Female adolescents' experiences and perceptions regarding sexual health education in Iranian schools: A qualitative content analysis

Mojgan Javadnoori^{1,2}, Robab Latifnejad Roudsari³, Marzieh Hasanpour⁴, Seyyed Mohammad Mehdi Hazavehei⁵, Ali Taghipour⁶

ABSTRACT

Background: Despite so many unmet sexual health education (SHE) needs of adolescents, socio-cultural challenges have caused this issue to be ignored in different scoieties. This study investigated Iranian female adolescents' experiences and perceptions with respect to SHE that they received at schools, and what they really needed, expected, and preferred.

Materials and Methods: In this qualitative study, seven focus group discussions (44 adolescents) and 13 individual in-depth interviews were conducted among female adolescents aged 14-18 in Mashhad and Ahvaz, Iran, to explore adolescents' experiences and perceptions towards SHE in Iranian schools. Data were analyzed using qualitative content analysis.

Results: Analyzing adolescents' perspectives and experiences revealed their great dissatisfaction with SHE in schools. Emerged categories included: lack of obligation and priority for SHE, sexual reticence and evading, making adolescents frightened of sexual issues, inconsistency of SHE with adolescents' needs, unqualified educators, and lack of appropriate educational materials.

Conclusion: This study found some similarities between expectations of Iranian adolescents and those of adolescents from other cultures about an SHE program. Adolescents showed great abilities to appraise health services delivered for them, and so any program for sexual health promotion in adolescents ought to address adolescents' needs, demands, and aspirations. Their contribution can provide insights for tailoring SHE programs for adolescents.

Key words: Adolescents, female, Iran, qualitative research, reproductive health, sexual health education

Introduction

exual health education (SHE) has been recognized by international organizations as a human right, a necessity for development, and a promoter of equity.^[1] Nevertheless, most young people do not receive

¹PhD student in Reproductive Health, Faculty of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, ²Department of Midwifery, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, ³Research Center for Patient Safety and Health Quality, Department of Midwifery, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, ⁴Nursing and Midwifery Care Research Center, Pediatric Nursing Education Department, Faculty of Nursing and Midwifery, Isfahan University of Medical Sciences, ⁵Research Center for Health Sciences, Department of Public Health, Hamadan University of Medical Sciences, Hamadan, ⁶Health Sciences Research Center, Department of Biostatistics and Epidemiology, School of Health, Mashhad University of Medical Sciences, Mashhad, Iran.

Address for correspondence: Dr. Robab Latifnejad Roudsari, Research Center for Patient Safety and Health Quality, Department of Midwifery, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Ebne-Sina Street, Mashhad, Iran. E-mail: LatifnejadR@mums.ac.ir

sufficient education for their sexual lives. Worldwide, earlier sexual maturity and marriage at later ages may cause earlier premarital sex. This exposes adolescents to serious threats including sexual coercion, unwanted pregnancy, unsafe abortion, and sexually transmitted infections (STIs)/HIV. Hence, lack of SHE may be critical.^[2] Many studies have demonstrated that equipping adolescents with appropriate sexual information promotes their sexual health. This is achieved by delaying or abstaining sexual debut as well as establishing safe sex.^[3]

Schools are unique settings which have so many advantages and strengths to provide school-based SHE including having an existing infrastructure, easy access to adolescents and parents, and also opportunities for long-term programs. ^[2] Nonetheless, UNAIDS reported that more than half of the students throughout the world do not receive any school-based education for HIV prevention. ^[4]

There is convincing evidence that adolescents' access to information and services is not always effective in delaying sex, reducing pregnancy, or STIs.^[2,5] It is likely that the health messages are not tailored properly for the target audiences.^[6] A recent review found that effective programs were those which possessed specific characteristics in

developing and implementing curriculum, and identifying curriculum content; in all of these levels, they involved youth themselves.^[7]

