Journal of Adolescent Health 55 (2014) 107-113



JOURNAL OF ADOLESCENT HEALTH

www.jahonline.org

Original article

Assessing Iranian Adolescent Girls' Needs for Sexual and Reproductive Health Information



Seyed Abbas Mosavi, M.D. a, Raheleh Babazadeh, Ph.D. candidate b,*, Khadijeh Mirzaii Najmabadi, Ph.D.^c, and Mohammad Shariati, M.D.^d

- ^a Research Center Of Psychiatry, Golestan University Of Medical Sciences, Gorgan, Iran
- ^b Department of Reproductive Health, Shahroud University of Medical Sciences, Shahroud, Iran
- ^c Department of Midwifery, Faculty of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran

Article history: Received March 28, 2013; Accepted November 27, 2013 Keywords: Adolescent girls; Qualitative study; Sexual and reproductive health; Information; Iran

ABSTRACT

Purpose: To explore the views and experiences of adolescent girls and key adults regarding the necessity of providing sexual and reproductive health (SRH) information and services for adoles-

Methods: This was a qualitative study; the data were coded and categorized in content analysis by MAXQDA10 and were gathered through focus groups with adolescent girls and their mothers and semi-structured interviews with school counselors, sociologists, health providers, state and nongovernmental directors of health programs, clergy, and health policy makers in the Iranian cities of Mashhad, Tehran, Shahroud, and Qom.

Results: There were six main reasons for the need to provide SRH services for adolescent girls: a lack of adequate knowledge about SRH, easy access to inaccurate information sources, cultural and social changes, increasing risky sexual behaviors among adolescents, religion's emphasis on sex training of children and adolescents, and the existence of cultural taboos.

Conclusions: Most participants confirmed the necessity of providing SRH services for adolescent girls, so instead of talking about provision or non-provision of these services, it is important for policy makers to plan and provide SRH services that can be consistent with cultural and religious values for adolescent girls.

© 2014 Society for Adolescent Health and Medicine. All rights reserved.

IMPLICATIONS AND CONTRIBUTION

Most participants confirmed the necessity of providing SRH services for adolescent girls; it is recommended that instead of talking about provision or non-provision of these services, policy makers try to plan and provide SRH services that can be consistent with cultural and religious values for adolescent girls.

Adolescence is an age of challenges and opportunities [1]; today, the transition to adulthood, without adequate awareness about sexual and reproductive health (SRH) information and services, is much more difficult than before [2]. In Iran, SRH services are integrated into the primary health care network, which covers the entire country with more than 2,186 urban health centers, 2,407 rural health centers, 1,666 health posts, and 17,325 health houses.

E-mail address: raheleh621@yahoo.com (R. Babazadeh).

After the International Conference on Population and Development in 1999, Iran agreed to teach adolescents about health, even sexual health, in a manner consistent with its religious values [3]. The government has concentrated its SRH programs (except in premarital counseling centers) mostly on married women of reproductive age; thus, because of a lack of confidentiality and sufficient trained health workers, adolescents shy away from SRH services [4]. Although a number of educational programs, such as puberty, family life, human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS), and life skill, have been developed for unmarried adolescents [3], these are not enough and are inefficient, and there is no sex education in the school curriculum.

^d Department of Community Medicine, School of Medicine, Tehran University of Medicine Sciences, Tehran, Iran

^{*} Address correspondence to: Raheleh Babazadeh, Ph.D. candidate, Department of Reproductive Health, Shahroud University of Medical Sciences, Hafte teer Square, Shahroud, Iran.

Non-governmental organizations (NGOs) activities regarding adolescent SRH issues are small-scale; therefore, provision of SRH services to unmarried adolescents is limited mostly to pharmacies and private health services, even though nearly 16.33% of the total Iranian population are 10–19 years of age (a vulnerable age group). Almost no systematic data have been collected about adolescents' knowledge of SRH or their risk behaviors.

