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ORIGINAL ARTICLE

Knowledge and attitudes of female students who live in Tehran dormitories, towards STDs and sexual relationship

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ABSTRACT

Background: Sexual and reproductive ill health causes over one third of the global burden of diseases among women of childbearing age. This survey was performed to study female students' knowledge and attitudes towards STDs and sexual relations.

Patients and methods: A KAP study was achieved. Knowledge, attitudes and practice were asked by questionnaire. One hundred and four female students of three dormitories were selected by convenient sampling method. The levels of knowledge and attitudes were measured and analyzed by SPSS software.

Results: AIDS and hepatitis were recalled by 85.6% and 44.9% of students, respectively. Only, 1% of students had acceptable knowledge and the remaining had low and very low level of knowledge. Students guessed their intimate friends have sex relationship with their boyfriends (28.3%). Female students pointed to "sexual need and instinct" as the most prevalent reasons for before marriage sex (40.1% for females and 72.6% for males, $p<0.015$).

Conclusion: Promoting the knowledge, attitudes and life skills of students through health education programs with respect to sexual issues and reproductive health is necessary. Providing reproductive health services and periodical examinations for females are recommended too.

Keywords: *STD; Dormitory; Sexual relationship; Female students; Reproductive health.*
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INTRODUCTION

Potential to reproduction is one of the creation magnificence. It is secrecy of survival. However, the other side of this reality is disease and even death, since human sometimes follow unsafe sex. Unsafe sex is the second risk factor for disability and death in the poorest countries and the ninth risk factor in developed countries (1). Sexually transmitted infections (STIs) accounted for more than 26% of all deaths and over 5 million DALYs in 2000 and over 98% of this burden was due to HIV/AIDS (2). IPPF (International Planned Parenthood Federation) reported that sexual and reproductive ill health causes over one third of the global burden of diseases among women of childbearing age (3).

Over the past decade, the international community has reiterated calls for integrating and strengthening linkages between sexual and reproductive health services and strategies for prevention and treatment of HIV/AIDS. According to ICPD (International Conference on Population and Development) goals, Iran has implemented its plan of actions in some areas i.e. prenatal care,

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breastfeeding and marriage counseling and established National Youth Organization (4). Different programs were successful i.e. family planning, but sexual education programs and prevention skills against STDs and unwanted pregnancies in some vulnerable groups like youth are not satisfying.

There are different beliefs (pros and cons) around the sexual education in Iran. In one hand, sexual issues are not Taboos in Islam based on several chapters of religious and Clergy books. Even, it is recommended that every Moslem should have proper awareness in this regard (5). On the other hand, there is a common belief that sex education may excite youth to have early sex and make them prone to unhealthy behaviors. Generally there are not systematic sex education strategies in Iranian educational system, but there have been sporadic programs i.e. AIDS and Safe Motherhood. Although, Parliament approved to set a population and family planning course for all university students, but it is not applied for all students (6).

A study showed "Kermanian parents have least agreement with education about opposite sex issues (7). Another study showed that less knowledge of medical university female students (36%) was found on sexual health but their attitudes towards reproductive health were positive (8). Some studies reported that appropriate relationships between females and males are needed for their personality development (9).

Several studies showed that 30-70% of youth are involved with sexuality problems (10). A survey studied 75000 adolescents in Iran and reported that 45% were emotionally hurt by sexual issues and 35% had troubles for those issues (11). Other study showed that majority of students believed that the main barriers for the youth reproductive health promotion are non-advocating environment and low knowledge of youth (12).

In a study, a total of 11.2% of women had acceptable knowledge about STDs (13). Simbar and colleagues reported that Qazvin students have a moderate knowledge and positive attitudes about reproductive health. Findings of another study showed that medical and dental students had less knowledge and more fear about AIDS, and knowledge of males was more than females ($p<0.001$) (14). The results of other study on colleges' students showed that 46% and 51% of sexually active males and females, respectively, reported that they were not concerned about contracting an STI (15).

According to cultural and religious conditions, girls and women's position in the family is more special in Iran. Currently, the majority of university students in Iran are women. They move to the big cities and considerable changes occur in their life styles and behavioral models. Being away from family, push them to have relation with others i.e. males and this is not acceptable in the Iranian culture. Having not enough information about these relations and lack of self-care skills make them vulnerable to unhealthy behaviors and diseases. Due to mentioned reasons, we designed and performed this study to determine knowledge and attitudes of students who lived in Tehran dormitories towards STDs and sexual relationships and reproductive health. It was expected that the results of this study could help policy makers to manage youth sexual issues.