Sexual health services and information for adolescents should meet adolescents' needs rather than organizers' preferences. [8] Avusabo et al. entitled adults as "gatekeepers" of sexual education and services for adolescents, because they define the content and design of services. [9] There are some differences between adults' and adolescents' perspectives regarding sex topics that should be taught. Previous research demonstrated deep gaps between students' demands and preferences regarding SHE and what they receive in school. A significant number of students report that their required topics are not covered in school or are not covered in adequate depth. Most adolescents obtain important information through informal channels such as friends, siblings and media, and formal sex education could not meet their needs to this type of information. [10,11] Politicians seem to be out of touch with actual adolescents' needs.[11]

In Iran like in most other Muslim countries, SHE for unmarried people is socially unacceptable because of the religious and cultural prohibitions of extramarital sex, in particular for girls. In these countries, denial of sex before marriage among young people and failure to achieve adolescents' sexual health is a main barrier to combating HIV/AIDS. SHE programs are limited and inadequate, and where it is, teachers skip them over because they are uncomfortable teaching sexual subjects. [12] Recent evidence shows that pattern of HIV transmission in Iran has been changed from injection form in addicts to unprotected sexual contact among young people. [13]

Iran community has significantly experienced modernity and westernization in recent years. Cross-gender romantic friendship and sex outside marriage among young people have been the most obvious changes.^[14] Despite prohibiting sex outside marriage by religion and traditions, evidence shows that it has been growing in Iran. [14,15] Communication technology and global mass media play an important role in these cultural changes. Satellite television is illicit in Iran, nevertheless many people use it illegally.[14] Recent reports from Iran indicated that access to internet and satellite was 43.2% and 60%, respectively.[16] Strong social norms such as condemnation of premarital or extramarital sex, expectation to observance of modesty, and sanctity of the family resulted in controversies about appropriateness and necessity of providing sex education to unmarried people. [17] Schools play minimal role in providing SHE to adolescents in Iran. Two recent studies have demonstrated that sexual related topics are less than 0.0004 of contents of the textbooks in Iranian schools.^[18] Also, sources of sexual knowledge among high school students are friends, books and magazines, and audio-visual materials, and school training is the last resource.^[19]

Regarding authors' experiences with adolescent girls' lack of knowledge, as well as health consequences and stigmatization resulting from premarital sex, this study attempts to explore female adolescents' perspectives to quality of the SHE they have received or prefer to receive in schools. This is one of the first studies in Iran, which addresses this topic using qualitative method. We are hoping that the findings of this study have some implications for legislators, policymakers, and programmers to legislate, design, and implement SHE programs for adolescents.

MATERIALS AND METHODS

Qualitative approach was used for its strengths in reflecting voices of adolescents directly and understanding the context of the study. [20] Study setting was two large province capitals in Iran: Mashhad, the most important religious city in which the holy shrine of the eighth Imam of Shiite Muslims is located, and Ahvaz, the most important industrial city of Iran, in which many residents are immigrants across the country. Focus Group Discussions (FGDs) and individual in-depth interviews were data sources for this study. Purposeful sampling with maximum variation was planned. Eight high schools (two private and six governmental) in the two aforementioned cities were included in the study. To achieve maximum variation, schools were selected from areas with various socioeconomic statuses through getting help from education offices in both research sites. Within schools, we included students from different majors and all grades. So, we could expect within-group homogeneity and between-group heterogeneity in terms of age, grade, major, and socioeconomic status. School assistants and teachers helped authors to find students who were eligible, expressive, and interested in participation. Data collection was carried out until the answers became repetitive and data saturation was achieved.

Participants were selected from girls in their late adolescence period, aged 14-18, because we supposed they have had enough time to experience sexual issues to be able to talk about. Inclusion criteria were having menstrual cycles, living with their family, and being unmarried. Because some adolescents might be unwilling to express their own experiences in group, individual in-depth interviews were planned as well as FGDs. A total of seven FGDs (n = 44) and 13 individual interviews were conducted between January and November 2010. One of the FGDs was held with adolescents who were members of an Adolescent

Friendly Service (AFS). Each group included five to nine adolescents.

Because the study topic was culturally sensitive in Iran, we obtained official permissions after attempting to convince the authorities. All interviews and FGDs were conducted by first author, recorded by two recorders, and then transcribed verbatim. Each individual interview and FGD lasted around 60-90 min.

