Effect of sexual education on sexual health

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Abstract: The purpose of this study was to evaluate the effect of special sex education program in sexual health on Iranian newlywed couples. A sample of 64 couples, referred to three health-centers of Tehran Medicine University, a few months prior to their marriage, divided in case and control groups. All cases had contributed to three lecture sessions given by the researcher. The lectures were consisted of different aspects of the sexuality such as reproductive and sexual health, sexuality response cycle and sexual communication. The control group had taken only the lectures which is presented normally in the preparation marriage program and were based on the family planning and personal health. Six months after education, we assessed the sexual satisfaction, healthy behaviors and finally sexual health of the two groups. The results indicate that the sexual health in the case group is significantly improved compared with the control group.

Key words: sex education, couples, sexual health, Iran.

Introduction

The classical definition of sexual health states, "sexual health is the integration of the somatic, emotional, intellectual and social aspects of sexual beings in way that are positively enriching and enhancing personality, communication, and love" (WHO, 1975). In other word, the sexual health consists of health feelings and ability to improve satisfied reciprocal communication. It is not limited to the STI and HIV. It is happiness, sexual satisfaction and ability of sharing sexual enjoyment with partner (Willson, 2000). These objectives are best served by multifaceted sex and relationship education programs. Effective sex education can reduce sex ill-health among young people (DOH, 2001 a). In this study we divided the sexual health to two main topics; safe sex and sex enjoy.

Safe sex means the behaviors that lead to decrease of unwanted pregnancy, STI or any disease that threatened the reproductive health. Safe sex consists of abstinence, monogamy relationship, decrease sexual partners, consistent and correct use of condom and abstinence of alcohol, opium's and drug abuse (Androw, 2001). Preventing of Sexual transmitted

trichomoniasis, gonorrhea and human papillomavirus (HPV). We have also 9800 cases of HIV positive, 374 cases of AIDS and 1041 dead cases who have been registered and at least 40,000 unregistered cases of HIV positive. Until few years ago, the most important transmission way of HIV virus in Iran, was the use of infected syringes among users of injectable opium. Now it is changed to 42% of injectable opium users and 48% unprotected sexual relationship. The AIDS is more frequent in 25-34 years women and men (Health ministry, 2004). The side effects of the STI are infertility, poor pregnancy outcomes, mentally and physically abnormality in new born baby, chronic pelvic pain, cervix cancer and death (Carlson, 2002).
Although, we have had a very successful national program for family planning since 1990 (all of methods of family planning are free in many health centers), we are in the beginning way of preventing from STI. In the recent 4-5 years, STI was one of our healthy priorities and educations about safe sex have been started in many high schools and media.
Malekkhosravi (2005) reported that from 986 women in her study , 35% of women had not had any information of AIDS transmission ways, only 9% had used condom as a contraceptive method and 40% had stated that their knowledge about sexual transmitted disease was inadequate (Avesina, 2005).

Another important aspect of sexual health is learning about sexuality and enjoy of sex. It consists of sexual response cycle, physical and emotional difference in men and women, sexual behaviors and sexual communication. Despite the importance of sexuality in overall health and well-being, sexual education, assessment and discussion is frequently neglected (Mclaren, 1995). In Iran, this part of sex education is not officially included in the schools or universities curriculum or any official or private organization. Also in the society, discussing about sexuality is often with feeling of fear, shame and taboo. The pressure of parents and society in this subject in many cases has created the wrong believes and attitudes. So that, even after marriage, couples cannot speak about their needs, expectations and problems and it can lead to sexual dissatisfaction and divorce (Nejati, 2003). In 2003, the rate of divorce in Iran, with 10% increase in comparison with 2002, has been reached to 9.1%. In Tehran, this rate was 19.9% and more than 12000 cases of divorce annually, which was the highest rate in Iran. Many of sociologists believe that one of the most important reasons of this rapid growth in divorce is sexual dissatisfaction, due to lack of sexual communication and knowledge.

The research on women who demanded for divorce (Amirian, 2005) showed that 53% of them was dissatisfied of sexual relationships. In this respect, 68% of women had not any sexual desire to their husbands, 65% stated that didn't enjoy of for-playing, 64% had not orgasm, 59% of them felt angry after sex and totally sexual satisfaction were significantly lower than a normal society. The assessment of sexual knowledge of 100 newlywed couples (Sherbaf, 2005) revealed that only 40% of men and 30% of women knew about the sexual

12.7 % of women had fear from sexual relationship and the vast majority of the couples (81.6 %) agreed that sex education class is necessary (avesina, 2005). In Sherbaf ´s (2005) and Khiyabani´s (2005) studies the most important resources for sexual information in young people were the satellite, internet and friends. The least significant source was family (FRC, 2005). This low knowledge leads to Sexual myths. For example, in two studies (Yaghmai, 2004 & Bayrami, 2004) respectively 64% and 53% from pregnant women stated that intercourse in pregnancy is a dangerous behavior and even 35% reported that it is a sin (Avesina , 2005).

