

Original Article

A Study on the Sources of Sexual Knowledge Acquisition among High School Students in Northwest Iran

Ayyoub Malek MD¹, Hamid Abbasi Shokoohi PhD², Ali Naghi Faghihi PhD³, Mahdi Bina MD⁴, Ali Reza Shafiee-Kandjani MD⁵

Abstract

Background: Considering the importance of sexual drive among teenagers, parental and societal concerns about teenagers' sexual drives, particularly in religious communities such as Iran is of practical importance; therefore, this present research was designed to study students' sources of sexual knowledge acquisition.

Methods: This research was carried out among 2600 high school students in the cities of Tabriz, Urmia, and Ardabil in Northwest Iran. Students were selected through a multi-staged randomized sampling method in Tabriz and by the convenience method in Ardabil and Urmia. The instrument was a self-administered questionnaire, which included 19 different resources. The resources were categorized into seven main groups and the results were statistically analyzed with SPSS version 11.5 software.

Results: Based on the mean score of each of the seven main groups of resources, the ranking order of the resources was as follows: 1) immediate friends and peers 2) pictures, magazines, and books 3) audiovisual (CDs, foreign movies, satellite programs, and the Internet) 4) school trainings 5) physicians, clergy, and counseling centers 6) family (parents and siblings) and 7) close family members. The differences between the resources were statistically significant (P value= 0.0001).

Conclusion: Results of the present study emphasize that teenagers should be educated in different areas of sexual problems with the help of parents, schools, and official sources and centers in the society as confident sources of obtaining sexual knowledge. There is a need to prepare a codified educational curriculum in different levels in order to offer teenagers' sexual education in the form of books or specific school credits.

Keywords: Iran, school, sexual knowledge, sources, student

Introduction

Sexual drive is a strong instinct that mostly affects human behavior but in contrast to instincts such as thirst and hunger, which simply meet the individual's life-saving needs, it is typically linked to

a socially gratifying interaction with another person, in addition to the basic element of reproduction and survival of humans throughout history.¹

In religious communities like Iran, there are specific sexual norms and morality. Therefore, it seems that Muslim parents or individuals and the media, which communicate with teenagers, can not pose sexual issues among them conveniently or they may feel uncomfortable to give sexual training to their children and teenagers. The major reason for this problem is not religious training but the involvement of other socio-cultural factors. Of course sexual restriction is a universal problem. Accordingly, most religions have addressed the question of a proper role for sexuality in human interactions. However,

Authors' affiliations: ¹Department of Psychiatry, Tabriz University of Medical Sciences, Tabriz, ²Department of Social Sciences, Tabriz University, Tabriz, ³Department of Educational Sciences, Qom University, Qom, ⁴Department of Psychiatry, Shahid Beheshti University of Medical Sciences, Tehran, ⁵Department of Psychiatry, Faculty of Medical Sciences, Islamic Azad University-Tabriz Branch, Tabriz, Iran.

Corresponding author and reprints: Ayyoub Malek MD, Child and Adolescent Psychiatric Ward, Department of Psychiatry, Razi Mental Hospital, El Goli Bolvd., P.O. Box: 5456, Tabriz, Iran. Fax: +98-411-380-3351, E-mail: maleka@tbzmed.ac.ir
Accepted for publication: 16 June 2010

there are abundant Islamic contexts in which the affairs in the field of sexual upbringing of children and teenagers have been dealt with indicating the necessity of their acquaintance with sexual knowledge in each phase of human development.²

Some studies in the field of sexuality suggest a relationship between the source of knowledge acquisition and sexual activities and behaviors.³

In a study conducted in Nigeria⁴ it was revealed that intercourse before marriage among the teenagers who obtained sexual knowledge from their friends and peers was significantly more than those who received sexual knowledge from other sources. Moreover, the satisfaction with the first intercourse was significantly higher among those who were educated by their parents, teachers, and peers than those who obtained their sexual knowledge from books, magazines, and movies. A study of over 400 adolescents clearly showed that adolescents who reported a greater number of sex based topics discussed with their mothers were more likely to not have high-risk sexual behaviors. Instead, they were more likely to express conservative attitudes about sex and were less likely to have engaged in it.⁵

As far as we know, there are a few studies conducted in Iran regarding the sources of acquiring sexual knowledge among high school students. In a study by Mohammadi and colleagues⁶ among adolescent males in Tehran, Iran a total of 28% of the sample reported having engaged in sexual activity. Sexual experience was associated with older age, access to satellite television, alcohol consumption, and permissive attitudes toward sex. Substantial proportions of respondents held misconceptions regarding condoms, sexually transmitted diseases (STD), and reproductive physiology. Attitudes toward premarital sex were more permissive among respondents who were older, not in school, had work experience, had access to the internet or satellite television, lived separately from their parents, or reported having used alcohol, cigarettes, or drugs.⁶

The literature indicates that according to research in most countries, the most common sources of sexual knowledge for teenagers are friends, peers, and media; a study done in India among 10 to 21 year-olds in different grades showed that those who had dropped out of school were more likely to get their sexual information from movies and other mass media, while university and high-school students re-

vealed their friends and peers as primary sources.⁷

Based on the importance of sexual drive in adolescents as well as parental concerns in this field, the relationship between the source of sexual information and the type of sexual activity and behavior; therefore the present research was designed determine the sources of sexual knowledge acquired by high-school male and female students in Tabriz, Urmia, and Ardabil (three central cities in Northwest Iran).