Semi-structured in-depth interviews were started with a general question (Could you please talk about the current situation of sexual health education for adolescent girls in Iranian schools?). Depending on the participants' responses during the conversation, the interviewer added or removed some questions to guide interview in order to elicit their experiences. FGDs were held in schools in which participants discussed SHE with the assistance of a facilitator.

Data were collected and analyzed concurrently. All FGDs and interviews were considered as unit of analysis. In order to get overall insights and to become immersed in the data, all the transcripts were read several times. Thereafter, interview texts were read word by word and meaning units were identified. Data were coded using MAXqda, a qualitative data analysis software, and then categorized through process of condensation and reduction. [21] To enhance rigor and trustworthiness of the study, these measures were considered: Prolonged engagement with participants in data collection, searching negative cases, member check (confirming samples of coded data by participants), and peer debriefing to enhance the credibility through confirming samples of coded data by experienced qualitative researchers.

"Local Committee of Ethics in Research" at Mashhad University of Medical Sciences approved the study. Informed consent was obtained from all adolescents and their parents. Also, they had right to choose not to continue with the study whenever they decided.

RESULTS

Some of the key experiences and perceptions of adolescents regarding SHE have been selected to be presented. These experiences have been categorized in six main categories described below.

Lack of obligation and priority for SHE

Ignoring health education, in particular SHE, was one of the insufficiencies in Iranian educational systems which some of adolescents referred to. They believed that many of their sexual issues and dilemmas could be sorted out through providing SHE at schools. One of the students commented:

"...Surely all problems would be sorted out by education, many problems can be solved, but unfortunately there is nothing... there is nobody to educate" (Zahra 17 years).

Most students were dissatisfied with including inapplicable subjects in curricula and missing their educational needs about their actual life. They believed that instead of educating theoretical and insensible scientific subjects such as some subjects in physics, it is better to include life skills into their curricula. One student in this relation said:

"...Some topics in physics have no benefit for the students throughout their life. For instance, we had a chapter in physics regarding 'mirrors.' My question is how much it's important to know about the type of pictures in a curved mirror, for instance? I think that these topics can be removed from our textbooks and issues related to the life skills could be included instead, you know" (Mahsa 16 years).

Another critique noted by students was discontinuity and inadequacy of SHE. They believed that all of what they receive as health education at school is limited to few short talks in the entire period of schooling. From students' point of view, holding these classes just once regarding issues like puberty and preventing AIDS does not meet students' needs. One student said:

"...If somebody wants to come and teach us just on one occasion in a year... it doesn't work ... sexual education should be continuous ... I assume that even weekly education is still not enough" (Zahra 17 years).

Nearly all of the participants wanted SHE to be offered formally in their curriculum as a formal module such as other courses.

"...I wish we had a specific book and a specific teacher for such things, separately for girls and boys" (Vida 15 years).

Sexual reticence, evading, and censor

Taboos surrounding sexuality resulted in sexual reticence. Most students pointed out to the teachers' and parents' evading response to their questions about sexual issues and censoring sex topics in their textbooks as great challenges regarding SHE. Adolescents criticized their teachers for their evading response to students' questions about sex topics in this way:

"When they (the teachers) want to talk about sexual issues they rush in discussing the topic, they scare that presumably one of students may ask something in this relation and they cannot explain it openly. So, you know, they just pass quickly from the topic and come to an end" (Fatima 17 years, FG). The manner that teacher responds to sexual questions is an evidence for censoring sex topics at schools:

"The students asked about its meaning and the teacher said that it's not the right time for you to know about that. I stand up and said but I assume it's the right time. We have no understanding about men's sexual issues and in the near future we have to live with a man under the same roof!" (Shiva 16 years).

Another student described censoring sex topics as an important factor in misunderstanding about AIDS and consequently increasing its prevalence in Iran.

"Our Biology teacher just said that you should not have sexual relationship to be safe. That's it! She didn't elaborate why and, didn't explain how it would be spread. Just said no sexual contact" (Maryam 18 years, FG).

Adolescents emphasized that this censor is due to the teachers' fear of principals to reprimand them for their openness.