PATIENTS and METHODS

A KAP study was achieved. One hundred and four students of three dormitories (Amirkabir and Shahid Beheshti universities) were selected by convenient sampling. A well-prepared questionnaire was applied. Structure of questionnaire was as follow: Some questions regarding demographic variables and some dealing with knowledge, attitudes and practice. Since the open ended questions assess the knowledge and opinions better than multiple choice questions, we use them, when appropriate. Knowledge was

measured by open-ended questions for each item as follow: what is sexually transmitted disease (STDs), recalling of STDs names, the ways of being infected, contraception methods, probability of being pregnant after first sex, probability of being pregnant related to having sex and menstrual cycle days. Each true answer had 1 score. Hence, the total score for knowledge questions was 34. Cut-off points were applied as follow: 17(50% of scores) as acceptable, 8-16 (25% of scores) as low and less than 8 (<25% of scores) as very low level of knowledge.

Students' attitudes towards sexual relationship before marriage were measured by a question, with Likert scale (1=agreed, 2=some agreed, 3=no agreed-no disagreed, 4=some disagreed, 5= disagreed). Two open-ended questions were dealing with females and males reasons for having sex before marriage. Opinions of students about levels of sexual knowledge were asked by an open-ended question. Regarding to the students' practice in the case of sexual relationships and referring to persons for asking help, and for ethical reasons, 2 open-ended indirect questions were asked.

The content validity and face validity of questionnaire was assessed by peers. A pilot study was performed to assess reliability of questionnaire by using equivalent forms. Reliability of questionnaire was acceptable (r=0.87). Having received the permission of dormitories' authorities, 104 questionnaires distributed among available students. They answered the questionnaires individually. The answers of open-ended questions were extracted by content analysis. T-test, Mann-Withney and McNemar tests were used for statistical analysis and the p-value ≤0.05 was set as significance point.

RESULTS

Of 104 respondents, 87.2% were bachelor and 12.8% were master degree students. Technical and non-technical students were 41.3% and 58.7%, respectively. Students mean age was 21.3±1.9 years. Content analysis of answers to the question "what does STDs mean" showed that responses of 87.2% of students were "true". Responses to question "Recall some STDs that you know" showed that three percent of students did not know any STDs. AIDS and hepatitis were known by 85.6% and 44.9%, respectively. Gonorrhea, syphilis, candidal infections, genital herpes and chancre are known by 28.9, 22.7, 11.1, 7.6, and 1.1 percent of students, respectively. Tetanus, diabetes mellitus, multiple sclerosis (MS), hemorrhoid and anal fissure were found among the answers and we classified as unrelated responses to STDs.

Responses to the question "What are the ways of being infected by STDs" showed that students pointed to: sexual contact (58.5%), blood contact (16.9%), oral contact (3.9%), not-using condom (6.5%), and sex with contaminated partner (5.2%), illegitimate sex (5.2%), and other ways of infection (3.8%). Responses to question "What are the methods to prevent pregnancy" were as follows: OCP (87.1%), condom (82.4%), IUD (47.5%), tubal ligation (32.7%), vasectomy (28.3%), natural method (25.5%), implant (16.7%), ampoule (16.7%), diaphragm (2.9%), and gel (2%). Only 2% of students did not mention any method.

Responses to the question "What is the probability of being pregnant within the first sexual contact" were: low (21.5%), middle (11.4%), high (36.7%), and 30.4% did not know it. Responses to question "When the probability of being pregnant after sex (related to menstrual cycle) is the most?" showed that 55.8% of the responders answered correctly.

Total knowledge of only 1% of responders about STDs, sex relationships and reproductive health were acceptable (score >17), 40.4% were low and 58.6% were very low (score <8). T-test showed that mean of knowledge of technical (7.8±2.8) and non-technical students (8.2±3.3) were not differed significantly (p=0.525). Mean of knowledge of bachelor (8.01±3.2) and master

students (9.08±3.4) were not differed significantly, too (p=0.288).

Responses to the question "In your opinion, do your intimate friends have boyfriends?" showed that 13.4% of responders believed that their intimate friends have boyfriends definitely, 24% believed that the majority of their friends have intimate boyfriends, 18.8% believed that half of their friends have intimate boyfriends, and 31.3% believed that a few friends of theirs have intimate boyfriends. Only 9.4% of students thought that their friends did not have any intimate boyfriends

Responses to the question "What do you think about before marriage sex" were as follows: agreed (2%), some agreed (8.8%), "no agreed-no disagreed (9.8%), some disagreed (2%) and disagreed (77.4%). Mean of attitude scores towards before marriage sex relationship was 4.4±1.1 showing female students were disagreed with before marriage sex. Mann-Withney test represented means of attitude of technical (4.45±1.1) and non-technical students (4.43±1.11) were not differed significantly (p=0.845). Means of knowledge of bachelor (4.46±1.1) and master students (4.42±1.2) were not differed significantly, too (p=0.780). Responses to question "In your opinion, how is the awareness of students about sexual issues" were: low (37.8%), moderate (48%) and good (14.2%).

Table 1 shows responses to the question "In your opinion, what are the reasons that females and males have a sexual relationship before marriage? As shown, the reasons were more or less similar in some items. The most prevalent uncommon reasons were sexual needs and instinct (40.1% for females and 72.6% for males, p<0.015), affection deficiency (28.7% for females and 4.3% for males, p<0.001), and finding a proper partner (2.1% for females and 24.5% for males, p<0.001).