Materials and Methods

The target populations of the study included all high-school male and female students of Tabriz, Urmia and Ardabil cities during spring 2005, which were based on statistics obtained from the education head offices in the above mentioned cities. There were 66,863 students altogether.

Through using the Cochran sampling formula, the sample sizes for Tabriz, Urmia, and Ardabil were estimated at 850, 650, and 600 consecutively. However, based on the characteristics of the study, the sample sizes were considered to be 1000 for Tabriz, 850 for Urmia, and 750 for Ardabil, such that probable omission of samples would not harm the sample size.

Based on the methodology of data collection and regarding the fact that Tabriz, Urmia, and Ardabil were divided into five, three, and three educational districts, respectively; from each district in Tabriz a total of six schools (30 total), in Urmia three schools (nine total), and in Ardabil three schools (nine total) were selected as samples. The schools had identical chances to be selected, regardless of their student populations.

The schools were selected through a randomized sampling method in all three cities. However, the students of each school were selected through randomized stratified sampling in Tabriz and the convenience method in Ardabil and Urmia (due to lack of coordination with the related offices), considering their grade. The project was reviewed by the Regional Ethics Committee of Tabriz University of Medical Sciences.

In order to determine the students' sources of sexual knowledge, 19 different sources were given to the students through a questionnaire (Table 1) in which they were requested to express their rate

of acquiring sexual knowledge from the sources based on a five-point Lickert scale from “ Never ” to “Very much”.

Table 1. Sexual knowledge sources

Row	Source
1	Father or mother
2	Sister
3	Brother
4	Aunt
5	Uncle or his wife
6	Cousins
7	Close friends
8	Boy/girl friend
9	Books or magazines published in Iran
10	Foreign books or magazines
11	School trainings
12	Foreign movies and CDs
13	Iranian public TV
14	Pictures related to sexual issues
15	Satellite or internet
16	Clergies
17	Physicians
18	Accidental from strangers
19	Counseling centers

The five-point Likert’s scale was as follows: “never = 0”, “very little = 1”, “to some extent = 2”, “much = 3”, and “very much = 4”. The mean for each source was determined. If the calculated mean was less than “2”, the source was considered as a less effective one in sexual knowledge acquirement. Conversely, the more the mean was over “2”, a greater effect was considered. The face and content validity of the questionnaire was approved by experts in the field of psychiatry, psychology and sociology, and by reviewing related articles.

For facilitation of data analysis, the five-point scale was divided into a three-point scale. We used the options “never”, “little” (including “very little” and “to some extent” out of the five point scale) and “much” (including “much” and “very much”) to indicate the rate of the acquisition of sexual knowledge.

Additionally, based on the classification of 19 different sources given to the students, seven major groups were determined as follows:

1. Close and intimate friends
2. Pictures, magazines, and books
3. Audio-visual devices
4. School trainings

Table 2. Ranking and percentage frequency of major sources of gaining sexual knowledge

Rank	Sources	Never	Little	Much	Mean
1	Close and intimate friends	31	46	23	2.10
2	Pictures, magazines and books	41	35	24	2.00
3	Audio-visual devices	43	35	23	1.95
4	School trainings	36	44	20	1.90
5	Physicians, clergymen and counseling centers	53	33	14	1.60
6	Family	71	15	14	1.40
7	Close relatives	69	37	4	1.30

Table 3. Percentage frequency of the major sources of acquiring sexual knowledge separating females and males

Row	Source	Never		Little		Much	
		Female	Male	Female	Male	Female	Male
1	Family	61	75	22	15	7	10
2	Close relatives	73	51	23	34	4	15
3	Close and intimate friends	37	24	51	39	12	37
4	Pictures, magazines and books	43	32	37	49	20	19
5	Audio-visual devices	47	39	41	44	12	17
6	Physicians, clergymen and counseling centers	71	65	25	30	4	15
7	School trainings	34	30	43	51	23	19

5. Physicians, clergymen, and counseling centers
6. Family
7. Close relatives

Results

In Table 2 the data of the seven major groups are shown. In accordance with this table the top sources in gaining sexual knowledge is the group of “close and intimate friends” followed by “pictures, magazines, and books”.