In summary, according to the importance of sexual health in overall health of society, our cultural deprivation and ignorance about sexuality and considering of 31 millions population between "15-35" years (among 73 millions population) in Iran, the importance of sex education and promoting of sexual health is quite obvious.

Many studies in Iran, demonstrate that level of sex knowledge of young people is not adequate, but just a few studies have been focused on the context of sex education based on our couple's needs and problems. The purpose of this study is to investigate the level of sexual satisfaction, healthy behaviors and consequently sexual health after sex education. In this study, we have considered the sexual health in its comprehensive meaning, consisted of preventive of STD, unwanted pregnancy, any disease or behavior that threatened the reproductive health. It is also the knowledge about physical and emotional aspects of sexuality in the manner which leads to responsible behavior of partners and enjoy of sex.

Research questions

The following research questions were tested in this study:

1- Is there any significant difference in health behaviors between case and control group of the couples?

2- Is there any significant difference in sexual satisfaction between case and control group of the couples?

3- Is there any significant difference in sexual health between case and control group of the couples?

In addition, the opinions of couples about useful subjects, timing and global satisfaction of this program were explored separately.

Method

Sample

Although most of the time sex education programs are for teenagers or students, it is not possible in Iran, due to religious and cultural consideration (officially, individuals don’t

license, from February to September 2004. These centers are in downtown and people are normally of moderate- to low –socioeconomic status.
It was not possible to evaluate the couples' baseline sexual satisfaction, because of the same reason mentioned before .Therefore we have chosen two groups consisted of 100 couples in case and 100 couples in control group. The control group has been chosen from the attendance in the ordinary class. For the case group, a special program was prepared that consisted of three hours as lectures. Both groups were given stamped envelopes and two questionnaires (for the wife and husband separately) that were to be filled in and returned four months after the marriage (six months after the education). Couples who had agreed to participate in this research provided their address and telephone number through which they could be contacted for follow-up. In these six months, we were in touch with couples at least three times. We have received 50 envelops from case group and 32 from control group. The final sample was 32 couple in each group. All of the respondents were Moslem (Shiite) and in their first marriage. The average age was 23.9 and 27.4 years for women and men, respectively. 1.5% of the sample had primary school education, 10.9% secondary school; 40.6% high school and 47.0% some college education. In terms of income, 3.1% of respondents reported earning a monthly income of less than $100, 45.3% between $100-200, 35.9% between $200–300 and 15.7% more than $300 (less than $100 monthly income is considered below the 'poverty line'). The duration since the spouses first get to know each other to the wedding was approximately less than 12 months for two thirds (64.0 %) of the couples; 1-3 years for 20.3 % and more than 3 years for 15.6%.

Program

The essential topics for sex education are anatomical and physiological difference between female and males, reproductive cycle in male and female, conception, contraception and preventive of STI (Wertheimer, 2005). On the other hand sex education forum believed that sex education is not just preventing STI or reducing unwanted pregnancy. It contains learning about sex, sexuality, emotions, relationships, forming positive beliefs, values and attitudes (SEF, 1999). In our study:

Sex education included the 3 hours segregated class for men and women with a same sex counselor and consisted of brief lecture and discussion. It had been divided to two main topics; safe sex and sex enjoy. The safe sex lectures covered the men and women genital anatomy and physiology, reproductive cycle (menstruation, ovulation and conception), reproductive health, reproductive screening test (pop smear, breast and testis exam), contraception and preventive of STI. Sex enjoy or sexuality topics has been devoted to sexual response cycle(SRC), influenced factors in this cycle (fantasy, sexual stimulations, intimacy, fatigue, anxiety, monotony), physical and emotional differences in men and women in this cycle, sexual communication, sexual techniques and behaviors. Regarding to the limitation of our time, we prepared pamphlets for every couple and in class, our focus

scores which earned from 10 items of healthy behaviors questionnaire and 10 items of sexual satisfaction questionnaire; ranging from 0-50.

Healthy behaviors (safe sex) includes the Behaviors lead to decrease of unwanted pregnancy, STI or any disease that threatened the reproductive health. For evaluating of healthy behaviors, we designed a 10 items questionnaire, scored on binary scale. Possible score range was 0-10 and Higher scores reflected higher safe sex. The face and content validity has confirmed by 20 members of Tehran University. In test re test the average reliability in duration of 4 weeks, was 0.76.

