

Original Article



Exploration of Barriers and Facilitators of Sexual Health Information-Seeking Behaviors Among Teenage Girls in Rasht

Raziyeh Khodadadi¹, Fardin Alipour¹, Zoleikha Arabkari¹

¹Department of Social Work, Social Welfare Management Research Center, Social Health Research Institute, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

Article history:

Received: March 13, 2023

Revised: May 7, 2023

Accepted: June 22, 2023

ePublished: June 30, 2023

***Corresponding author:**

Fardin Alipour,

Email: barbodjalipor@gmail.com

Abstract

Background: Teenage girls who are passing through sensitive puberty time are among the vulnerable ones whose sexual health information needs have not received sufficient attention. The present article aimed to explore barriers and facilitators of sexual health information-seeking behaviors (SHISB) among teenage girls in Rasht in 2022.

Methods: The present study was performed using a qualitative method based on conventional content analysis. The participants were selected by the maximum variation sampling method and included 15 teenage girls in the age range of 15-21 years old and 5 key adults, including mothers, teachers, and sexual health specialists. Data were collected by the semi-structured interview technique and then analyzed using Landman and Granheim's approach.

Results: According to the results of the present study, 7 main categories and 25 subcategories were extracted, including barriers, facilitators, motivations, and resources for seeking sexual health information. The main categories were individual barriers, family inappropriate performance, cyber threats, social inhibitors, facilitating elements of information seeking, information seeking motivation, and channels of sexual health literacy.

Conclusion: In addition to clarifying the barriers and facilitators of seeking sexual health information among teenage girls, the findings also point to the necessity of providing educational situations to learn sexual health topics. Therefore, the present study suggests the necessity of family institution, health, and education cooperation, along with formulating community-oriented programs to support teenage girls' information needs, changing the family and society's point of view considering sexual health.

Keywords: Sexual health, Adolescent, Information seeking behavior, Qualitative research



Please cite this article as follows: Khodadadi R, Alipour F, Arabkari Z. Exploration of barriers and facilitators of sexual health information-seeking behaviors among teenage girls in Rasht. J Educ Community Health. 2023; 10(2):94-101. doi:10.34172/jech.2023.2317

Introduction

Information is the key to success in the 21st century. The need for information comes secondary to basic needs such as food, shelter, and clothing (1). Needing information means the desire to find and access it in order to satisfy a conscious or unconscious need (2). It also leads to the formation of information-seeking behavior, and sexual health-related discussion is one of the fields of information seeking (3). According to the definition of the World Health Organization (WHO), sexual health is "a state of physical, emotional, mental, and social well-being in relation to sexuality. It is not merely the absence of disease, dysfunction, or disability" (4). Teenagers are a group of sexual health information seekers. The American Academy of Pediatrics divides teenage years into early (12-14 years), middle (17-15 years), and final (18-21 years) stages (5).

At present, out of 1.2 billion teenagers, almost 90% of them live in developing countries (6); based on the last

national statistics, 20.4% of Iran's population (about 16 million people) are between the ages of 11 and 24 (7). Teenagers often have more desire to seek sexual health information compared to the older groups (8). They are further facing the risk of fertility and sexual problems, including pregnancy, abortion, sexually transmitted infections, human immunodeficiency virus/acquired immunodeficiency syndrome, and other fertility-threatening problems (9). This is much more prominent among teenage girls. Statistics indicate that teenage girls are at a higher risk of early pregnancy, unsafe abortion, and female genital circumcision (10). According to the WHO statistics, about 16 million teenage girls between the ages of 15 and 19 and 1 million teenage girls under 15 years old get pregnant all over the world yearly (11). Unsafe abortion risk is higher among teenage girls aged 15-19 which occurs about 3 million ones annually (6). The sexual health discussion depends on the cultural context, and there are various approaches concerning this concept



in different countries around the world. Sexual culture is historically conservative in Iran; while there are some taboos in some of its aspects according to religious issues (Islam), there are restrictions on the type of clothing and friendship and sexual relationships.