Through Chi-square testing significant statistical differences among the major sources of acquisition of sexual knowledge were seen.

Based on the Kruskal-Wallis test the percentage differences between male and female school students were significant for the following sources: family ($P=0.007$); close relatives ($P=0.005$); close and intimate friends ($P=0.0001$); pictures, magazines, and books ($P=0.003$); and audio-visual devices ($P=0.017$).

However, the percentage differences between male and female students for physicians, clergies, and counseling centers ($P=0.245$) and school trainings ($P=0.115$) were not significant (Table 3).

Discussion

Our results indicated that the most common source of acquiring sexual knowledge among students was “close and intimate friends”, followed by “pictures, magazines and books”. The third most frequent source was “audio-visual devices” in acquiring sexual knowledge. These are compatible with the results obtained by Noohi et al. among couples attending marriage counseling centers in Tehran.⁸

As far as we know, the number of studies on this topic is limited in Iran. According to foreign literature, in most countries in which the related studies have been done, the most common sources of gaining sexual knowledge are considered to be “friends”, “peers” and “media” (audio-visual media or publications). A study in South Africa among school students showed that media such as radio and television, and publications were the primary sources of information about AIDS and high-risk sexual behaviors. However, most of the students preferred to get their information from healthcare staff.⁹

In Nigeria, research on adolescents showed that

electronic media (radio and television) were the most common sources of acquiring knowledge about AIDS.¹⁰ In Turkey a study on adolescents revealed that the most common sources were “media” (visuals and publications) and “friends”.¹¹ In a study done in China on medical students, it was determined that sexual knowledge in 59% of the cases was obtained through “magazines” and “booklets”, 25% through “movies and radio”, 12% through “school” and 3 – 4% through parents’ limited knowledge.¹² The results of another study in China on adolescents showed that in 60.4% of the cases the acquisition of sexual knowledge was through “publications”, 19.8% through “school”, and 15% by “other individuals”.¹³ In Sweden, high school students with an average age of 17.4 years announced that “school teachers” and “individual self-study” were the best sources of gaining information about sexual issues. Female school students depended more on friends and family members than males.¹⁴ A research in the US showed that 13 to 14-year-old girls were more likely to speak about their sexual behavior with their relatives (other than parents) than 17- to 19-year-old girls.¹⁵

Overall, the present results, along with other similar studies about acquisition of sexual knowledge of adolescents, indicate that two major important and confident sources for adolescents are “parents” and “school”, which do not necessarily have useful and effective roles. But close friends, pictures, magazines and books, and audio-visual devices (CDs, satellite programs, and internet) have been shown as the major sources of sexual knowledge and it is not clear to what extent they are reliable.

Research shows that essentially “parents” and “school” play an effective role in the field of adolescents’ sexual behaviors. A research done on adolescents aged 9 to 17 years that studied parents’ influence on their sexual behavior indicated that the adolescents who reported their parent’s high supervision were less likely to experience sexual relations before adolescence in addition to a reported lesser rate of beginning sexual relations with increasing age. In addition, adolescents who reported a high rate of supervision from their parents with a high rate of communication were less likely to experience anal intercourse. The results of this research showed that intervention by parents for the enhancement of supervision and communication with children about

the risks of sexual behavior is considered to be a hopeful strategy for health promotion.¹⁶

In addition, close and intimate communication between children and parents along with parental values against adolescents' sexual relations reduces the risk of adolescent unwanted pregnancies.¹⁷

On the other hand, the comparison of the effect of parents' permissiveness with their supervision and control over adolescents' risky sexual behavior indicated that in high levels of parental permissiveness, girls will be more likely have risky sexual behavior than boys. In low levels of permissiveness, risky sexual behaviors between boys and girls were not different. These results emphasize the need for preventive programs against high-risk sexual behaviors that focus on family.¹⁸

Regarding the effect of school programs on adolescents' sexual behavior, research results support several general conclusions of which educational programs concerning sexuality and HIV do not enhance sexual behavior, but in some instances reduce sexual activity and increase the use of contraceptive methods. Additionally students' engagement in school activities, their interest in school and having future plans for continuing their higher education are related to lesser high-risk sexual behaviors.¹⁹

Participation in school athletic activities, especially for girls and in artistic programs, particularly for boys are related to low rates of adolescent sexual activity.²⁰ Therefore, schools can reduce unpleasant sexual behaviors through appropriate educational programs about sexual issues, planning different school activities (including extracurricular activities), and providing an attractive environment in school.

Based on the results of our study, the following suggestions should be taken into consideration:

1) Adolescents should be trained about different sexual fields and they should gain knowledge through their parents' help, as well as school or available resources and centers in the community. For this purpose, parents should be trained in appropriate and effective communication skills. 2) Schools need to have an educational program in different levels, particularly in high school according to the students' cognitive, emotional, and social development. Schools should teach students the components of sexual education in the form of codified programs or curriculum during school years.