"The school counselor should talk to us openly. She should not pay attention to the principal's advice regarding not talking about sexual issues explicitly" (Shabnam 16 years, FG).

A further issue was postponing SHE till the time of marriage. According to adolescents' views, SHE would be valuable when it is timely accessible. They expressed their preference to achieve SHE in early ages, before initiating sexual debut. They argued that most adolescent girls, who experience sexual coercion, do not have enough knowledge about their opposite sex, importance of virginity, and consequences of unsafe sex, because of tender age. One adolescent indicated:

"Health educators are not sent to the schools to educate the students about sexual issues until the ninetieth minute; when a boy and girl go for their pre-marriage blood tests, just at that time they receive some sort of sexual counseling and it's too late! the point is that we need to know just now, not at the time of marriage. So, how we should control our sexual desires? When we don't know how should behave in our first sexual relationship and that how we should show our feelings? They just leave it to the ninetieth minute! and it doesn't work! Because perhaps we are 30 or 45 years old at that time and probably have a lot of wrongdoings!" (Neda 18 years, FG).

Adolescents mentioned that the best time for SHE is in the middle school and even in the elementary school about some subjects such as menstruation.

Scaring adolescents about sexual issues

A number of students believed that teachers were concerned about adolescents' tendencies to promiscuity, so they resorted to scaring tactics to frighten adolescents from negative consequences of sexual relationships, whereas they probably did not know that new generations of adolescents are very smart and are able to differentiate between reality and erroneously exaggerated issues. They said that the most important factor to trust adults and accepting their advice regarding sexual values is their honesty. Regarding the adults' efforts to make adolescents frightened of negative consequences of romantic relationships, one of the students said:

"The teachers try to make us cautious in relation to the opposite sex to that extent that we sometimes get panicked when we see a boy or man at the street..." (Fatima 17 years, FG).

One of the students indicated that she knows everything about sexual issues, so would not be convinced by adults' reasons who want just to make her frightened of being involved in sexual topics.

"I've heard that one of the terrible consequences of having sexual relationships is getting pregnancy. It means that pregnancy is inevitable in case of having sexual intercourse, but I know that there are alternatives for not being pregnant and I've seen those cases" (Mina 17 years, FG).

One of the school counselors who had tried to show masturbation as something dreadful indicated that the students were not convinced and said that they have searched books and found no harm following doing masturbation.

Inconsistency of SHE with adolescents' needs

Participants argued that one of the most obvious insufficiencies is inconsistency of SHE with their needs. The majority of participants considered the real needs of adolescents to obtain information about boys, romantic relationship, sexual instinct and the way of controlling it, sexual relationship and related issues, while educators often limit themselves to discuss commonplace, ordinary, and repetitive subjects. One of the students said:

"There are many students in middle school who've got boyfriends and have various risky behaviors... and I'm saying if the school made us alert about sexual issues instead of educating about menstrual periods! (laugh), it was so much better. Many students in the high school do not like to remember their time at middle school at all, because it was so terrible!" (Parisa 15 years, FG).

Adolescents also mentioned that superficiality and inadequate explanation of subjects does not convince them and cannot answer to the several questions of their curious minds. They criticized their teachers for not explaining sex topics in detail and enough depth:

One student referred to not using of logic and rationale to justify the poor consequences of sexual risky behaviors by the teachers in their sexual education. One of the students in this relation indicated:

"Schools just say this is bad, but do not explain why... they don't draw our attention to this point that we might get a serious illness, or get pregnant or may be faced by a physical or psychological problem" (Shadi 15 years, FG).

Another adolescent stressed the effectiveness of logic argumentation on justifying adolescents to accept adults' advice:

"When we were at the middle school, they (principals) reproved us not to wear short and tight uniform. We said we like it! and so did not pay attention to these issues at all. But now we've realized that when boys meet us with such condition, they may be sexually irritated. So now we try to keep our 'Hijab' (Islamic cover), it was better if they gave clear explanations for the issue" (Shiva 16 years).