The results of many micro-studies indicated that a significant proportion of Iranian adolescents are not aware of SRH services, and that whatever knowledge they have is superficial and incomplete [5-7]. In recent years, Iran has been faced with demographic, social, and cultural changes; these changes have caused early sexual awakening and have come into conflict with traditional customs and values. In Iran, marriage is the only ground for expression of sexuality that has been accepted by society. Premarital or extramarital sexual relations are forcefully disapproved and considered illegitimate [8], but a number of studies have shown that despite religious and societal disapproval, some Iranian adolescents initiate sex before marrying, and so are at risk of contracting HIV and sexually transmitted diseases [9]. Hence, a strong focus on adolescents' SRH services appears to be necessary. Nevertheless, Iranian policy makers are ambivalent about adolescents' SRH, because in that country, the concept of adolescents' SRH is new and controversial. Of course, it seems that policy makers are worried about how people would respond if they encouraged unmarried adolescent girls to use SRH information and services. For example, one said, "Some people think that teaching of SRH can lead to early puberty, can cause of youth indecency, and can also promote sexual experimentation among some at-risk youth, or can increase promiscuity among sexually active youth."

The purpose of this study was to explore the views and experiences of adolescent girls and key adults regarding the necessity of providing SRH information and services for adolescent girls in Iran.

Methods

This qualitative descriptive study was carried out with 318 respondents from different backgrounds and expertise levels in Tehran, Mashhad, Shahroud, and Qom from February to November 2012. (Tehran is the capital of Iran, the location of the main policy makers in the Ministry of Health (MOH) and the center of Iranian and international NGOs; Mashhad and Shahroud are respectively a big and a medium city in Iran with a different ethnic and cultural majority. In addition, one of the youth friendly services pilot sites was in Mashhad. Qom is the main religious city in Iran.)

Table 1 lists the sample sizes and characteristics of the study population. Key adults and adolescents were respectively selected using purposive and snowball and by applying a multistage cluster sampling method.

Data collection tools were developed after a thorough review of related literature and World Health Organization guidelines [10,11]. Afterward, different interview questionnaires were used to collect participants' information, when necessary, probing and note taking were done.

Information sources were triangulated to improve the reliability of the collected data; the adequacy of the sample size was based on the saturation of the collected data.

Adolescent girls and their mothers came from diverse socioeconomic situations. All mothers except one were literate. Each focus group discussion consisted of about six to 12 participants; the duration of each averaged 59 minutes and the length of an indepth semi-structured interview was about 35-60 minutes. Table 2 shows the main focus of the investigation. Eligible adolescent girls were 14-19 years of age, had never married, and lived with parents. Table 3 lists the ages of participating adolescent girls. Students were in Grades 8-12, with different fields of study. Some of them were themselves peer educator of HIV; therefore, there was homogeneity within groups and heterogeneity between groups (for age, grade, field of study, and socio-economic situation). Eligible health service providers were those who had worked at the YFS facilities. The sample of sociologists and clergies was based on their practical experience with adolescents' health issues.

The study was approved by the local ethics committee. Participation was voluntary, all participants were informed of the study's purposes, and verbal consent was obtained. In addition, participants were informed that if they felt embarrassed at any time, they were free to withdraw from participation; full anonymity was also ensured during the FGD and interviews.

All interviews and focus groups were recorded using two digital recorders, with the consent of the interviewees. Then, they were transcribed and compared with handwritten notes. As is usual in content analysis, data were coded and categorized using MAXQDA 10 (VERBI Software. Consult. Sozialforschung. GmbH, Marburg/Germany) (Figure 1). The perception of participants and experts regarding the study's findings was similar to the researchers' perception (based on member checking and peer debriefing).

Results

On the basis of this study, the main reasons for the need to provide SRH services to adolescent girls were divided into six categories.

Lack of adequate knowledge about sexual and reproductive health

All participants in the study noted that a significant part of adolescent girls did not have adequate knowledge about SRH issues. They emphasized the need to provide required training, and then to inform adolescents about the consequences of sex outside of marriage, and finally to empower youth regarding those necessities (Table 4, Quotation 1). This study also showed that awareness of some adolescent girls regarding sexual abstinence and intercourse was significantly low (Table 4, Quotations 2 and 3).

Easy access to inaccurate information sources

The study showed that the primary information source of adolescent girls regarding sexual matters was their friends, who had an important role in providing insufficient and false information. Most teenagers confessed that this information was not always correct, and pointed out that it would be better if they were informed about sexuality by their mothers (Table 4, Quotation 4). Iranian media do not provide any sexuality education matters, but access to information and communication technology such as satellite television, the internet, e-mail and mobile phones is much easier than in the past, and the adolescents are increasingly exposed to information about sexuality, much of which is wrong and harmful (Table 4, Quotation 5). All