Sexual satisfaction (sex enjoy) indicated the couples satisfaction from sexual relationships. With presumption that knowledge about physiological and emotional aspects of sexual response cycle and sexual communication affects on sexual satisfaction; we used 10 questions of ENRICH (Enriching & Nurturing Relationship Issue, Communication & Happiness) 115-items questionnaire concern to sexual satisfaction. The items scored on a 5-point likert scale and Possible score range was 0-40. Higher scores reflected higher satisfaction. In Iran, internal consistency for this questionnaire was 0.94 and Cronbach's alpha was 0.92 and 0.95 in different researches (Sanai, 2001). In our study, in test re test, the average reliability in duration of four weeks was 0.86. Ten demographic items, one global satisfaction item, one item concerning to time of program and one item for evaluating of more useful subjects have been added.

Analysis

At the first, we compared individual demographic characteristics in two groups. Statistical testes (x square and Fisher exact) have been shown that there isn't any significant difference and two groups match in the demographic variables. Therefore, if we can see any difference in sexual health in two groups, it will be the result of our education.

In dependent variables, we have compared the answers of every question in women with the answers of the same question in men, for the case group and then in the control group. For this purpose in sexual health (binary questions), we used from Mcnemar test and in sexual satisfaction (likert questions) from Wilcoxson test. We have not seen any significant difference between women's and men's answers in each group. Therefore, in this study we have considered women's answers as the couples´ answers. Healthy behaviors, sexual satisfaction and finally sexual health assessed in the two groups with Man-Whitney test. P-value fewer than 0.05 has been considered as significant difference. For easier understanding we divided these variables in three levels, score under 50% of total score considered as low or risky, score between 50-75% moderate and more than 75% as high level or safe.

Results

Six months after education, % 90.6 of case group has reported high sexual satisfaction, in control group this rate was % 71.9.Mean & standard division score of sexual satisfaction in case group were M =35.62 SD =5.89 and in control group were M =32.90 , SD=4.72 Man-

High	29	90.6	23	71.9	
Moderate	1	3.1	9	28.1	u=287.00
Low	2	6.3	0	0	P<.002
Total	32	100	32	100	

After sex education, healthy behaviors also increased significantly .Safe behaviors have been seen in 96.9% of case group and only in 21.9% of control group. Mean & standard division score of healthy behavior in case group were M =8.96 SD =1.12 and in control group were M =5.5 SD=1.16. Man Whitney test showed a significant (p<.000 ; table 2) difference in healthy behavior in two groups.

Table2--Comparison of healthy behaviors in two groups

Group	Case		Control		Man
Behaviour	N	P	N	P	Whitney
safe	31	96.9	7	21.9	
Moderate	1	3.1	19	59.4	u=125.00
risky	0	0	6	18.8	P<.000
Total	32	100	32	100	

Comparison of sexual health showed that 90.6% of case group and 68.8% of control group had high sexual health. Mean & standard division score of sexual health in case group were M =44.59 SD =6.00 and in control group were M =38.40 SD=5.44. Man Whitney test showed a significant (p<.029 ; table 3) difference in sexual health in two groups.

Table3-Comparison of sexual Health in two groups

Group	Case		Control		Man
Sex. health	N	P	N	P	Whitney
High	29	90.6	22	68.8	
Moderate	3	9.4	9	28.1	u=398.50
Low	0	0	1	3.1	P<.029
Total	32	100	32	100	

Global satisfaction rating was found to be strongly positive. In case group, 56.3 % of couples reported that this class was very useful, while in control group a large percentage of individual (46.9 %) reported that attending in this class had a moderate value(table 4).

Table4- satisfaction rating of two groups from class

Group Evaluation	Case N	Case P	Control N	Control P	X^2 square
Total	32	100	32	100	

When respondents were asked which subjects were most useful, in case group, sexual response cycle and it's difference in men &women (%34.4), and sexual communication (%19) received respectively the highest ratings .But in control group %44 of participant didn't answer to this question and %22 also said none of subject were useful and it's clear that they hadn't any view in another subjects except family planning (table 5).

Table 5 –opinion of two groups about the most useful subject

Group Subject	Case P	Control P
All Subject	28	18
prevention STI	9.3	---
Response cycle	34.4	---
Communication	19	---
Familyplanning	9.3	16
None subject	---	22
No answer	---	44

After sex education 90.6% of the case group has reported high sexual satisfaction, in the control group this rate was 71.9%. The mean and standard division score of sexual satisfaction in the case group were M =35.62, SD =5.89 and in the control group were M =32.90, SD=4.72. The Man-Whitney test showed a significant (p<.002 ; table 1) difference in sexual satisfaction in the two groups.

