Evaluation of Sexual Health Needs of Iranian Adolescents

Fatemeh Daneshfar,
Ph.DStudent of Sexual and Reproductive Health, Student Research Committee, School of Nursing and Midwifery, ShahroudUniversity of Medical Sciences, Shahroud, Iran.E-mail: Daneshfar1987@yahoo.com, ORCID: 0000-0002-6556-9228
Masood Yunesian,
Professor of Epidemiology, Department of Environmental Health Engineering, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.E-mail: yunesian@tums.ac.ir, ORCID: 0000-0002-2870-7433
Zahra Motaghi*,
Associate Professor of Reproductive Health, Department of Reproductive Health, School of Nursing and Midwifery, Shahroud University of Medical Sciences, Shahroud, Iran.E-mail: zhrmotaghi@yahoo.com, ORCID: 0000-0002-7345-0104

Abstract--- Introduction: Sexual health is a very important aspect of health during adolescent life. It is necessary to address the issue related to adolescents' healthcare needs including their sexual health to improve the health of the family, society, and future generations. Due to the importance of health and sexual health in adolescents, a systematic review was conducted to evaluate the sexual needs of Iranian adolescents according to research articles.
Materials and Methods: Studies published in Scopus, EMBASE, CINAHL, POPLINE, PsycINFO, Web of Science Core, PubMed, DoPHER, and International Bibliography of Social Science in English between January 2000 and August 2021 were used. Other sources were identified through the snowball method of scanning references in the selected sources. The search keywords for screening articles included "adolescent", "adolescence", "teenagers", "youth", "teen", "young", "health services", "health center", "sexual health", "anal sex", "behavior", "sexual activities", "sexuality", and "Iran". An initial search yielded 3566 records, of which 3331 were excluded due to duplication or not meeting the primary criteria, and 234 publications were retrieved for full-text evaluation. Finally, 15 studies that met the inclusion criteria were selected for analysis.
Results: Fifteen studies met the inclusion criteria. Their results were grouped into three main categories, including need for education and counselling, need for planning, and need for parent-adolescent interaction. According to the results, the challenges regarding the adolescents' sexual needs included sexual reticence, censorship and cultural and social taboo and prohibitions; lack of adequate training and access to improper information sources, andunqualified educators;need for improved sexual health education services and the related barriers; concerns about sexually transmitted diseases and pregnancy; and need for reinforcing the adolescents' interactions with parents and teachers.
Conclusion: According to the results of the present study, need for education and counselling, need for planning, and need for parent-adolescentinteraction are the most important issues related to adolescent sexual health education. One of the shortcomings of the Iranian education system is that it ignores health education, especially sexual health. On the other hand, a desirable family-adolescent relationshipis very effective especially regarding decision-making about self-care while interacting with the opposite sex.Adolescents'discussions with their parents about different issues, like menstruation, puberty, and relationship with the opposite sexplay a significant role in their preparedness for self-care.

Keywords: Systematic, Desirable Family-adolescent Interaction, Need, Iran, Adolescent, Sexual Health Education.

I. Introduction

Adolescence is an important period of life characterized by the initiation of puberty. It is a stage of transition from childhood to adulthood (1). Adolescents comprise a significant proportion of the population in developing and developed countries (2). Adolescence is associated with a profound physical and psychosocial growth, including physical maturation, formation of romantic relationships, and attainment of sexual milestones (3). Adolescents are more vulnerable to sexual and reproductive problems like pregnancy, abortion, sexually transmitted diseases (STIs), HIV/AID, and other fertility-threatening conditions (4). For this reason, they are usually considered as target populations for applying different sexual education strategies aiming at mitigating the risk of unintended pregnancies and STIs using contraceptive methods (5,6). Health in adolescence depends on the quality of life of adolescents in this period because physical, psychological, and social issues like unsuccessful marriage, high-risk pregnancy, morbidity, and unhealthy habits originate from this period (2). Sexual health is a vital and inseparable

part of health during life (7). On the other hand, the sexual health of adolescents is a major global public health issue. About 60% of new HIV infections occur in 15-24 year-olds. In industrialized countries, the incidence of STIs is increasing among the youth, and adolescent pregnancy is associated with poor social outcomes. These and other statistics have garnered attention to adolescents as a group with distinct issues (8).In Iran, like many other Muslim countries, sexual health education is socially unacceptable forunmarriedpeople due to religious and cultural prohibitions of extramarital sexual relationship. In these countries, denial of prenuptial sexual relationship among young people and failure to attain youth health are the main barriers to combatting HIV/AIDS (9). Therefore, adolescent health and addressing their healthcare issues are necessary for improving the health of the family, society, and future generations (2). During the past years, several studies were conducted to develop, implement, and assess adolescent healthcare services to improve sexual and reproductive health services. Adolescents compared to any other age group, are more at risk of STIs and HIV. On the other hand, adolescents face major barriers to access to HIV tests and treatment. Even when they can access these services, they may feel embarrassed or have concerns about others' judgement (10). Due to the importance of adolescent sexual health, a systematic review was conducted to assess the sexual health needs of Iranian adolescents according to research studies.