According to the results of some studies, Iranian girls' knowledge about fertility and sexual health issues is low, superficial, and incomplete (12). Sexual health information-seeking behaviors (SHISB) have been investigated in some aspects. It has been severely ignored in Iran while many of its aspects still need an investigation. Some studies have focused on sexual health education barriers and facilitators among Iranian teenage boys (13,14), assessment of sexual education needs (15,16), barriers to health education in schools (17), and the girls' challenges in seeking information and the fertility health (18,19). Some global studies have also been performed about sexual health information-seeking obstacles and challenges on the internet (20,21), information sources (22), sexual health information-seeking results (3), and technology usage (23,24).

However, it is still unknown from which source teenage girls get their sexual health information, and what barriers and facilitators they face in information seeking.

The lack of scientific knowledge in this field is a good reason to evaluate the SHISB of teenagers. Therefore, this study sought to explore the barriers and facilitators of SHISB among teenage girls in Rasht. It also aimed to delve into the barriers and facilitators of SHISB among teenage girls in Rasht.

Materials and Methods

The philosophy of the present study is interpretive. In this approach, everything was studied in its natural environment, understood, and interpreted based on the meanings people provided for them (25). It was conducted with the qualitative content analysis method and a contractual approach based on Landman and Granheim's data analysis approach. Conventional content analysis is used as a systematic method to deeply describe the phenomenon and is suitable for examining people's experiences regarding a specific issue (26). The participants of this research included 15 single teenage girls aged 15-21 living in Rasht and 5 key adults, including mothers, teachers, and sexual health experts which had knowledge and experiences related to target group. The participants were selected by the maximum diversity variation sampling method.

The sampling process continued until reaching data saturation. The interviews were conducted between January 2021 and July 2022. Obtaining the relevant permissions, being aware of the purpose, and obtaining consent from the participants were observed in this study.

Face-to-face interviews were conducted in the presence of volunteers considering their convenience and satisfaction in places such as public libraries, parks, coffee shops, sports clubs, and shopping centers. Information

was collected through semi-structured interviews over 30-90 minutes in the form of open questions. To start the interview, considering the topic's importance, the researcher started each interview with general, open, and interpretive questions. As soon as establishing proper communication and being trusted by the participants, the process was continued with more detailed questions. Questions such as "How do you find your answer while facing a question or problem about puberty health?", "What are the obstacles and challenges you usually face seeking information about puberty health?", and "What are your preferred sources for accessing information related to this field?" The questions were followed based on the participants' answers with exploratory ones such as "Can you explain more?", "Can you explain what you mean by this sentence more precisely", and "Do you mean that..." Eventually, the participants were asked whether any questions have been left or not. All the conversations were audio-recorded during the interview permitted and desired by the participants to be checked carefully later. The participants' nonverbal behavior (e.g., tone of voice, emotions, and facial expressions) has also been noted and written down to be carefully checked later.

After recording, each interview was listened to several times by the first author. Then, it was written down line by line on a piece of paper. The obtained data were simultaneously reread to get a general understanding of it. Next, the units of meaning were determined in the form of sentences and paragraphs, and primary codes were assigned accordingly. Finally, these codes were categorized based on similarities and differences in subcategories and categories. To ensure the authenticity and trustworthiness of this qualitative research, 5 criteria of credibility, dependability, confirmability, transferability, and authenticity were used based on data from previous research (27). To this end, the creditability of present research was achieved by the long-term involvement with the participants. The first author also attempted to prepare the extracted codes and categories regularly for the supervisors in the qualitative research. For data transferability, while respecting maximum diversity, the first author collected the background, culture, characteristics, and the participants' statements to follow the research path. Ultimately, to ensure research authenticity, long-term interactions were kept with the participants and the first authors' notes.

Results

This research was conducted with the aim of analyzing the barriers and facilitators of SHISB among teenage girls in Rasht in 2022. The participants of this study included 15 teenage girls aged 15-21 and 5 key experienced adults (mothers, teachers, and sexual health specialists). The average age of participating teenage girls was 18.1 years. Overall, 4 and 6 people had a bachelor's degree and a diploma, respectively, and 5 participants have first and second high school education. In this study, 7 main

categories and 25 subcategories were extracted (Table 1), which will be explained in detail below.

Individual Barriers

One of the main categories is the individual barrier, which indicates that teenage girls’ excitement, skills, knowledge, and beliefs are considered a barrier to accessing accurate sexual health information. This category is made of 4 subcategories, including “Adolescence’s excitement”, “Teenage information deficiency”, “Teenage communicative weaknesses”, and “Fear of being judged”.