Responses to an indirect question regarding before marriage sex practice; "You think, what percentages of your friends may have sexual relationships with intimate boyfriends" showed that 55.7% of responders thought their friends had not sex with intimate boyfriends, while 15.9% believed they had sex, 12.5% answered somehow and 15.9% were not aware of such relationships. Responses to an indirect question "If your friends be infected by sexual transmitted diseases, where they refer for help", were as follow: physicians (68%), friends (1.3%), and hide it (3.8%).

Table 1. Reasons of males and females before marriage sexual relationship from female students' opinion

Reasons	Females (%)	Males (%)	p-value
Sexual needs and instinct	40.1	72.6	0.015
Sexual stimulants	5.3	7.5	0.625
Affection deficiency	28.7	4.3	<0.001
Love expressing	7.4	2.2	0.062
Finding a proper partner	2.1	24.5	<0.001
Love and trust	3.1	-	-
Curiosity	8.3	6.2	0.754
Financial need	5.2	-	-
To be deceived	13.5	-	-
Lack of knowledge	22.7	-	-
experience	6.1	-	-
Willing to marriage	1	-	-
Dependence	2	-	-
Males force	6.1	-	-
Loneliness	2	-	-
Weakness of spirituality	5.1	2.1	0.687
Lack of self-esteem	1	-	-
Complex	2	-	-
Increasing marriage age	3	-	-
Delaying marriage age	1	-	-
Family problems	8.3	-	-
Lack of marriage facilities	8	10.2	0.687
disable to control sexual needs	-	3.1	-
Watching sexy films	-	2.1	-
Feeling of masculinity	-	2.1	-

DISCUSSION

Knowledge of students about STDs and sexual relations and pregnancy: The majority of students defined STDs correctly. Although, AIDS, hepatitis, gonorrhea, syphilis were recalled by considerable portion of responders that are similar to Simbar, and colleagues findings (12). Some STIs such as Candidal infections are recalled by a few students. Even, some of the students attributed some non-STDs like tetanus, diabetes, MS, hemorrhoid, anal fissure disease to STDs. Thus, it is suspected that

two last conditions likely be as consequences of anal sex. On the other hand, 11.1% of students recalled herpes simplex and no one recalled genital wart as STDs. However, low knowledge of students regarding the ways of spreading infections is alarming. This study showed that some of the students have sex relationships with boyfriends; meanwhile they had not enough knowledge about STDs and protective modalities, hence, they were prone to being infected. Findings of this study showed that there weren't any significant correlation between field of study and level of knowledge about STDs and also no significant difference between master and undergraduate students. Thus, reproductive health education is necessary for all students.

Responses to "What is the probability of being pregnant during the first sexual contact?" showed that 36.7% of students assessed it as high. In the other word, the majority of responders ignored the probability and risk of pregnancy after sex. This study showed that total knowledge of majority of students was low and very low. These findings supported by the other studies (9).

Students' attitudes and views about sexual relations: In responding to question "In your opinion, what percentages of your friends have intimate boyfriends?", only 9.4% of students thought that their friends did not have any intimate boyfriends. In the other word, the majority of females had intimate boyfriends that could increase probability of unsafe sex relationships. Responses to question "What do you think about before marriage sex" showed that majority of students were disagreed. This is in agreement with Sharifi study among female students of Azad University (16). Nevertheless, some students agreed with before marriage sex. This attitude could lead them to hazardous behaviors. Moreover, this could be synergized with insufficient knowledge of students to deal with sexual and reproductive issues.

Considering reasons of males and females for having sex before marriage showed that some reasons were common and some were uncommon. As shown in table 1, there were significant differences between some reasons such as "sexual needs", "finding a proper partner" and "affection deficiency". The last was more prevalent in females and the others were more prevalent in males. Affection deficiency could be a serious issue in those girls that are being far from their home and their home cities.

Students' sexual practices: Responses to an indirect question about before marriage sex practice showed that from views of responders, their friends have sex relationships with boyfriends (28.3%). This is differed to findings of Simbar and colleagues that reported before marriage sex of females' student was only 0.3% (12). This difference could be due to type of questions. Their question was direct and our questions were indirect. To consider low knowledge and somehow agreeable attitude towards before marriage sex as mentioned earlier, could put females in vulnerability. This could be more serious, since some of females hide such problems and do not refer to physicians or other qualified referees.

In conclusion, this study showed that the knowledge of majority of female students is weak and their attitudes and practice could lead them to unhealthy conditions. For improving sexual and reproductive health of youth and preventing of unsafe sex, unwanted pregnancies and STDs, it is suggested that policy makers set national strategies for improving youth knowledge, attitudes and practices. More educational opportunities must be provided for students especially females. Life skills learning programs should be available to youth. To discover the reasons of unsafe sex and risk behaviors, more studies should be performed. Since the results of this study could not be generalized to other female students, it is suggested that a study including all dormitories be performed and compared with students who live with families and in their home towns.

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