II. Materials and Methods

Search Strategy

Research articles published in Scopus, EMBASE, CINAHL, POPLINE, PsycINFO, Web of Science Core, PubMed, DoPHER, and International Bibliography of Social Science in English between January 2000 and August 2021 using terms related to adolescent sexual health were used.Other sources were identified through the snowball method of scanning references in the selected sources. First, one of the members of the research team produced the terms needed for the search, which were then reviewed by all authors. The search keywords for screening articles included "adolescent" or "adolescence" or "female adolescents" or "male adolescents" or "male teenagers" or "female teenager" or"teenager" or "youth" or "teen" or "young" or "health services" or "health center" or "sexual health" or "sexual behavior" or "anal sex" or "premarital sex" or "behavior" or "sexual activities" or "sexuality" or "sex education" and "Iran".

Inclusion and Exclusion Criteria

The inclusion criteria were all types of qualitative and quantitative studies (except for review and non-original studies) that evaluated subjects aged 10-19 years, studies conducted in adolescents as target populations, and articles providing adequate proper information about sexual health needs of Iranian adolescents. Studies that were not written in English, studies with unavailable full-texts, studies that were not conducted on adolescents as the study population, and studies that evaluated healthcare services like mental health were excluded from the study.

Screening and Data Extraction

Two expert researchers from the research team applied the search strategies. Then, they independently screened the titles and abstracts of the articles and selected the relevant studies according to their relationship with the objectives of the review study as well as the inclusion and exclusion criteria and their quality. The abstracts of all of the extracted studies were reviewed. If it was not possible to exclude an article based its title or abstract, its full-text was retrieved and assessed. In one of the researchers was doubtful or uncertain about a study, both researchers evaluated the article comprehensively and reached a consensus and proposed reasons for inclusion or exclusion of the article. If the two researchers did not reach a consensus, a third author made the final decision.

Qualitative Assessment

The quality of the final studies was evaluated by three experienced evaluators in the field of systematic review and meta-analysis studies independently. Then, the results were presented and discussed in a joint meeting. In case of any disagreement, discussions continued until a consensus was achieved between the three evaluators. The Cochrane risk of bias was used to examine the quality of the studies. According to this protocol, the studies are categorized to low, high, and unclear in terms of risk of bias (23). The articles were evaluated from different methodological aspects, including sampling method, reliability of the tool, and objectives. Finally, the articles that were appropriate in terms of topic coverage and content structure were used in this study. An initial search yielded 3566 records, of which 1482 were excluded due to duplication, not meeting the age criterion,having an indirect relationship with the subject, or lacking a suitable methodological quality (1849 records). In the next step, 235 articles were selected for full-text evaluation, of which 15 articles that met all of the inclusion criteria were used in the study. Reporting of the data, including analysis and interpretation, determining the study objectives, and data collection, was according to PRISMA (Preferred Reporting Items for Systematic Reviews) (Figure 1).