Adolescence’s Excitement

These excitements included showing impulsive and emotional behaviors, not having abstinence and control in relationships with the opposite sex, starting a friendship with the other sex, knowing sex as a right, and being interested in discovering new experiences, which sometimes lead to high-risk sexual behaviors in some cases.

“I think I’m old enough to have a relationship. Well, it is not like the past years when there was no relationship between people, many people have relations nowadays” (P2).

“That’s right. I accept it for some ages like middle school which is a very sensitive age, a person falls in love very quickly and does many other things quickly too” (P10).

Teenage Information Deficiency

In most cases, these participants have incomplete, inaccurate, and exaggerated information about sexual

health issues, resulting in confusion and anxiety.

“For example, I saw my friends easily kiss a boy and the spittle is exchanged. You know, they stick to each other, the spittle is so much important (with a laugh) and I wondered (looking like a surprised or disgusted one) to ask whether they were sure about him not having hepatitis. Wasn’t anything wrong with him? Later, you will get his disease, etc. Then, they said (smiling with an indifferent look), no it’s only a kiss. But generally, there is very little information about sexual health among my peers.” (P11)

Teenage Communicative Weaknesses

These teenagers are usually ashamed to raise their sexual questions, and sometimes when family or school provides them with limited and insensitive sex education, they do not have enough self-confidence to ask their parents or teachers to speak more clearly.

“Sometimes when I had a sexual question and not able to ask anyone, I searched Google” (P14).

Fear of Being Judged

This subcategory refers to teenage girls’ fears and concerns of being judged.

“I don’t ask anyone now; it hasn’t still occurred to me. But previously, when I was younger, a child, I faced many questions like “What do you want it for?” or “Why do you want to know it?” (P6).

Family Inappropriate Performance

One of the main categories is the family’s inappropriate performance as it plays a highly prominent role in suppressing sexual curiosities and opposing sexual health education, and this undesirable performance has led many teenage girls to search for information outside the family atmosphere. This category consists of 5 subcategories, namely, “Family’s insufficient knowledge”, “Family’s negligence in sexual health education”, “Fear of teenagers’ deviation after being educated”, “A weak relation between teenagers and their families”, and “Family’s disagreement with sexual health education at school”.

Family’s Insufficient Knowledge

This subcategory was related to the families’ low, incomplete, and old knowledge in providing sexual information to their children.

“In fact, considering the family dimension, families are not educated enough so they cannot provide adequate education to their children too. When a family is not educated and the parents are not educated, there is no knowledge to be transferred to the student or teenager. The family should be educated enough to transfer it to their children. The main problem I face while interviewing teenagers is that my parents themselves have no knowledge as a result they are not able to provide information to me” (P18).

Table 1. Categories and Subcategories

Category	Subcategory
Individual barriers	Adolescence’s excitements
	Teenage information deficiency
	Teenage communicative weaknesses
	Fear of being judged
Family inappropriate performance	Family’s insufficient knowledge
	Family’s negligence in sexual health education
	Fear of teenagers’ deviation after being educated
	A weak relationship between teenagers and their families
	Family’s disagreement with sexual health education at school
Cyber threats	Internet incorrect information
	Internet contradictory information
	Cultural invasion to teenage
Social inhibitors	Schools lacking sexual education
	Lack of specialists and educated people
	Lack of specific policies
Facilitating elements of information seeking	Ease of obtaining information at the university
	Extensive internet database
Information-seeking motivation	Increasing awareness
	Acceptance in peer groups
Channels of sexual health literacy	Social media
	Social network
	Experts’ knowledge

Family's Negligence in Sexual Health Education

Most families have a neutral position toward this issue; they prefer late sex education from a channel other than family while delaying in answering their teenagers' sexual questions.

"It refers to the family, it is a responsibility I think, (pause); of course, you didn't get us from the jungle so it's more logical to tell us the truth, prevent us from getting angry and being bothered. We don't like those either transferring the whole data or denying it completely. I have never seen such a family (pause) to tell the truth, a family who tells the truth or even deprives, children would be highly bothered." (P11)

Fear of Teenager's Deviation After Being Educated

From these families' point of view, providing sexual education to teenagers can cause their involvement in sexual behavior.