Comparison of the sexual health showed that 90.6% of the case group and 68.8% of the control group had high sexual health. The mean and standard division score of sexual health in the case group were M =44.59, SD =6.00 and in the control group were M =38.40, SD=5.44, respectively. The Man-Whitney test showed a significant (p<.029 ; table 3) difference in the sexual health in the two groups.
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The respondents were asked of the most useful subject of the program. The answer in the

Discussion

Research question 1- Is there any significant difference in health behaviors between the case and control group of the couples?

After sex education, *healthy behavi*ors increased significantly ($P<.000$). The analysis of the results of many studies throughout the world, demonstrated a relationship of sex education with a lower prevalence of STD (Westheimer, 2005). Miller (2002) compared the adolescents who had been attended in a special sex education program, as elementary school student, with control group and found that education can prevent risky sexual behaviors even after several years. Haggstrom et al. (2002) also showed that contraceptive use has increased among Sweden's teenagers over the 20-years-period and it might be explained by sex education programs in high schools. Mostafi zade (2003) evaluated the effect of education on healthy behaviors in 1000 newlywed women in one of the big city in Iran. She found that with education, the level of knowledge in topics like reproductive cycle, contraceptive methods and preventive of STD have been increased significantly (avesina, 2005).

Research question 2- Is there any significant difference in sexual satisfaction between the case and control group of the couples?

Because in Iran, officially the first sexual activity starts after marriage, we guessed that in early marriage, may sexual satisfaction remain so high in two groups that can not show any effect of education, but our finding indicated a meaningful difference in sexual satisfaction in two groups. Westheimer (2005) reported that knowing about the sexual response cycle can be extremely important for sexual satisfaction and understanding the basic difference between women and men in sexual arousal and response. It might be that the discussion about wrong believes also help to have more joy from sexuality. Greenberg et al. (2002), states that only knowledge can dispel sexual myths, superstitions and misinformation and establish a responsibility for promotion sexual health. Master and Janson's conclusion (1970), which is probably still relevant, was that "sociocultural deprivation and ignorance of sexual physiology, rather than psychiatric or medical illness" were at the source of most sexual dysfunction (Greenberg et al., 2002).

It is possible also that the sexual communication skills can increase sexual satisfaction in the case group. Through effective communications, partners are able to express to each other their sexual needs, desires, preferences and expectations (Larson et al., 1998). Social part of sexuality has been noticed in last two decades vastly. Individual ability to sexual communication plays an important role in sexual wellness and self image. These communication skills involve active listening, empathy, self disclosure and giving and receiving criticism (Greenberg et al., 2002).

To consider this little time that we devoted to this subject, it is considerable that couples reported this subject as the second useful topics. Although for the exact evaluation of the

most helpful topics. It is because they have not received any official information about sexuality and also have not had any sexual experience. It is obvious that the problems and questions will reveal after encountering with sexual activities.

Research question 3- Is there any significant difference in sexual health between the case and control group of the couples?
Sexual health shows meaningful difference after education. It seems, decrease high risk behavior, dispel common sexual myths and increase joy and satisfaction of sexual activity cause by higher sexual health and can interpretation a Significant difference in satisfaction rating of two groups, from these classes. It's similar to Donati et al.(2000) results, who found after sex education the mean score of sexual health from M=5.00 in pretest changed to M=10.7 in 4-6 months after education. Moshiri (2005) in her study found that in the pretest, the level of knowledge about healthy behaviors in 68% and about sexuality in 88% of newlywed couples were low. Just after education (post test) in 74% of couples, healthy behaviors and in 90% of them knowledge about sexuality reached to satisfied level (FRC, 2005).

Although the case group attended in three hours class,but they stated that the time was inadequate. Whereas the control group with less than one hour class reported that timing was enough. It seems that because of an appropriate context, clear and without shaming clarifying and opportunity to express problems, the actual needs of couples have been revealed.

There are several limitations of the present study. An important limitation was the timing of education. For discussing about such expanded subjects, the devoted time was very short. Of course it was not because of the limitation of researchers, rather than of couple acceptance especially in registering time and before attending in course. The present study was limited to self-report measures of sexual satisfaction and healthy behaviors .Future studies should include observational measurement of these factors and also using a larger and more heterogeneous sample. The qualitative method used for assessing healthy behaviors did not allow the exact evaluation in many related aspects. It is possible that through further questioning, greater datas in different categories could have been obtained.

This study like many others research; shows the importance of sexual education. Public health organizations could use these finding to achieve the couples real demands and expectations and designing a comprehensive program with regard to different physical, emotional and interpersonal aspects of sexuality. Primary health care providers may use these finding for young people. Public awareness should be increased, especially for those at risk, like adolescents.

Further studies could help to clarify the role of sexual communication on sexual

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