Unqualified educators and lack of appropriate educational materials

Adolescents emphasized that educators need to be specifically trained for teaching SHE. They reported superficial and inadequate knowledge of health providers that they found the health providers to be unqualified in sexual health, particularly adolescents' SHE.

"I assume that our information is more than the health providers who come to educate us. We know something more. They explain superficially and pointed out to just usual and ordinary stuff" (Parisa 15 years, FG).

Students also expressed their dissatisfaction with judgmental behavior of unskilled teachers and school counselors. They believed that there is no any trustworthy and honest person at schools to help students when they face any sexual problems.

"If one student who's got any problem regarding her sexual relationships wants to get help from one teacher, the teacher's behavior would be changed thereafter due to knowing the matter" (Niki 17 years).

Based on adolescents' opinions, not only their textbooks are insufficient in providing SHE, but also they have no access

to any appropriate book for learning about sexuality. Most books are written in a jargon language or targeted adults so that adolescents are unable to understand them.

"It has been explained in the books, but we cannot understand anything from the book. For instance, regarding fertilization, there is something in our textbook on biology, but we understood nothing from that chapter, as it is so short and ambiguous. It's better to remove that chapter from the book!" (Nazi 16 years).

DISCUSSION

Adolescents presented a sort of unhappiness and dissatisfaction with SHE they received because of inadequacy, discontinuity, lack of educational materials, emphasizing on negative aspects of sexuality, superficiality, and not having enough depth. They perceived the lack of sexual health-related knowledge and skills of their teachers, school counselors, and health care providers to address their SHE needs, particularly in relation to psychological aspects of sexual health. Most of these critiques have been also reported (more or less) by adolescents in the other studies across the world. [8,10,22,23]

One of the most important reasons for the silence about sexuality is the concerns of adults that SHE can encourage adolescents to be sexually active. But Bourton's study showed that adolescents themselves do not think so. They believe that having early and accurate sexual information does not increase the likelihood of wanting to experience sex, whereas having limited knowledge increases students' curiosity and likelihood of desire to have sex. [22] Giving no priority to SHE by authorities and schools in Iran similar to some other regions [24] causes providing SHE more difficult.

Adolescents criticized adults' negative attitude to sexuality and trying to use scaring tactics to make adolescents frightened from health consequences subject to sexual contacts. As Islam recognizes human sexuality as an endowment and emphasizes on parents' role in sexuality education to their children, it should encourage parents to discuss sexual health topics to children and avoid employing scaring tactics. [25] According to Islamic thought, achieving the human transcendence and maturation depends on concordant development of all dimensions of him/her including sexual dimension; hence, sex education is a necessity for his/her life. Indeed, main rationale for sexuality education is not just preventing from sexually transmitted diseases such as AIDS and hepatitis; rather, sexuality is a part of individual and social human identity, which can be influenced by the sexual education. [26] Previous studies have also reported adolescents' dissatisfaction with focusing SHE on negative consequences of unhealthy sexual decisions. They emphasized that sex educators should possess positive attitudes to sexuality. Shoveller *et al.* reported that adolescents criticized SHE which is directed toward protecting against pregnancy and STIs. They described this as "pathologizing sex." In other words, sex has been seen as a reason for diseases and issues related to emotional aspects of sexual relationship have been overlooked. [27]

Views of adolescents about appropriate time of education in our study were consistent with the results of previous studies.^[8,22,28] Adolescents' urgent need to SHE at middle schools was found in this study; even some students believed that beginning of SHE in some topics such as menstruation at last years of primary schools would be more useful. They mentioned that postponing SHE to the time of marriage for marrying candidates - as it is currently implemented in Iran – is too late and pointless. Research in Iran, however, has shown varied results. Some studies have shown that Iranian parents agree with SHE for adolescents, [29] but other research has found that Iranian parents and teachers believe that the appropriate time for educating most sexual health topics is the marriage time. [30] This incompatibility between adults' and adolescents' views indicates decreased age of sexual orientation in the new generation that is unacceptable for adults yet. There are common concerns that exposing adolescents to sex education results in starting sexual activity earlier. Many studies around the world reported this adults' fear. [2] There are evidences showing relationship between SHE and early onset of sex.[31,32] In fact, such evidences suggest this opinion that a kind of SHE is avoiding to talk about it.[33] Thus, controversy among adults about appropriateness of SHE for adolescents is unanswered yet, but adolescents themselves were ever complaining about evading and reticence in their parents and teachers.[10,34] It seems that not educating sexual health issues to the adolescents does not warrant that they will not be exposed to such information. In most studies, adolescents have reported that they receive important information about sex topics from their friends, siblings, and media, which has never been provided formally at schools.^[10] So, delivering information through official channels will be more acceptable. Bleakly et al. demonstrated that learning about sex from peers and media is related to the increased likelihood of having sex, whereas learning from adults (parents and religious leaders) is associated with delaying sex.[35]