Table 1Characteristic and sample size of study participants

Study participants	Size	Study method	Place of interview
Government representatives			
Main policy makers in Ministry of Health	6 M	In-depth, semi-structured, individual interviews	Interviewees' office (Tehran)
	2 F		
Health program directors	4 M 5 F	In-depth, semi-structured, individual interviews	Interviewees' office (Tehran, Mashhad, Shahroud)
Non-governmental organization health program directors			
International (United Nations International Children's	1 M	In-depth, semi-structured, individual interviews	Interviewees' office (Tehran)
Emergency Fund, United Nations Population Fund, International Planned Parenthood Federation)	2 F		
National (Family Planning Association of Iran)	1 F 1 M	In-depth, semi-structured, individual interviews	Interviewees' office (Tehran)
Local (Health and Reproductive Rights Association)		In-depth, semi-structured, individual interviews	Interviewees' office (Tehran)
Key informants			
Religious leaders	7 M	In-depth, semi-structured, individual interviews	Interviewees' office (Qom, Mashhad)
Health service provider	1 M	In-depth, semi-structured, individual interviews	Health center (Mashhad)
	2 F		
Mothers	26	Focus groups	School (Mashhad, Shahroud)
Teachers	11 F	In-depth, semi-structured, individual interviews	School (Mashhad, Shahroud)
Sociologists	2 M	In-depth, semi-structured, individual interviews	Interviewees' office (Mashhad)
Adolescent			
Non-peer education	230 F	Focus groups	
Peer education	17 F		School (Mashhad, Shahroud)
Total	318		

F = female; M = male.

clergy participants indicated that some media have had a destructive influence. They believed that to avoid further damage to adolescents, correct information should be given to them (Table 4, Quotation 6).

Cultural and social changes

From the participants' viewpoints, social and cultural changes such as decreasing age at menarche, rising age at marriage,

increasing participation of women in society, urbanization and modernization, and widespread access to media and their influence on adolescents have caused increased relationships with the opposite sex and premarital sexual experiences among Iranian adolescent girls, so that having a boyfriend is valued among many of them (Table 4, Quotations 7–9).

Based on the study results, among social issues that suggest the need to teach SRH to adolescent girls is the increasing gap between generations, because parents do not know crisis management procedures for youth (Table 4, Quotation 10).

Table 2Study participants and main focus of investigation

Study participants	Mean age, years	Location	Main focus of investigation
Government representatives Non-governmental organization health program directors Key informants	47.42 50.4	Tehran, Mashhad, Shahroud Tehran	Extent and characteristics of risky sexual behavior among adolescents Existing policy and program strategies to meet needs Access to reproductive health care services for related problems Constraints faced by officials in planning programs for adolescents
Religious leaders Health service provider Mothers Teachers Sociologists	52.75 40.33 36.65 40.44 39.5	Qom, Mashhad Mashhad Mashhad, Shahroud Mashhad, Shahroud Mashhad	Perspectives regarding future programs and services and recommendations for improvement View of religion about ASRH information and services Knowledge and attitudes about ASRH services Most common reproductive health problem of adolescents Prevalence of risky sexual behavior among adolescents Involvement in health education in school
Adolescent	16.11	Mashhad, Shahroud	Most common reproductive health problem of adolescents Discussed sex-related matter with mother Opinions about YFS and expanding ASRH services Protective practices Peer influences Feelings about sex School sex education Sexual pressure Talking about sex with friends Main sources of information Sexual risk taking

ASRH = adolescent sexual and reproductive health.

Table 3 Age of participating adolescent girls

Age, years	N (%)	Grade
14	13 (5.26)	8
15	68 (27.53)	9
16	77 (31.17)	10
17	55 (22.26)	11
18	34 (13.76)	12
Total	247 (100)	

Increasing risky sexual behaviors among adolescents

According to participants, factors such as officials' inadequate attention to adolescents' SRH, inadequate or inappropriate information and knowledge of adolescents, age, weakness of religious beliefs among some adolescents, the desire to be modern, poor family communication, and the unsuitable influence of some media explain why Iranian adolescent girls are involved in risky sexual behaviors that expose them to hazardous and undesirable consequences such as sexually transmitted infections (STI) including HIV/AIDS and illegitimate pregnancies. They believe that because adolescents' sexual issues are ignored, it will not be possible to achieve the desired results, and a time will come when the injuries will become so serious, it will be too late to remove them. Therefore, to reduce adolescents' vulnerability, education and necessary services should be given to them (Table 4, Quotation 11).