"Perhaps they think we will be curious to do that, maybe they think so, it can be really the case and it's still too early". (P12).

A Weak Relation Between Teenagers and Their Families

According to the idea of the majority of participants, the lack of a suitable situation for speaking, parents' emotional deficiencies, aggressive tone of speech, and teenagers' lack of love result in staying away from the family and not forming a friendly relationship.

"Sometimes a question comes up; they don't explain it but act very angrily. Although my mom was much calmer (emphasizing the word very), adults usually act very nervous" (P11).

Family's Disagreement With Sexual Health Education at School

One of the inappropriate and notable functions of the family is that it is against any kind of sex education for teenagers, even outside the family environment.

"But, there are some restrictions from the other side. If you teach the children something in this regard, later his mother will complain about it?" (P11)

Cyber Threats

The category of cyber threats indicates that the incorrect and sometimes contradictory information of the Internet, as well as the excessively manipulated and exaggerated information publication in cyberspace, can cause anxiety and confusion in teenage girls. This category includes 3 subcategories, namely, "Internet incorrect information", "Internet contradictory information", and "Cultural invasion to teenage".

Internet Incorrect Information

Based on some participants' ideas, internet information is usually incorrect and exaggerated and lacks reliable scientific sources.

"I searched the net but did not find any correct answer;

for example, you may be suffering from a very simple cold but it exaggerates it for you which may cause stress" (P2).

Internet Contradictory Information

Although most of the participants use the Internet as a source of information, they believe that the contradiction between various information available on the Internet requires many verifications.

"No, I never use it because anyone says anything he likes and it causes stress. My cousin was sick and anyone had an idea, "What has happened to her? Is she sick? All of which causes more stress" (P8).

Cultural Invasion to Teenage

This subcategory represents that the Internet and its abuse by individuals present wrong, extreme, and exaggerated information to teenagers. According to the participants, this way of getting to know about sexual topics suddenly threw them from the world of childhood to adolescence.

"I always thought about something which bothered me. I wonder if I didn't get to know it in that way; too manipulated information or exaggerated movies. They activate unnecessary things in your body, decrease your concentration, and keep you away from childhood. It is true that you have to grow up but it takes you out in a wrong way" (P11).

Social Inhibitors

The social inhibitor in the present study included barriers made by the social environment on the way of teenage girls access sexual health information. It encompasses subcategories such as "Cultural taboos", "Common inappropriate beliefs", "Restrictive religious beliefs", "Schools lacking sexual education", "Lack of specialists and educated people", and "Lack of specific policies".

Cultural Taboos

This subcategory indicates that parents stick to old traditions, consider sexual discussions a taboo, and feel ashamed and embarrassed to speak clearly and straightforwardly about this topic.

"As the saying goes, we are open-minded but the sex topic seems to be boycotted everywhere. No one really pays attention to it. It doesn't matter if your family is open-minded or don't pay so much attention to it." (P13).

Common Inappropriate Beliefs

Another barrier is the common inappropriate beliefs about teaching and presenting sexual education to teenage girls, and the family and society's adherence to it.

"But again, this goes back to those thoughts that say, wow, she is so rude (with a smile), they don't teach such things in Iran now (with a smile). The main reason refers to the fact that now, they feel (pause with laughter) we would get rude after getting informed about sexual matters but it's exactly incorrect" (P8).

“I have seen some people who think that the child will get rude” (P13).

Restrictive Religious Beliefs

The family’s religious’ beliefs, the religious authority ruling the society, and the resulting restrictions on sexual topics were considered the other barrier category.

“In my opinion, it depends on certain factors, some of us have religious roots (e.g., my father’s family). (pause) No matter what we do, religious roots cannot be cut off, and it has been inducted not to speak about it” (P13).

Schools Lacking Sexual Education

This subcategory represents that no organized education about sexual health has been planned to be taught at schools. Sometimes some of the consultants or teachers present some basic, unclear explanations in the framework of school books so that participants mostly experience the feeling of getting confused and being deviated from the discussion.

“I mostly feel that they don’t like to accept the responsibility of informing people because when they talk to people, it is clear that if they tell 10% of this issue, they will keep 90% of the rest to themselves. I feel that they are aware of it, but they don’t want to tell” (P11).