In this study, adolescents considered their teachers to be unqualified to educate sex topics. In communities such as Iran in which sexuality education has not been adequately provided both in students' curricula and training programs for teachers, inadequate knowledge and skills of teachers to teach sex topics seems normal. But it is notable that adolescents' distrusting to their teachers and their

dissatisfaction with teachers' judgmental reactions has been also reported in research studies which have been conducted in the settings in which sexuality education has been formally included in the school curricula. They have recognized their teachers neither as the best educators for teaching SHE nor as possessing qualifications.[8,10,23] On the other hand, most teachers prefer not to deal with sensitive subjects because they fear that society may reproach them.^[23] In addition, teachers need some skills to be able to teach sex topics successfully. [36] UNESCO emphasized the key role of well-trained and motivated teachers in the provision of effective SHE. Supporting teachers in this regard by establishing supportive rules helps them to deliver qualified SHE.[2] This matter indicates that any sex education program should consider trained and skilled educators as an important part of program; otherwise, the program will not be effective and successful.

Adolescents overwhelmingly revealed their urgent need to information about virginity, romantic relationships, knowing opposite sex, and handling sexual desire. Asian cultures share stigmatization of sexuality and condemnation of pre- and extramarital sex, especially for daughters whose family's honor depends on their chastity, [37,38] and Muslims particularly have more fanatical beliefs to virginity standard. [39] Critical importance of virginity makes adolescents to rate this topic as the most important subject to include in SHE content.

The main strength of this study was adopting a qualitative approach in order to attaining first-hand experiences of adolescents and hearing their voices directly. Furthermore, conducting the study in two cities that seem to be different in terms of socio-cultural context (religious vs. industrial) enabled us to compare findings from these two different contexts. Contrary to our expectation, findings were similar in the two cities. These findings confirm emerging of a global youth culture as United Nations Population Fund introduces. It means that youth are under the influence of a global culture among them, as they share values and ideas through mass media and communication technology rather than being limited to their socio-cultural context.[40] Another importance of this study was that only a few studies have addressed adolescents' perspectives on their sexual information needs in Iran. This study, however, has some limitations. We included only female adolescents at high school level. Another limitation was that because study settings were restricted to two provinces of Iran, generalization of findings to Iran is not necessarily correct. Conducting another study that includes both male and female adolescents will be more comprehensive and presents interesting comparison between boys' and girls' perspectives toward SHE.

CONCLUSION

Adolescents showed dissatisfaction with SHE they received in schools and evaluated it insufficient. Their views and suggestions provide insights for developing and tailoring SHE for adolescents, therefore any program for sexual health promotion in adolescents ought to address adolescents' needs, demands, and aspirations. We found some similarities between expectations of Iranian adolescents and those of adolescents from other cultures about an SHE program.

ACKNOWLEDGMENTS

This study as part of a PhD thesis was approved and funded by Research Vice Chancellors, Mashhad University of Medical Sciences (with code of 89106), and Isfahan University of Medical Sciences (with code of 391215), Iran. We sincerely acknowledge both aforementioned universities assistance to support this study. Authors would also like to thank the authorities of education offices and principals of schools in Mashhad and Ahvaz for their kind cooperation. We also offer our special thanks to students and adults who participated in this study.