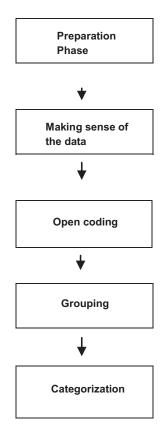


Figure 1. Preparation, organizing, and results phases in the content analysis process.

The findings of this study reveal that there are myths among adolescent girls that increase undesirable sexual consequences between them (Table 4, Quotation 12). The findings also show that some social and cultural norms, such as the need to remain a virgin until marriage, the lack of social acceptance of premarital pregnancy, and boyfriends' pressure on girlfriends to prove their love, cause the prevalence of abnormal and harmful sexual activity among adolescent girls (Table 4, Quotations 13 and 14). When participants were asked about the type of risky behaviors among adolescents, some said, "It is an unsafe sex and an addiction" (Table 4, Quotation 15).

Religion's emphasis on sexuality training of children and adolescents

All clergy participating in the study stated that religion recognizes sexual instinct as God's gift, and that religion has a plan for people's sexual life from the time of conception to the next steps of their life; therefore, the prophets and religious leaders have given directions for people's sexual life in their teachings. One clergyman who wrote a book about sexual education based on religion cited total damage prevention to the spiritual health of adolescents as a reason for the necessity of sexual education from a religious viewpoint (Table 4, Quotation 16). A policy maker also pointed to the role that religion has for parents, and that they should openly discuss SRH issues with their children (Table 4, Quotation 17). According to the religious point of view, human sexuality matters must be taught in a modest manner (Table 4, Quotations 18 and 19).

Existence of cultural taboos

This study showed that important reasons for providing SRH services to adolescent girls are derived from cultural barriers such as adolescents hiding SRH problems, parental ignorance and indifference about adolescents' SRH needs, poor parent—adolescent relationships owing to shyness, incorrect judgment, lack of adequate information, and the fear of being thought promiscuous. Most mothers thought that adolescents should be informed about sexuality at the time of marriage (Table 4, Quotation 20). Some mothers wanted more information about these matters (Table 4, Quotation 21). Some also had incorrectly judged their daughters (Table 4, Quotation 22), and some were ignorant and indifferent about adolescents' SRH needs (Table 4, Quotation 23).

Discussion

Based on most participants' viewpoints, the most important problems related to adolescents' SRH were the lack of accurate information, especially about the consequences of premarital sex, and unawareness of healthy sexual behavior. These problems were reported in other studies in Iran and other developing countries [5,7,12,13]. For example, in one study, 81% of adolescents between 14 and 18 years of age agreed that HIV/AIDS was preventable through vaccinations, and 43% said that HIV/AIDS was curable if diagnosed early [5].

Less-empowered groups are at a higher risk of acquiring an STI or HIV infection and having other negative outcomes. Having accurate information increases the chances of making a responsible and free decision in the field of sexuality [14]. An adolescent girl has the right to obtain quality and accurate