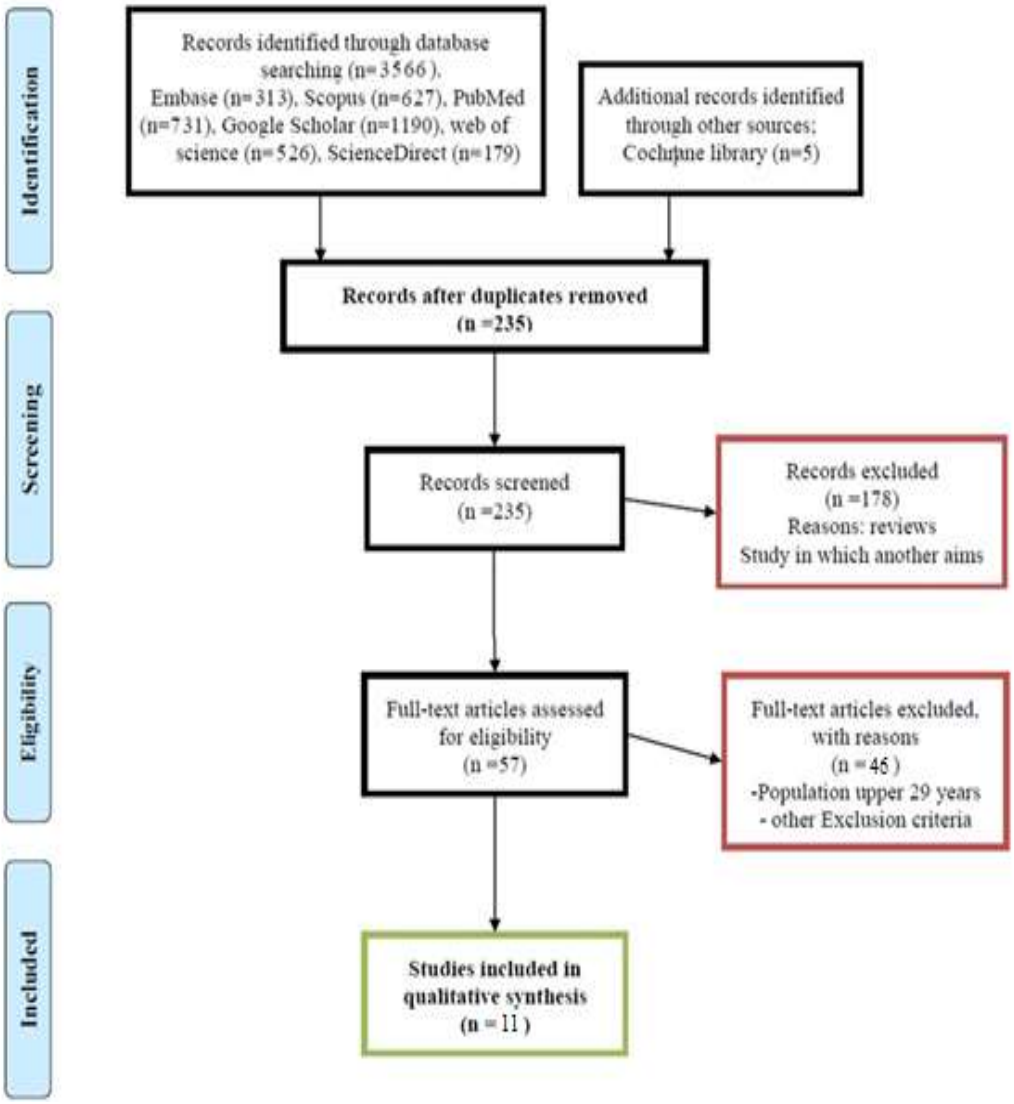

Figure 1: Diagram of Articles Selection Process

III. Results

The titles, abstracts, and full-texts of the retrieved articles were evaluated by two researchers independently. According to the inclusion criteria, 11 articles, including 5 qualitative studies, 2 cross-sectional studies, 1 pilot study, 1 quantitative cross-sectional study, 1 randomized controlled trial, and 1 sequential explanatory mixed methods study, were assessed more carefully. The results are presented in Table 1. The data collection methods included questionnaires, individual in-depth interviews, semistructured interviews, focus groups and multistage cluster sampling.

Table 1: Summary of Evaluated Studies

Authors' names and country	Type of study and objective	Participants	Data collection and sampling method	Results
Javadnoori et al, 2012 Iran (9)	Qualitative study; To examine Iranian female adolescents' experiences and perceptions with respect to SHE	44 female adolescents aged 14-18 years studying in Mashhad and Ahvaz schools	Individual in-depth interviews Purposeful sampling with maximum variation	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

	that they received at schools			materials
LatifnejadRoudsari et al, 2013 Iran (11)	Qualitative study; To evaluate socio-cultural challenges of sexual health education for female adolescents in Iran	Female adolescents aged 14-18 years from high schools of Mashhad and Ahvaz Sample size not mentioned	Individual in-depth interviews Purposeful sampling with maximum variation	Challenges are manageable despite existence of salient socio-cultural doubtful issues about sexual health education for adolescents
Baheiraei et al, 2014 Iran (12)	Pilot study; To examine primary and preferred sources of adolescents' health information queries	15 male and female adolescents aged 14–18 yearsfrom Tehran high schools	Questionnaire Samples were selected using stratified cluster random sampling method	Integration of sources like mothers (effect size: 51.11%), same-sex friends (effect size: 40.11%) and media (books: 39.6%) and the Internet: 37.9%) to deliver health information.
Mosavi et al, 2014 Iran (13)	Qualitative study; To explore the views and experiences of adolescent girls regarding the necessity of providing sexual and reproductive health (SRH) information and services	247 adolescent girls with a mean age of 16.11 from Tehran, Mashhad, Shahroud, and Qom	In-depth, semi-structured, individual interview Samples were selected using multi-stage cluster sampling method	The results confirmed the necessity of providing SRH services for adolescent girls. Policy makers should plan and provide SRH services
Shahhosseini and Hamzehgardeshi, 2015 Iran (14)	Sequential explanatory mixed methods study using follow-up variants; To explore Iranian adolescents' understanding of their reproductive health needs	1247 female adolescents aged 15-18 years from urban and rural areas of Sari	Questionnaire Samples were selected using multi-stage random sampling method	Rural adolescents were nearly 1.5-2 times more in favor of a same sex counselor, reproductive health group education, and the need for sexual health education than city adolescents. 94.3% of city girls and 94.4% of village girls agreed with confidential training, and 70.6% of city girls and 81.2% of village girls agreed with same-sex educator
Shahhosseini and Abedian, 2015 Iran (15)	Quantitative cross-sectional Study; To compare the attitudes of Iranian health care providers and adolescents towards health education needs	402 female students aged 15-18 years from 14 high schools in northern Iran	Questionnaire Samples were selected using single-stage cluster sampling method	Health care providers and adolescents both emphasized on the mothers' role as the most reliable source of adolescents' education The highest mean score was assigned to "Education about prevention of sexual high risk behavior" (According to health

