79±1.03 after intervention ($p<0.05$) and the average score of students in question about Sexual organs and their structure and function, menstruation and pregnancy was 6.34±3.93 before intervention that improved to 10.25±3.50 after intervention ($p<0.05$). The average of 3.83±3.59 before intervention was arrived to 7.51±3.57 after intervention in question about Family planning concept and contraception methods ($p<0.05$). Finally, in Genital tract infections, sexual transmitted disease, AIDS and preventive behavior average marks were arrived 4.73±2.72 from 2.09±2.20 before intervention ($p<0.05$). In the plus of them, the average score of all questions (47 question=47scores) in reproductive health issues was 13.66±8.84 before intervention and arrived to 24.29±9.12 after intervention ($p<0.05$) (See table 1).

Table1. The average score of female students in question about reproductive health (Oromieh University-IRAN 2008-2009)

Reproductive health issue	Before intervention	After intervention	Statistical analysis
Reproductive health concept and reproductive health problem in youth	1.39±1.02	1.79±1.03	t=-5.11 p=0.00
Sexual organs and their structure and function, menstruation and pregnancy	6.34±3.93	10.25±3.50	t=-13.82 p=0.00
Family planning concept and contraception methods	3.83±3.59	7.51±3.57	t=-13.89 p=0.00
Genital tract infections, sexual transmitted disease, AIDS and preventive behavior	2.09±2.20	4.73±2.72	t=-14.44 p=0.00
Total of score	13.66±8.84	24.29±9.12	t=-15.85 p=0.00

** There are significant difference (t-Test) (95% confidence interval of the difference)*

The students that received educational text that prepare for this research achieve upper score (25.94±8.40) than the students didn't receive them (20.66±7.82). This difference are statistically significant ($p<0.05$). Also the students that received educational text that prepare for this research and information from peer educator too, achieve upper score (26.26±8.29) than the other students. One-Way Anova test shows statistically significant differences between group ($p<0.05$), (See table 2).

Table 2. Effect of receiving educational text that prepared for this research and receiving any information about reproductive health from peer educator by students on the average score of question about Reproductive health

	Average score
Receiving educational text	
Yes	25.94±8.40
No	20.66±7.82
Statistical analyze	t= 3.976 **p= 0.000**
Receiving any information from peer educator	
No, I am not received any information from peer educator	23.94±8.58
Only I received educational text but there isn't any conversation between us	23.68±8.63
I received educational text and information from peer educator	26.26±8.29
I didn't receive educational text but I receive information from peer educator	18.92±7.53
Statistical analyze	F=4.170 **p=0.007**

DISCUSSION

In sum of 236 students (74%) have had minimally one contact with peer educators in our study. Erulkar and et all(2006) did a population-based surveys among over 1000 adolescents aged 10 to 19 years in slum areas of Addis Ababa, Ethiopia (20). An inventory of youth program including youth centers and peer education program was compiled in the study area. Eight peer education program and six youth centers were operating in the study area. Only 27% of boys and 15% of girls had had contact with a peer educator. In the other study in rural area of Turkey that was done by Ozcebe , Akin (21), 56.4% and 61.5% of young girls in the interventional villages answered that they had known the peer educators. 43.6% and 38.5% of them answered that they hadn't known the peer educator not at all. 28.2% and 50% of these girls in the interventional group (two village) stated that they had talk with peer educators and 48.1% , 64.1% of them hadn't talk with peer educator not at all. To replied of: "Where or when are you received this information from educator?" 73 students have mentioned

were in dormitory, 102 (32.0%)number in university between their classes and 7 students in restaurant and 2 students in other places. To replied of: "How are you assess this research on your reproductive health enablement?" It was shown that 36.1% were most effective, 36.7% were effective and only 6.0% were not effective. In the Ozcebe , Akin 's study(21), nearly half of youth stated that this survey was useful for them. Nearly half of these youth too stated that the survey was useful but they didn't use from it. It seems that the university students in our study assessed the peer education method about reproductive health matters more effective than the youth that lived in rural area. It means that, as similarity in peer groups as effective this model in training of youth about RSH.