REFERENCES

- UNFPA. Comprehensive sexuality education: Advancing human rights, gender equality and improved sexual and reproductive health. [online] 2010; Available from: http://www.unfpa.org/ webdav/site/global/groups/youth/public/Comprehensive%20 Sexuality%20Education%20Advancing%20Human%20Rights%20 Gender%20Equality%20and%20Improved%20SRH-1.pdf [last accessed on 2011 Apr 12].
- 2. UNFPA. Comprehensive sexuality education, Giving young people the information, skills and knowledge they need. [online] Available from: http://www.unfpa.org/public/home/adolescents/pid/6483 [last accessed 2011 Aug 29].
- UNESCO. International technical guidance on sexuality education, an evidence-informed approach for schools, teachers and health educators. Volume 1, The rationale for sexuality education. UNESCO; 2009.
- UNAIDS and WHO. 2007 AIDS epidemic updates. 2007, Geneva: UNAIDS. 2007.
- DiCenso A, Guyatt G, Willan A, Griffith L. Interventions to reduce unintended pregnancies among adolescents: Systematic review of randomized controlled trials. BMJ 2002;324:1426-34.
- Irala JD, Gómara Urdiain I, López del Borgo C. Analysis of content about sexuality and human reproduction in school textbooks in Spain. Public Health 2008;122:1093-103.
- 7. Kirby DB, Laris BA, Rolleri LA. Sex and HIV education programs: Their impact on sexual behaviors of young people throughout the world. J Adolesc Health 2007;40:206-17.
- Reeves C, Whitaker R, Parsonage RK, Robinson CA, Swale K, Bayley L. Sexual health services and education: Young people's experiences and preferences. HEJ 2006;65:368-79.
- Avusabo–Asare k, Bankole A, Kumi-kyereme A. Views of adults on adolescent sexual and reproductive health: Qualitative evidence from Ghana. Occasional report. Vol. 34. New York:

- Guttmacher Institute; 2008. p. 9.
- 10. DiCenso A, Borthwick VW, Busca CA, Creatura C, Holmes JA, Kalagian WF, *et al.* Completing the picture: Adolescents talk about what's missing in sexual health services. Can J Public Health 2001;92:35-8.
- 11. Dailard C. Sex education: Politicians, parents, teachers and teens, special analysis. Guttmacher Rep Public Policy 2001;4:9-12.
- 12. DeJong J, Jawad R, Mortagy I, Shepard B. The sexual and reproductive health of young people in the arab countries and Iran. Reprod Health Matters 2005;13:49-59.
- 13. Iranian Students' News Agency. Alarm for third wave of AIDS in Iran. [online] 2011; Available from: http://www.isna.ir/ISNA/NewsView.aspx?ID=News-1808891 [Last accessed on 2011 Sep 04].
- 14. Khalajabadi Farahani F, Cleland J, Mehryar AH. Associations between family factors and premarital heterosexual relationships among female college students in Tehran. Int Perspect Sex Reprod Health 2011;37:30-9.
- 15. Mohammadi MR, Mohammad K, KA Farahani F, 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.
- 16. Khabaronline. 60% of people use satellite. 2011 [Online] Available from: http://www.khabaronline.ir/news-146732. aspx, [Last accessed on 2011 April 26].
- 17. Refaei Shirpak K, Eftekhar Ardebili H, Mohammad K, Maticka-Tyndale E, Chinichian M, Ramezankhani A, *et al.* Developing and testing a sex education program for the female clients of health centers in Iran. Sex Educ 2007;7:333-49.
- 18. Mahram B, Nabizadeh Shahri B. The study of sexual education in Iranian secondary and high school textbooks, paper presented at the 3rd Congress on Family and Sexual Health. Tehran, Iran: Shahed University; 2007 Nov 27-29.
- 19. Malek A, Abbasi Shokoohi H, Faghihi A, Bina M, Shafiee-Kandjani A. A Study on the Sources of Sexual Knowledge Acquisition among High School Students in Northwest Iran. Arch Iran Med 2010;13:537-42.
- Creswell JW, Plano Clark VL. Designing and conducting mixed methods research. California: Sage Publication, Inc; 2007.
- 21. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today 2004;24:105-12.
- 22. Bourton V. Sex education in school: Young people's views. Nursing Children and Young People 2006;18:20-2.
- Pokharel SH, Kulczycki A, Shakya S. School-based sex education in western Nepal: Uncomfortable for both teachers and student. Reprod Health Matters 2006;14:156-61.
- 24. Baraitser P, Wood A. Precarious partnerships: Barriers to multidisciplinary sex education in schools-A short communication. Health Educ J 2001;60:127-31.
- 25. Orgocka A. Perceptions of communication and education about sexuality among Muslim immigrant girls in the US. Sex Educ 2004;4:255-71.
- 26. Unknown author. About sex education for adolescents and youth. Howra 2005;17:4-7. Available from: http://www.womenrc.ir/index.php?lang=fa and action=article and cat=37 and id=604 and artlang=fa [Last accessed on 2012 Jan 19].
- 27. Shoveller JA, Johnson JL, Langille DB, Mitchell T. Socio-cultural influences on young people's sexual development. Soc Sci Med 2004;59:473-87.
- 28. Byers ES, Sears HA, Weaver AD, Cohen JN, Voyer SD, Thurlow JL, et al. An adolescent perspective on sexual health education at