Table 4Quotations from participants

- 1 "Currently, the most common problems of adolescent girls on sexual reproductive health are unawareness of healthy sexual behavior, unawareness of issues related to risky sexual behavior, and unawareness of sexually transmitted diseases and their risks in the long term ... so these adolescent girls especially who have high-risk behavior need to specific strategies and programs ... If we doubt, it will be too late ... the time to intervene is the same time." (Policy maker, male, 56 years of age)
- 2 "Sometimes I have a high desire to form relationships with the opposite sex, but I don't know how to control myself." (Girl, 15 years of age)
- 3 "I do not know how to deal with a guy, and what should I do on the wedding night?" (Girl, 16 years of age)
- 4 "We shouldn't confide in our friends who know everything to explain these kinds of matters for us, because our friends have the same age and situation ... We should get counseling from an older one." (Girl, 16 years of age)
- 5 "The last year, one of my friends brought many movies into school on her mobile phone. ... I watched two of them. They were very immodest. My mind completely changed. I had not felt well and I was involved in mental problems." (Girl, 16 years of age)
- 6 "Nowadays, everything is available to children; therefore, if we do not give proper information in these fields, they will be misinformed. ... In this case, they will deviate." (Clergyman, 54 years of age)
- will deviate. (Clergyffian, 54 years of age)
 7 "One time girls were ashamed to tell that they had a boyfriend and hid it, but now they are talking freely about it and aren't embarrassed." (Girl, 17 years of age)
- 8 "In the past, there was no gap between sexual maturity and marriage, but now the age of menarche has come down, whereas the age of marriage has gone up, so there is a wide gap between sexual maturity and marriage; there is a strong sexual need in this gap, which can be a reason for increasing premarital sexual activity." (Policy maker, male, 47 years of age)
- 9 "Almost half these adolescents have a relationship with the opposite sex ... Of course, these statistics that I give you vary in different regions and cities, in fact, in cities more modern cities, this relationship become further intense; this actually is the phenomenon of modernism." (Sociologist, 35 years of age)
- 10 "Nowadays, our society is so stressed out, and life was easier in the past because the side risks were low ... but now, there are many traps and hazards. ... Our younger generation should have a counselor. Many of them can't get answers to their questions by the families." (Clergyman, 57 years of age)
- 11 "The prevalence of high-risk behaviors is high among our adolescent girls and we should accept this as a fact, although it is bitter ... The most important factor is age ... this age is the one in which sexuality behaviors reach their zenith ... I think these behaviors should be managed not so that we don't want to see them. ... If we do so, we will reach a point where it is not repairable." (Policy maker, male, 56 years of age)
- 12 "I have a girlfriend who is conscious of risks, but she thinks that this problem occurs for a certain number, and she doesn't want to believe that these consequences may be occur for her." (Girl, 17 years of age)
- 13 "Some adolescent girls—for their boyfriend's satisfaction—engage in some behaviors other than vaginal intercourse as a strategy to retain their virginity, which are very harmful to them." (Health service provider, female 36 years of age)
- 14 "We have unmarried adolescents who face with unwanted pregnancy and do not have access to health care; hence, some of them commit suicide, some run away from home, and some have an illegal abortion." (National governmental organization health program director, female, 56 years of age)
- 15 "I think one is addiction and the other is unsafe sex. Of course, statistics show these. It is not just my opinion. The age is going down in sexually transmitted disease and human immunodeficiency virus. That's too bad." (National governmental organization health program director, female, 53 years of age)
- 16 "We have a duty to our religious views while children grow older. Both girls and boys are taught religious principles in relation to sexual relationships to prevent injury, because injury in sexual issues is injury to public and religious morals." (Clergyman, 54 years of age)
- 17 "I remember one day when I was 13–14 years old, my mother called me to talk about puberty issues and events that would happen for me during puberty, and what I should do. Certainly, when my mother was talking to me, it was very hard for her to say these words, but because she is a religious woman, she thought it was her religious duty." (Policy maker, male, 51 years of age)
- 18 "Those who think that sex education is not permitted in religion are completely wrong. Religion has a lot of rules about many aspects of human sexuality, but as with knowledge, it must be taught in a modest and moral manner." (Counselor teacher, 35 years of age)
- 19 "It is necessary to teach our children before deviating; Imam Ali, one of the greatest religious leaders, says: 'Help your children before the deviants divert them.'

 If you tell them about sexuality matters in a correct manner, because human nature is consistent with these correct teachings, these teachings do not create any deviance." (Clergyman, 47 years of age)
- 20 "In my opinion, this education should never be given, because the children will become impudent and barefaced! It is better that all things be said to them right before marriage, because that is the time when they need it." (Mother, 46 years of age)
- 21 "We don't have adequate information about such things and so don't know what things we should tell our girls concerning those matters ... If we are taught the necessary education, we will be able to talk to our girls and teach them." (Mother, 40 years of age)
- 22 "One student said, 'If I tell my mom that my menstruation has stopped, she will kill me [will become too angry].' ... I think it must be a place in which the students can get counseling." (Counselor teacher, 43 years of age)
- 23 "Parents never consider sexual issues as a need of adolescents ... What is important for them is that their children have a degree, money, and reputation." (Governmental health program director, male 56 years of age)

information about SRH services to make correct and responsible decisions regarding her SRH needs [15]. The results of this study showed that a major source of adolescents' information about puberty was their mothers and close relatives; their source for sexual matters was their friends, who were unreliable, as they themselves pointed out. These findings are consistent with previous studies [16].

Okonkwo et al. [17] revealed that the prevalence of premarital sex among adolescents who obtained sexual information from their friends was higher than for those who obtained information from other sources.

Satellite television and the internet were other unreliable sources of information with permissive attitudes toward sex. These findings are consistent with other research conducted in Iran [8].

Currently, Iranian adolescents are stimulated by the international media regarding sex, sexuality, new ideas about love, and permissive attitudes, although they lack adequate information about SRH. This study showed that greater reach to international media and their influence were factors that increased premarital sexual behavior among adolescents. These findings are similar to the study by Brown et al., which showed that exposure to sexual content in the mass media increased adolescents' risk of being involved in early sexual intercourse and accelerated their sexual activity [18].