				care providers' views which was significantly different from adolescents' perspective (t=8.42, p0.05)). Provision of health education programs for adolescents were essential in meeting adolescents' educational health needs
Khajouei and Salehi, 2017 Iran (16)	Descriptive cross-sectional study; To examine the health literacy status of high school students in Kerman, Iran	312 students aged 15-18 years (50% were female students) from Kerman high schools	Questionnaire; Samples were selected using multi-stage cluster sampling method	Lack of health literacy requiring serious interventions by authorities and policymakers; incorporating subjects such as mental health, prevention of addiction, and puberty and sexual health into educational curricula; health knowledge was inadequate in 86% and adequate in 14%; health skills were inadequate in 88% and adequate in 12%; Health behaviors were inadequate in 69% and adequate in 31%
Alimoradi et al, 2017 Iran (17)	Qualitative study; To increase and deepen the understanding and knowledge of the factors affecting Iranian adolescent girls' readiness to take care of their sexual and reproductive health	18 adolescents aged 13-19 years old from high schools, art schools, and universities of Karaj	In-depth and unstructured interviews Samples were selected using purposive sampling method	Factors affecting adolescents' behavior regarding proper reproductive and sexual health were: desirable interaction between families and adolescents, readiness for puberty and menstruation, life skills, and spiritual self-monitoring
Darabi et al, 2017 Iran (18)	Randomized controlled trial; To assess the effect of a theory of planned behavior (TPB) - based educational intervention on attitude, norms, parental control, and behavioral control in high school girls in Tehran, Iran	578 high school girls aged 12-16 years from Tehran	Questionnaire; The subjects were randomly assigned to the experimental (n=289) and control (n=289) groups using multistage random cluster sampling	Health and education policy-makers need to design and implement new education programs; Significant improvement in attitude (95%), subjective norms (95%), perceived behavioral control (95%), perceived parental control (95%) was observed in experimental group compared to control group
Mosavi et al, 2020 Iran (19)	Qualitative study; To explore the views and experiences of adolescent girls to	247 adolescent girls aged 14-19 years from Tehran, Mashhad,	focus groups and semi-structured interviews; Sampling method not mention	Governments' acceptance of sexual health education shortcomings, increasing public participation and intersectional collaboration,

	identify the facilitators of access to sexual and reproductive health services	Shahroud, and Qom		and creating a supportive environment in the community are important steps in improving sexual health education
Torki et al, 2021 Iran (20)	Cross-sectional study; To investigate the factors associated with mother-adolescent daughter dialog on sexual health matters in Iran	363 female adolescents aged 14-18 years from Ahvaz schools	Multi-stage cluster sampling; Data collection was conducted utilizing multi-stage cluster sampling in high schools using the Parent-adolescent sexual dialog questionnaire and the parent-adolescent general dialogue questionnaire	Effect of some demographic characteristics of parents and adolescents, and the parent-adolescent emotional relationship on communication between them about sexual issues; Mean score of mother-daughter sexual dialog had a significant relationship with mother's education (4.03), adolescent's major (4.48), mother-daughter general communication and emotional relationship with parents (6.47)

The Cochrane Risk of Bias Tool was used to assess the quality of the studies and the results are presented in Table 2.One study had risk of bias in three domains and five studies had risk of bias in two domains. The risk of bias in selection, performance, reporting, and other domains was unclear in the rest of the studies.

Table 2: Risk of Bias Assessment of Included Studies

Scales in five domains	**Cochrane Risk of Bias Tool (types of bias)**						
	Performance Bias		**Selection Bias**		**Reporting bias**	**Attrition bias**	**Other**
	Random sequence generation	**Allocation concealment**	**Blinding of Participants and Personnel**	**Blinding of Outcome Assessment**			
Javadnoori et al, 2012	Low	Low	Unclear	Unclear	Unclear	Unclear	Low
LatifnejadRoudsari et al, 2013	Low	Low	Low	Low	Unclear	Low	Unclear
Baheiraei et al, 2014	Unclear	Unclear	Unclear	Unclear	Unclear	Unclear	Unclear
Mosavi et al, 2014	Low	Low	Unclear	Unclear	Unclear	Low	Unclear
Shahhosseini and Hamzehgardeshi, 2015	Unclear	Unclear	Unclear	Unclear	Unclear	Low	Unclear
Shahhosseini and Abedian, 2015	Low	Unclear	Low	Unclear	Unclear	Low	Unclear
Khajouei and Salehi, 2017	Low	Low	Unclear	Unclear	Unclear	Low	Unclear
Alimoradi et al, 2017	Low	Unclear	Unclear	Unclear	Unclear	Low	Unclear
Darabi et al, 2017	Unclear	Unclear	Unclear	Unclear	Unclear	Low	Unclear
Mosavi et al, 2020	Low	Low	Low	Unclear	Unclear	Low	Unclear