- school and at home: I. high school students:[1]. Can J Hum Sex 2003;12:1-17.
- 29. Statistical centre of Iran. Results of basic information census in reproductive health in selected cities of Tehran province, 2006. Available from: http://amar.sci.org.ir/SeqSetView.aspx?P=PL and SI=148/2/1/1/0/0/0/0/0 [Last accessed on 2011 July].
- 30. Jalali Aria K, Nahidi F, Amir Ali Akbari S, Alavi Majd H. Parents and teachers' view on appropriate time and method for female reproductive health education (full text in Persian). J Gorgan Univ Med Sci 2010:12:84-90.
- 31. Dilorio C, Resnicow K, Thomas S, Wang DT, Dudley WN, Van Marter DF, *et al.* Keepin' it R.E.A.L.!: Program description and results of baseline assessment. Health Educ Behav 2002;29:104-23.
- 32. Fingerson L. Doz mothers' opinions matter in teens' sexual activity? J Fam Issues 2005;26:947-74.
- 33. McDonald DP. Toward an authentic sexuality education curriculum-development paradigm, Master of Arts Dissertation. Canada: The University of Western Ontario; 1995.
- 34. Vuttanont U, Greenhalgh T, Griffin M, Boynton P. "Smart boys" and "sweet girls"-sex education needs in Thai teenagers: A mixed-method study. Lancet 2006;368:2068-80.
- 35. Bleakley A, Hennessy M, Fishbein M, Coles HC, Jordan A. How sources of sexual information relate to adolescents' beliefs about sex. Am J Health Behav 2009;33:37-48.

- 36. Helleve A, Flisher AJ, Onya H, Koma W, Klepp K. Can any teacher teach sexuality and HIV/AIDS? Perspectives of South African Life Orientation teachers, Sex Educ 2011;11:13-26.
- 37. Kim JL, Ward M. Silence speaks volumes: Parental sexual communication among asian American Emerging adults. J Adolesc Res 2007;22:3-31.
- 38. Okazaki S. Influences of culture on Asian Americans' sexuality. J Sex Res 2002;39:34-41.
- 39. Smerecnik C, Schaalma H, Gerjo K, Meijer S, Poelman J. An exploratory study of Muslim adolescents'views on sexuality: Implications for sex education and prevention. BMC Public Health 2010;10:533.
- 40. UNFPA. Supporting Young People at a Pivotal Period in Their Lives. [online] Available from: http://www.web.unfpa.org/adolescents/overview.htm [Last accessed on 2011 Aug 29].

How to cite this article: Javadnoori M, Roudsari RL, Hasanpour M, Hazavehei SMM, Taghipour A. Female adolescents' experiences and perceptions regarding sexual health education in Iranian schools: A qualitative content analysis. Iranian J Nursing Midwifery Res 2012;17:539-46.

Source of Support: This study as part of a PhD thesis was funded by Research Vice Chancellors, Mashhad University of Medical Sciences and Isfahan University of Medical Sciences, **Conflict of Interest:** None.