In this study, when adolescents were asked about their preferred source of sexual information, they preferred their mothers, as was reported in international studies [19].

In Iran, traditional beliefs restrict the dialogue and discussion regarding correct information on SRH in the household and community. Some girls are afraid to talk to their mothers about sexual and reproductive problems because of the assumption that if their mothers found out that their daughters had already

engaged in a sexual relationship, they would worry. These problems were also pointed out in previous research [20].

In Iran, in reality the familial atmosphere is not generally suitable for communicating about sexual matters. Most adolescent girls and their parents become embarrassed and uncomfortable when discussing sexual issues with each other. Many people, including adolescents' parents, tend to believe that giving information about sexuality to adolescents will lead to increased sexual activity and will encourage them to become promiscuous, although a number of studies indicate that the opposite is true [21].

International studies have shown that adolescents can be protected from risky behaviors by improving the quality of communication between their parents and themselves [19,22,23]. For this purpose, the MOH should provide necessary information to parents and should empower them to support their adolescents. It is usually assumed in Iranian society that premarital sexual contact does not occur among adolescents [8]. Because of the lack of a system for collecting data for adolescent reproductive health, it is difficult to measure the prevalence of premarital sex in Iran. Nevertheless, according to undocumented evidence, the rate of premarital sex among adolescents in Iran is low compared with developed countries. The cause of this low rate is strong religious, cultural, and legal barriers [24]. However, Iran is facing a critical phase in its HIV epidemic.

The Quarterly Reports of Iran's MOH (2009) pointed that 51% of females who tested positive for HIV are 15–34 years of age, and the proportion of reported HIV cases through sexual transmission has increased [25]. Because of the long incubation period of HIV, there is a likelihood that risky behaviors may be started in the early twenties and during adolescence. A number of studies have shown that some Iranian adolescents initiate sex before marrying, and are at risk of contracting HIV and STI.

Garmaroudi et al. [9] showed that the rate of heterosexual relationships between high school adolescents was 20%; their study was consistent with studies in other countries whose culture was similar to Iran's [26].

In recent years, increasing urbanization and modernization seem to have gradually destroyed societal and cultural traditions and customs that formerly controlled adolescents' sexual behaviors. Consequently, because of reduced parental control, girls and boys are finding more opportunities to be together and to share time with each other, so it is natural that they develop sentimental and physical intimate relationships. Studies have shown that having a boyfriend or girlfriend increases the likelihood of adolescents engaging in sexual activity [27,28]. In addition, based on other countries' experiences, these changes are likely associated with increased rates of premarital sexual activity and their negative consequences among adolescents [29–31].

In Iran, the age of menarche has decreased while the age of marriage has increased. Hence, there is an enlarged gap between sexual maturity and marriage. However, preserving virginity until marriage is strongly valued, and girls try to remain virgins because a virgin wife is preferred by boys. In addition, a major factor enhances the levels of objective risk among adolescents is a subjective feeling of invulnerability [32] that exists among some adolescent girls. Because of these factors, some of participants said that some adolescent girls are subject to dangerous practices such as anal intercourse.

As Sharma [30] showed, modernism and the long gap between menarche and marriage have potentially generated a

liberal culture for making sexual and reproductive decisions among adolescents, and have also led to a higher prevalence of premarital sexual activity among Indian adolescents.

Exposure to international media has widened the generational gap between parents and their adolescents and has altered the ways in which adolescents receive information and shape their behaviors.

The current study showed that liberal norms of peer groups are consistently associated with the prevalence of premarital relationships with the opposite sex and with sexual behaviors. Earlier studies have shown that adolescents' sexual behaviors, such as the sexual debut and the initiation of sexual activity are influenced by peer group norms [33–37].

From the religious viewpoint, sexuality is God's endowment, and learning about sexual matters within its religious framework is a religious requirement that the religion's followers have a religious obligation to know. From a religious viewpoint, giving information to adolescents about sexual matters and moral values regarding sexual conduct, and openly discussing SRH issues with them is the parents' duty. Especially nowadays, the educational activities of parents to counter the dominant information that adolescents obtain through the mass media should be considered a necessity to enable them to deal with peer pressure [20]. However, this study's findings indicate that most mothers are unwilling to talk to their adolescents about sexuality because of embarrassment and discomfort. Other studies have shown that adolescents rarely receive information about sexual issues from their parents [12,20,38,39]. Thus, it can be a justification for doing high-risk behaviors in adolescents because of receiving the incorrect information from unreliable sources [19,23].