Torki et al, 2021	Low	Low	Unclear	Unclear	Unclear	Low	Unclear

IV. Discussion

A systematic review of research studies was conducted to evaluate the sexual health needs of Iranian adolescents. The results can be grouped into three broad categories, including need for education and counselling, need for planning, and need for parent-adolescent interaction. Education and counselling are among the most important sexual health needs of adolescents. According to adolescents, ignoring health education, especially sexual health, is a shortcoming of the Iranian education system (9). Some of the adolescents believe that their sexual problems and issues can be sorted out through providing sexual health education at schools (9). This is while according to a study by Sheikhansari et al., the participants were dissatisfied with the system of SHE provision. According to the results of this study, the barriers to acquiring sexual information and seeking counselling and healthcare were a lack of reliable resources, taboo and cultural barriers, lack of trust and confidentiality (21).

LatifnejadRoudsariet al found that the main sociocultural challenges to provide SHE for adolescents were affected by sexual taboos, resulting in many challenges in the areas of policymaking, program designing and implementation, and sexual education in the families. These challenges included denial of prenuptial sexual relationship in adolescents, stigma and embarrassment attached to sexual issues, reluctance to discuss sexual issues in the public, sexual discussion as a socio-cultural taboo, lack of legal support, intergeneration gap, imitating non-Islamic models of education, and religious uncertainties (11). According to Mousavi et al., there are six main reasons for the need to provide SHE for adolescents includelack of adequate knowledge about SRH, easy access to inaccurate information sources, cultural and social changes, increased risky sexual behaviors among adolescents, religion's emphasis on sex training of children and adolescents, and presence of cultural taboos (13). In one study, most of the students mentioned teachers and parents' evasion of responding to their questions about sexual issues and censoring sex topics in their textbooks as great SHE challenges. They believed that instead of receiving education on theoretical and intangible scientific subjects like some physics subjects, it is better to integrate life skills into their curricula. In their opinion, all the education they receive as health education at school is limited to few short talks during schooling (9).

Studies have shown that many adolescents consider SHE a necessity. In this regard, Shahhosseini and Hamzehgardeshi reported that the majority of the participants in the city and some villages emphasized SHE for themselves (14).Darabi et al conducted a study to evaluate the effect of a theory of planned behavior-based educational intervention on the attitude, norms, parental control, and behavioral control of high school girls in Tehran, Iran. The results showed a marked improvement in the attitude, perceived behavioral control, perceived parental control, and subjective norms in the experimental group versus the control group six months after the educational intervention (18). On the other hand, participation of adolescents in SHE can facilitate these services.

Abedian and Shahhosseini found that participation of adolescents in providing sexual and reproductive health services and selecting instructors according to adolescents' preferencesplayed a role in facilitating SHE provision in personal, interpersonal, and structural aspects (15).

Short-term SHE programs for adolescents should focus more on reproductive health outcomes (pregnancy prevention, knowledge and awareness about AIDS and other STDs, promoting self-control, use of contraceptive methods and condom use). Factors like desirable interaction between families and adolescents, readiness for puberty and menstruation, life skills, and spiritual self-monitoring can help adolescents to take care of their sexual and reproductive health (17).Mosavi et al categorized the main facilitators of Iranian female adolescents' access to sexual and reproductive health services into five categories, including factors associated with policymaking like government support, benefiting from religion's potentials, social and cultural factors like creating a supportive environment in the community, public participation, and factors associated with methods of service delivery (19). A desirable adolescent-family relationship is very effective, especially regarding decision-making about self-care while interacting with the opposite sex. It is very important that adolescents talk with their parents about different issues like daily matters, issues related to menstruation and puberty, and issues related to the opposite sex, which improves their preparedness for self-care. Revealing different aspects of the issue to adolescents, encouraging them to choose role models, maintaining their autonomy in decision-making, and observing the views of parents by adolescents help them make independent sound decisions that protect their health (17). The results of a study by Torki et al showed that the mother-daughter interaction had a significant correlation with the mother' education level, mother-daughter general communication and emotional relationship with parents (21). Al-Ani et al conducted a study to explore sexual and reproductive health aspects among secondary schools male students in Babel Governorate, Iraq. The results showed that family had an important role in education of children while the schools remained the cornerstone in health education. The authors also discussed the effect of peers in this regard, too (22). The family is one of the main sources for provision of health needs. This role is sometimes played in the form of providing facilities and sometimes through acting as a guardian, counsellor, or companion. Therefore, family plays

an important role in maintaining and promoting different aspects of adolescent health, including sexual and reproductive health, which may be considered the most aspect of life during adolescence.