3) On the other hand physicians, professional healthcare staff and family planning clinics in the community can play an important role about teaching sexual issues. Regarding this, providing more health centers in the community, in addition to continuing education of physicians and professional people involved in adolescent sexual issues seem to be more vital in this field. 4) Mass media can be helpful in teaching about adolescents' sexual issues and can potentially change people's views and attitudes about sexual issues in order to have safe and confident sexual relations.

References

1. Atkinson RL, Atkinson RC, Smith EE, Bem DJ, Hoeksema SN. *Hilgard's Introduction to Psychology*. Philadelphia: Harcourt College Publishers; 2000: 367 – 374.
2. Al-Hurr al-Aamili. *Wasael ush-Shia*. Vol. 5. Tehran: Maktab-Eslam Publication Co.; 1995: 16.
3. Hagan JF, Coleman WL, Foy JM. Sexuality education for children and adolescents. *Pediatrics*. 2001; **108**: 498 – 502.
4. Okonkwo JE, Obionu C, Uwakwe R, Okonkwo CV. Sources of sexual information and its relevance to sexual behavior in Nigeria. *West Afr J Med*. 2002; **21**: 185 – 187.
5. Dilorio C, Kelley M, Hockenberry-Eaton M. Communication about sexual issues: Mothers, fathers and friends. *J Adolesc Health*. 1999; **24**: 181 – 189.
6. Mohammadi MR, Mohammad K, Farahani FK, Alikhani S, Zare M, Tehrani FR, et al. Reproductive knowledge, attitudes and behavior among adolescent males in Tehran, Iran. *Int Fam Plan Perspect*. 2006; **32**: 35 – 44.
7. Marita N, Baxi RK, Hazra M. Adolescent sexuality education and sources of information. *Indian J Matern Child Health*. 1994; **5**: 95 – 98.
8. Noohi S, Azar M, Shafiee-Kandjani AR, Tajik A. Knowledge and beliefs of couples attending marriage counseling centers toward correct sexual relationships [in Persian]. *Hayat*. 2007; **13**: 77 – 83.
9. Buseh AG, Glass LK, Mc Elmurry BJ, Mkhabela M, Sukati NA. Primary and preferred sources for HIV/AIDS and sexual risk behavior information among adolescents in Swaziland, Southern Africa. *Int J Nurs Stud*. 2002; **39**: 525 – 538.
10. Asuzu MC. Sexual beliefs, attitudes, and knowledge of adolescent youths in Ibadan concerning AIDS. *West Afr J Med*. 1994; **13**: 245 – 247.
11. Gokengin D, Yamazhan T, Ozkaya D, Aytug S, Ertem E, Arda B, et al. Sexual knowledge, attitudes,

- and risk behaviors of students in Turkey. *J Sch Health*. 2003; **73**: 258 – 263.
12. Cao Y, Zhou X, Wang XQ, He QW, Lui ZP, Yang YH, et al. Sexual knowledge, behaviors, and attitudes of medical students in Kunming, China. *Psychol Rep*. 1998; **82**: 201 – 202.
 13. Jiang S. A survey of the sexual values and behavior among urban unmarried young people in the nineties. *Chin J Popul Sci*. 1997; **9**: 265 – 268.
 14. Persson E, Sandstorm B, Jarlbro G. Sources of information, experiences, and opinions on sexuality, contraception, and STD protection among young Swedish students. *Adv Contracept*. 1992; **8**: 41 – 49.
 15. Pistella CL, Bonati FA. Communication about sexual behavior among adolescent women, and their family, and peers. *Fam Soc*. 1998; **79**: 206 – 211.
 16. Romer D, Stanton B, Galbraith J, Feigelman S, Black MM, Li X. Parental influence on adolescent sexual behavior in high-poverty settings. *Arch Pediatr Adolesc Med*. 1999; **153**: 1055 – 1062.
 17. Miller BC. Family influences on adolescent sexual and contraceptive behavior. *J Sex Res*. 2002; **39**: 22 – 26.
 18. Donenberg GR, Wilson HW, Emerson E, Bryant FB. Holding the line with a watchful eye: the impact of perceived parental permissiveness and parental monitoring on risky sexual behavior among adolescents in psychiatric care. *AIDS Educ Prev*. 2002; **14**: 138 – 57.
 19. Kirby D. The impact of schools and school programs upon adolescent sexual behavior. *J Sex Res*. 2002; **39**: 27 – 33.
 20. Sabo DF, Miller KE, Farrell MP, Melnick MJ, Barnes GM. High school, athletic participation, sexual behavior, and adolescent pregnancy: a regional study. *J Adolesc Health*. 1999; **25**: 207 – 216.

Archive of SID