The Ministry of Health can create parent training programs within the total context of religious and cultural teaching so that the parents obtain necessary information coordinated with religion and culture about sexuality. Parent training programs can significantly improve parents' awareness and frequency of communication with their adolescents [15,40].

The most important finding of this study was that most participants agreed about the necessity of providing SRH information and services for adolescent girls. They especially emphasized the need to inform about the consequences of premarital sex, and to empowering adolescents. Provision of this information and these services should be a priority not only for medical concerns, but also from religious, social, and developmental perspectives.

The current study had several limitations. It was a qualitative study; thus, generalization of the findings was limited. It focused only on unmarried adolescent girls in high schools; if it had included out-of-school adolescent girls and those who had married, it would have had more comprehensive results. A similar study is recommended for adolescent boys. Finally, when a country is multicultural and multi-ethnic, more widespread research should be conducted to representing its different regions and communities. Nevertheless, the research findings highlight the necessity of providing SRH information and services for adolescent girls within a developing country and largely confirm previously conducted studies throughout the world.

In addition to the need to address adolescents' SRH needs and how they prefer to receive information and services regarding these matters, more qualitative studies need to be designed and tested.

Funding Sources

This study was supported by grant No. 9060 from the Shahroud University of Medical Sciences, Iran.

References

- Roy S, Roy S, Rangari K. Comprehensive health care including sexual and reproductive health of adolescents and youths is of vital importance to the nation. Health Popul Persp Issues 2007;30:243

 –67.
- [2] Diop NJ, Bathidja H, Dieng T, et al. Improving the reproductive health of adolescents in Senegal: Frontiers in Reproduction Health Program. Population Council; December 2004.
- [3] Malekafzali H. Population control and reproductive health in the Islamic Republic of Iran. Arch Iranian Med 2004;7:247—50.
- [4] Vakilian K, Mirzaii K. Reproductive health in Iran: International Conference on Population and Development Goals. Oman Med J 2011;26:143–7.
- [5] Yazdi C, Aschbacher K, Arvantaj A, et al. Knowledge, attitudes and sources of information regarding HIV/AIDS in Iranian adolescents. AIDS Care 2006; 18:1004–10.
- [6] Khalaj Abadi Farahani F, Cleland J, Mehryar AH. Correlates and determinants of reproductive behavior among female university students in Tehran. J Reprod Infertil 2012;13:45–57.
- [7] Tavoosi A, Zaferani A, Enzevaei A, et al. Knowledge and attitude towards HIV/AIDS among Iranian students. BMC Public Health 2004;4:17.
- [8] Mohammadi MR, Mohammad K, Farahanilikhani KA, et al. Reproductive knowledge, attitudes and behavior among adolescent males in Tehran, Iran. Int Fam Plann Persp 2006;32:35–44.
- [9] Garmaroudi GHR, Makarem J, Alavi S. Health related risk behaviors among high school students in Tehran, Iran [in Persian]. Payesh J 2010;9: 13–9.
- [10] Improving the accessibility of health services that meet the sexual and reproductive needs of adolescents in school: rapid assessment tool. Available at: http://www.who.int/maternal_child_adolescent/documents/frh_adh_98_18/en/.
- [11] Cleland J. Illustrative questionnaire for interview-surveys with young people: asking young people about sexual and reproductive behaviors illustrative core instruments. Geneva, Switzerland: World Health Organization; 2001.
- [12] Kamau AW. Factors influencing access and utilisation of preventive reproductive health services by adolescents in Kenya: a case study of Murang'a District [PhD Thesis]. Bielefeld: University of Bielefeld, Germany, 2006
- [13] Munthali AC, Chimbiri A, Zulu E. Adolescent sexual and reproductive health in Malawi: A synthesis of research evidence. Occasional Report, New York: The Alan Guttmacher Institute; 2004, No. 15.
- [14] Kolencherry S. Sexual and reproductive health needs of young people: a study examining the fit between needs and current programming responses in India [PhD thesis]. Bielefeld: University of Bielefeld Germany, 2004.
- [15] Berne L, Huberman B. European approaches to adolescent sexual behavior and responsibility: executive summary and call to action. Washington, DC: Advocates for Youth; 1999.
- [16] Masatu MC, Kvale G, Klepp K. Frequency and credibility of reported sources of reproductive health information among primary school adolescent in Arusha, Tanzania. Scand J Public Health 2003;31:216–23.
- [17] Okonkwo JE, Obionu C, Úwakwe R, Okonkwo CV. Sources of sexual information and its relevance to sexual behavior in Nigeria. West Afr J Med 2002;21:185–7.