Categories and Challenges of Adolescent Sexual Health

According to the results of Table 3, the categories and challenges of adolescent sexual health were as follows:

1. Sexual Reticence, Censorship and Cultural and Social Taboo and Prohibitions

Taboos surrounding sexuality and sexual issues cause sexual hindrance. Most of the students mentioned teachers and parents' evasion of responding to their questions about sexual issues and censoring sex topics in their textbooks as great SHE challenges (9). The current rules support socio-cultural norms that consider sex as embarrassing or unacceptable for unmarried people and sanctify virginity in women (21). This is while some adults prefer to consider sexual issues as private or personal matters due to taboos attached to these matters. They believe that public presentation of sex education can interfere with the chastity of the society (11). On the other hand, in a study by Mosavi et al., clerics stated that religion recognizes sex drive as a gift from God and has plans for sexual life of people in all stages of life. Therefore, prophets and religious leaders have directions for the sexual life of their followers in their teachings. They believe that prevention of general damage to spiritual health of adolescents is a reason for the necessity of sexual education from a religious point of view. According to religious teachings, education on sexual issues should be offered in a moderate manner (13).

2. Unqualified Educators, Lack of Adequate Training and Access to Inappropriate Information Sources

The adolescents emphasized that educators should be specifically trained for SHE. In some cases, the educators have inadequate superficial knowledge about health services, which makes than unqualified for providing SHE, especially for adolescents (9). According to Mosavi et al, female adolescents mainly gained information on sexual issues from friends, who played an important role in providing inaccurate information. Most of the adolescents admitted that the information was not always accurate. Iranian media offer no sex education, while access to information and communication technology like Satellite TV, Internet, email, and cellphone is now much simpler than before and adolescents are exposed to a lot of sexual information, much of which may be wrong or harmful (13).

3. Improvement of Sexual Health Education Services and the Related Barriers

To provide SHE services, human, physical, technical, and motivational factors should be considered. Special methods should be used to provide SHE to adolescents considering their characteristics and attitudes. Since keeping secrets is of paramount importance to adolescents, healthcare providers should be able to talk to them in private. Adolescents may feel uncomfortable or regretful but the physician should not disappoint them with his/her behavior, and should not act in a way that gives the adolescent a feeling of guilt or embarrassment for seeking help. Allocation of a phone number for sexual health services in cases when an adolescent is unable to visit a health center in person can be considered an alternative to solve their problems (19). In many cases, the adolescents may not be aware of governmental sexual health centers and may not know how to access them. On the other hand, barriers like the costs of visit and sexual health care and trust in doctors limit the utilization of sexual health services (21).

Table 3: Classifications and Challenges Regarding SHE Provision for Adolescents

Javadnoori et al, 2012 (9)	Lack of priority for SHE, Sexual reticence and censorship, Inconsistency of SHE with adolescents' needs, Unqualified educators and lack of appropriate educational materials
LatifnejadRoudsari et al, 2013 (11)	Denial of premarital sex, Social concerns about negative impacts of sexual education on adolescents, Stigma and embarrassment attached to sexual issues and education, Reluctance to discuss sexual issues in public, Sexual discussion as a socio-cultural taboo, Lack of legal support, Intergeneration gap, Religious uncertainties, Imitating non-Islamic patterns of education.
Mosavi et al, 2014 (13)	Lack of adequate knowledge about SRH, Easy access to inaccurate information sources, Cultural and social changes, increased risky sexual behaviors among adolescents, Religion's emphasis on sex training of children and adolescents, Presence of cultural taboos

Alimoradi et al, 2017 (17)	Desirable interaction between families and adolescents, Readiness for puberty and menstruation, Life skills, Spiritual self-monitoring
Mosavi et al, 2020 (19)	Factors associated with policymaking, Benefiting from the religion' s potentials, Social and cultural factors, Public participation, Factors associated with the methods of service delivery

V. Conclusion

According to the results of the present study, the sexual health needs of Iranian adolescents can be categorized into three categories including need for education and counselling, need for planning, and need for parent-adolescent interaction. The identified challenges and classifications regarding providing SHE for adolescents were sexual reticence, censorship and cultural and social taboo and prohibitions; lack of adequate training and access to improper information sources, and unqualified educators; need for improved sexual health education services and the related barriers; concerns about sexually transmitted diseases and pregnancy; and reinforcing the adolescents' interactions with parents and teachers (Figure 2). Adolescents need a comprehensive sexual care program to prevent sexual abuse and harassment and their adverse consequences like unintended pregnancy, illegal abortion, STIs, and HIV/AIDS. In this regard, different factors like the school, family, and related educational institutes have important roles. A desirable family-adolescent relationship is very effective, especially regarding decision-making about self-care while interacting with the opposite sex. Adolescents' discussions with their parents about different issues, like menstruation, puberty, and relationship with the opposite sex play a significant role in their preparedness for self-care. Adolescent sexual health is an important issue that deserves serious attention from authorities for policy-making and implementation, since decisions made to address the health of adolescents will affect the future behaviors, skills, and health outcomes of the whole society. It is recommended that strategies used to create health literacy be considered as part of lifelong learning and be integrated in the educational curriculum of schools from an early age.