This study showed that the average score of all questions (47 question=47scores) in reproductive health issues was 13.66±8.84 before intervention and arrived to 24.29±9.12 after intervention. It means that students averagely answered to the questions correct 29% before intervention and 52% after intervention. There is 23% increasing in correct answer of students to question about reproductive health issues. These data showed that the average score in every issue and totally were improved after intervention significantly (see Table1). Pinar and Taskin(2008) studied the effectiveness of reproductive and sexual health education program on university students(22). In this study there was a significant difference in the general scores of the students before (28.76±8.04) and after (47.85±2.97) education (p=0.000). Of course this study was assessed immediately after intervention on the contrary of our study that assessment was done one year after the starting of intervention. Also total score was 55 in this study, that it means increasing was 19.09 score equal to 34.7% increase though in our study total score was 47 and increasing was 10.63 equal to 22.6% increase. Added score in direct education and short assessment (Pinar and Taskin' study) were greater that indirect peer-led education and long term assessment but the most addition was in the third part (family planning and contraception methods) for all two studies. In the other study that was conducted at Dokuz Eylul University in Izmir, Turkey (2008) assessed the training of the peer trainers' course on short and long term basis. In this study the peer trainers' course and peer trainers' knowledge about reproductive health were assessed. According to the pre and immediate post-test results, the training resulted in an increase in knowledge learned by an average of 21.6% ($p<0.05$). Whereas, according to the immediate post-test and the late post-test which was given six month later, there was a 1.8% decrease in the knowledge and attitude of the participants ($p<0.05$). In this study, the most increasing in reproductive health knowledge of peer trainers was in family planning section too (37.42%) (23). In the other study by Mevsim and et all (2009) to determine whether students' knowledge of sexual and reproductive health can be improved by means of a thorough continuing education program including peer education and reproductive health counseling (24). The knowledge score of reproductive function, sexually transmitted infections and contraception increased by 17.4%, 10.0% and 11.9% respectively. The total knowledge score increased by 10.2%. Also to determine the effectiveness of an educational intervention program on knowledge of reproductive health among female adolescents, an educational intervention study was carried out over a period of one year. A total 791 rural girls in the age group 16-19 years were randomly selected from coastal villages in Udupi district, Karnataka (2008). A significant increase in overall knowledge after intervention (from 14.4 to 68%, $p<0.01$) was observed regarding contraception. Knowledge regarding ovulation, first sign of pregnancy and fertilization improved by 37.2 % (25). In Egypt, another quasi-experimental study (pre-post testing control group) was carried out among 682 female university students living in the university hostels, 354 students represented the intervention group (Ezbet-Saad hostel) who received the program and 328 students constituted the control group (El-Shatby hostel) (2003). The study revealed that no one

had satisfactory knowledge level while 61.7 % and 38.3% respectively had fair and poor levels. After the intervention program there was a significant improvement in the majority of knowledge questions from pre to post test in the intervention group and no absolute changes were detected in the control group (26). In the other study, Speizer and et all (2001) designed a quasi-experimental design to evaluate the peer educator program to promote STD/HIV- preventive behavior in Nkongsamba, Cameroon (27). The study indicates that contact with a peer educator is statistically significantly associated with greater spontaneous knowledge of modern contraception, the symptom of sexually transmitted infections. Other various studies have shown the effectiveness of interventions in increasing knowledge of reproductive health (28-31). Totally in compared of various studies about the effectiveness of RSH educations were found that, direct education can be more effective but it is more expensive. Although it seems that for some issues and for some cultures such as reproductive and sexual issues and between youth specially students, indirect education models as peer education model is more effective than other models. Although some issues such as reproductive and sexual issues were taboo and talking about them is forbidden among unmarried young women, peer-led education can be more effective, more permanent and less expensive.

CONCLUSION

This educational method increased the knowledge level and empowered the university female students in related to their sexual and reproductive health. Based on these finding, educating and counseling of university students in sexual and reproductive health matters via peer education method by health workers and teachers were proposed.

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