- [18] Brown JD, L'Engle KL, Pardun CJ, et al. Sexy media matter: Exposure to sexual content in music, movies, television, and magazines predicts black and white adolescents' sexual behavior. Pediatrics 2006;117:1018–27.
- [19] Boutelle K, Eisenberg ME, Gregory ML, Neumark-Sztainer D. The reciprocal relationship between parent—child connectedness and adolescent emotional functioning over 5 years. J Psychosom Res 2009;66:309—16.
- [20] Orgocka A. Perceptions of communication and education about sexuality among Muslim immigrant girls in the US. Sex Educ 2004;4:255–71.
- [21] Coyle K, Basen-Engquist K, Kirby D, et al. Safer choices: Reducing teen pregnancy, HIV, and STDs. Public Health Rep 2001;116(Suppl 1): 82–93.
- [22] Ackard DM, Neumark-Sztainer D, Story M, Perry C. Parent—child connectedness and behavioral and emotional health among adolescents. Am J Prev Med 2006;30:59—66.
- [23] Miller KS, Kotchick BA, Dorsey S, et al. Family communication about sex: What are parents saying and are their adolescents listening? Fam Plann Perspect 1998;30:218–22.
- [24] Mohammad K, Khalaj Abadi Farahani F, Mohammadi MR, et al. Sexual risk-taking behaviors among boys aged 15–18 years in Tehran. J Adolesc Health 2007;41:407–14.
- [25] Better practices for women, children and AIDS. Profiles in equity. Available at: unicef.org/aids/files/Profiles_in_Equity_FINAL_June01.pdf.
- [26] Aras S, Semin S, Gunay T, et al. Sexual attitudes and risk-taking behaviors of high school students in Turkey. J Sch Health 2007;77:359–66.
- [27] Manning WD, Giordano PC. Preadolescent parenting strategies and teens' dating and sexual initiation: A longitudinal analysis. J Marriage Fam 2001; 63:322–35.
- [28] Cooksey EC, Mott FL, Nuebauer SA. Friendships and early relationships: Links to sexual initiation among American adolescents born to young mothers, 2002. Perspect Sex Reprod Health 2002;34:118–26.
- [29] Somrongthong R, Panuwatsuk P, Amarathithada D, et al. Sexual behaviors and opinions on sexuality of adolescents in a slum community in Bangkok. Southeast Asian I Trop Med Public Health 2003;34:443—6.
- [30] Sharma V. The reproductive health of adolescents in the Indian subcontinent: The influence of socio-cultural factors. Int J Adolesc Med Health 1998;10:1–22.
- [31] Gammeltoft T. Seeking trust and transcendence: Sexual risk-taking among Vietnamese youth. Soc Sci Med 2002;55:483–96.
- [32] Peterson C. The imaginary audience and age, cognition, and dating. J Genet Psychol 1982;140:317–8.
- [33] Christakis Na, Fowler JH. Estimating peer effects on health in social networks. J Health Econ 2008;27:1386–91.
- [34] Maxwell KA. Friends: The role of peer influence across adolescent risk behaviors. J Youth Adolesc 2002;31:267–77.
- [35] Larson RW, Wilson S, Brown B, et al. Changes in adolescents' interpersonal experiences: Are they being prepared for adult relationships in the twentyfirst century? | Res Adolesc 2002;12:31–68.
- [36] Resnick MD, Bearman PS, Blum RW, et al. Protecting adolescents from harm. JAMA 1997;278:823—32.
- [37] Gubhaju BB. Adolescent reproductive health in Asia. Asia Pac Pop J 2002; 17:97–119.
- [38] McKee MD, Karasz A, Weber CM. Health care seeking among urban minority adolescent girls: The crisis at sexual debut. Ann Fam Med 2004;2: 549–54.
- [39] Bankole A, Biddlecom A, Guiella G, et al. Sexual behavior, knowledge and information sources of very young adolescents in four Sub-Saharan African countries. Afr J Reprod Health 2007;11:28–43.
- [40] Benshoff JM, Alexander SJ. The Family Communication Project: Fostering parent—child communication about sexuality. Elem Sch Guidance Counsel 1993;27:288–300.