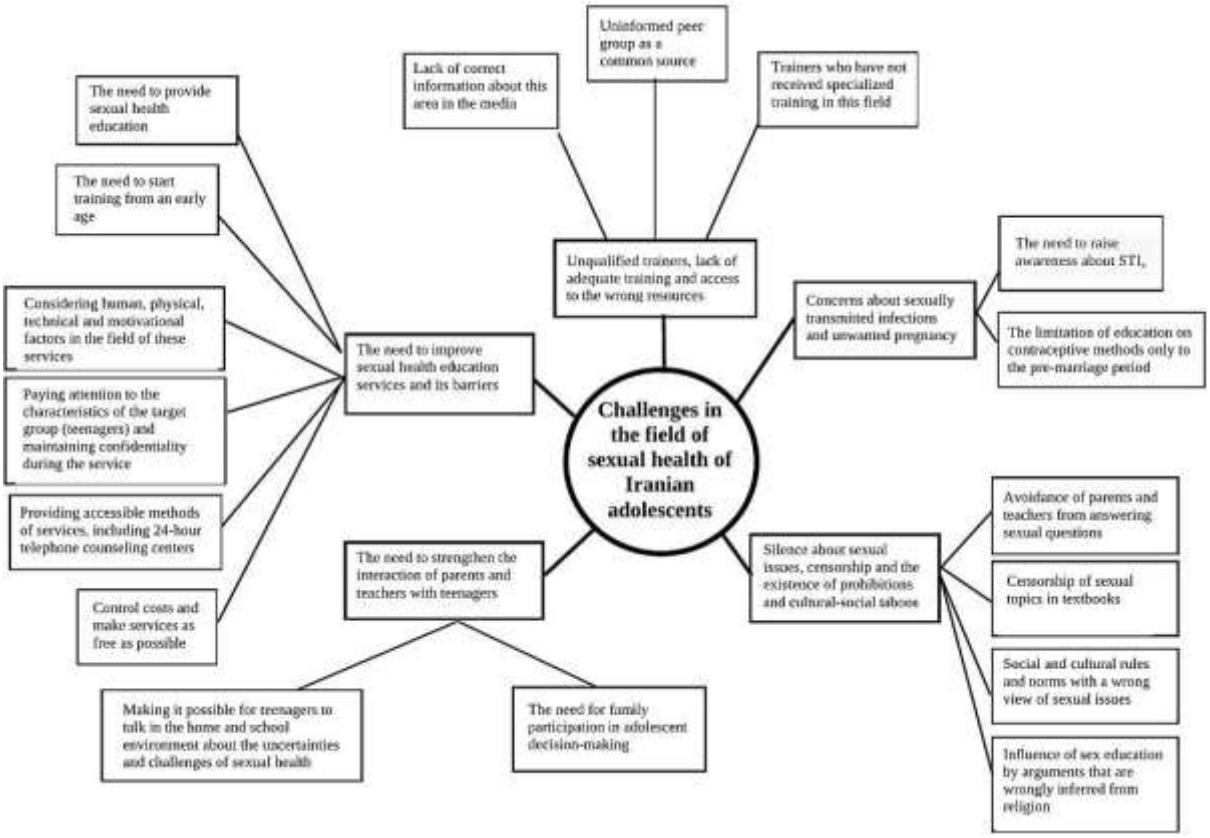

Figure 2: Sexual Health Challenges in Iranian Adolescents

References

[1] Golchin, N. Hamzehgardeshi, Z. et al. The experience of puberty in Iranian adolescent girls: a qualitative content analysis. BMC Public Health 2012, 12:698.
[2] Zare, E. Simbar, M. et al. The Priorities of Iranian Male Adolescents Health Needs. American Journal of Men's Health 2017, 11(4), 1255–1259.
[3] Cherven, B. Sampson, A. et al. Sexual Health Among Adolescent and Young Adult Cancer Survivors: A Scoping Review from the Children's Oncology Group Adolescent and Young Adult Oncology Discipline Committee. Ca Cancer J Clin., 2021; 71:250–263.
[4] Banaei, M. Simbar, M. et al. Barriers of Adolescents' Access to Reproductive and Sexual Health Services in Iran: A Systematic Review. Int J Pediatr., 2019, 7(12): 10555-10522.
[5] Murphya, D. Klosky, J.et al. The need for reproductive and sexual health discussions with adolescent and young adult cancer patients. Contraception, 88 (2013) 215–220.
[6] Cardoza, V. Documet, P.et al. Sexual Health Behavior Interventions for U.S. Latino Adolescents: A Systematic Review of the Literature. North American Society for Pediatric and Adolescent Gynecology, 2012. doi:10.1016/j.jpag.2011.09.011.
[7] Khalesi, Z. Simbar,M. et al. Public sexual health promotion interventions and strategies: A qualitative study. Electronic Physician., 2016, 8(6): 2489-2496.
[8] Kim, C. and Free, C. RecentEvaluations ofthe Peer-Led Approach in Adolescent Sexual Health Education: A Systematic Review. International Family Planning Perspectives, 2008, 34(2):89–96.
[9] Javadnoori, M. LatifnejadRoudsari, R. et al. Female adolescents' experiences and perceptions regarding sexual health education in Iranian schools: A qualitative content analysis. Iranian Journal of Nursing and Midwifery Research, 2012, 17(7): 539-546.
[10] Mazur, A. Brindis, C.et al. Assessing youth-friendly sexual and reproductive health services: a systematic review. BMC Health Services Research, 2018, 18:216.
[11] LatifnejadRoudsari, R. Javadnoori, M. et al. Socio-cultural challenges to sexual health education for female adolescents in Iran. Iran J Reprod Med., 2013, 11(2): 101-110.
[12] Abedian K. and Shahhosseini, Z. University students' point of views to facilitators and barriers to sexual and reproductive health services. Int J Adolesc Med Health, 2014; 26(3): 387–392.
[13] Baheiraei, A. Khoori E. et al. What sources do adolescents turn to for information about their health concerns?. Int J Adolesc Med Health, 2014; 26(1): 61–68.
[14] Mosavi, S. Babazadeh, R.et al. Assessing Iranian Adolescent Girls' Needs for Sexual and Reproductive Health Information. Journal of Adolescent Health, 2014: 1-7.
[15] Shahhosseini Z. and Hamzehgardeshi, Z. Female adolescents' perspective about reproductive health education needs: a mixed methods study with explanatory sequential design. Int J Adolesc Med Health, 2015; 27(1): 57–63.
[16] Shahhosseini, Z. and Abedian, K. Health care providers and adolescents' perspectives towards adolescents' health education needs: a need assessment based on comparative approach. Int J Adolesc Med Health, 2015; 27(1): 73–77.
[17] Khajouei, R. Salehi, F. Health Literacy among Iranian High School Students. Am J Health Behav., 2017;41(2):215-222.
[18] Alimoradi, Z. Kariman, N. et al. Preparation for sexual andreproductive self-care in Iranian adolescent girls: a qualitative study. International Journal of Adolescent Medicine and Health, 2017; 20160094.
[19] Darabi, F. Kaveh, M. et al. The Effect of a Theory of Planned Behavior-based Educational Intervention on Sexual and Reproductive Health in Iranian Adolescent Girls: A Randomized Controlled Trial. JRHS 2017; 17(4): 1-8.
[20] Havaei, M. Salehi, L. et al. Effect of education based on protection motivationtheory on adolescents' reproductive health self-care: arandomizedcontrolledtrial. International Journal of Adolescent Medicine and Health, 2019.
[21] Askari, F. Mirzaiinajmabadi, K.et al. Facilitators of Sexual Health Education for Male Adolescents in Iran: A Qualitative Study. Iranian Journal of Nursing and Midwifery Research, 2020, 348-355.
[22] Mosavi, S. Mirzaii, K. et al. Facilitators of Adolescent Girls' Access to Sexual and Reproductive Health Services in Iran: A Qualitative Study. Preventive Care in Nursing and Midwifery Journal, 2020; 10(3): 67-76.
[23] Sheikhansari, N. Abraham, C. et al. A qualitative assessment of the sexualhealth education, training and service needs of young adults in Tehran. BMC Public Health, 2021, 21:1386.

[24] Torki, M. Dastoorpoor, M. et al. Factors Contributing to Mother–Daughter Talk about Sexual Health Education in an Iranian Urban Adolescent Population. Iranian Journal of Nursing and Midwifery Research, 2021, 26(3): 223-229.

[25] AT Al-Ani W and Jawad Kadhum, M. The study of sexual and reproductive health aspects among secondary schools male students in Babel governorate. Mustansiriya Medical Journal, 2012, 11(2): 34-38.

[26] Moosavinasab SMM, Vahedian-Azimi A, Salesi M, Vahedi E, Karimi Zarchi AA, Khoshfetrat M,et al. A review of 17 years application of continuous care model on the consequences of acute andchronic diseases: describing and assessing the quality of the methodology of papers. Journal ofMilitary Medicine, 2018; 20(1): 27-55.