“When I was younger in secondary school, I asked my health teacher about sexual health, she tried to deviate from the discussion and not to answer me. Suddenly I noted that we were talking about the heart, blood vessels, liver, and such things” (P6).

Lack of Specialists and Educated People

In this subcategory, the participants complained about the lack of sexual health specialists at the community level and the poor performance of the community in providing information on how to access these people.

“If there were some centers like school, for example (emphasizing the word school), one would easily ask his questions from specialized people those who have been educated in this field” (P6).

Lack of Specific Policies

This subcategory stated the participants’ opinion that there is no legal basis for sexual health education in society, most principals and non-major managers are afraid of the legal consequences of independently planning and teaching sexual topics at schools.

“I haven’t still said it because this is exactly like political subjects, we can’t bring this topic up unless the manager permits” (P17).

Facilitating Elements of Information Seeking

They are the elements that facilitate teenage girls’ access to sexual health information. This category includes two subcategories, namely, “Ease of obtaining information at the university” and “Extensive Internet database”.

Ease of Obtaining Information at the University

This subcategory points to the perspective of participants who were admitted to the university. They did not encounter the same process they had experienced at home and school in facing sexual questions at the university, and this made them feel free to raise their questions.

“But for example, when you enter a larger society or a university, you find that your professor speaks easily with no shame in front of 50 or 60 students while most of us are looking down thinking about the presence of some boys in the class. The professor considers this subject a scientific issue rather than an embarrassing one” (P10)

Extensive Internet Database

The huge amount of information on the Internet and its availability was mentioned as a facilitating element in the process of searching for sexual health information by most participants.

“I search Google whenever I have a question” (P2).

“Umm, Internet database, Google, is really complete in any field” (P6).

Information Seeking Motivation

This category represents participants’ motivations for seeking sexual health information and includes 2 subcategories of “Increasing awareness” and “Acceptance in peer groups”.

Increasing Awareness

Teenage girls need to search for information about sexual health topics for various reasons such as maintaining health, supplementing information, satisfying curiosity, and being up-to-date. Therefore, they attempt to increase their knowledge and awareness and satisfy their needs.

“I was more curious at first when I searched Google but now I try to be more aware” (P15).

Acceptance in Peer Groups

This subcategory seeks information and increases knowledge in order to increase acceptance among peers. It was highly prominent for them to be noted as information-seeking motivation.

“Sometimes my friends ask me a question and I don’t like to say “I don’t know the answer”, or it’s a kind of detraction for me” (P14).

“As I don’t have information about a subject but like to know, I couldn’t be updated among my peers” (P11).

Channels of Sexual Health Literacy

The last category refers to the channels through which teenage girls search for sexual health information. The most important channels used for sexual health literacy included the subcategories of “Social media”, “Social network”, and “Experts’ knowledge”.

Social Media

The social media included Instagram App, the Google

search engine, and Liom App.

“Instagram is much better. There is some information that I don’t know at all (with an emphasis on the word). I may not search for something in Google but may see it suddenly on Instagram and be curious about it. I think Instagram is much better” (P7).

“If I have a question about sexual things, the first option is the internet and most of the time Google. The available information is detailed” (P6).

Social Networks

The subcategory of social networks encompasses family members (mother, father, and sister) and peers.

“I am really comfortable with my mom asking her any question I have” (P3).

“Whatever I know is transferred to me from my school classmates and friends whether they knew or searched on the net” (P5).

Experts’ Knowledge

This subcategory indicates that research participants are willing to use the specialists’ knowledge concerning sexual health. It included experts, psychologists, counselors, and sometimes sexual health specialists.

“Counselors are very good at transferring this information to people. Clinical and sexual consultants or those who have a degree in sexology can help people very easily. One of my teachers was educated in sexology. If I have any questions, I will ask him.” (P3).

Discussion

The present study evaluated the barriers and facilitators of SHISBs among teenage girls in Rasht in 2022. The participants of this study consisted of fifteen 15-21-year-old teenage girls and 5 key adults, including mothers, teachers, and sexual health specialists. Based on the research results, 7 main categories and 25 subcategories were extracted, including barriers, facilitators, motivations, and resources for seeking sexual health information. The main categories were individual barriers, family inappropriate performance, cyber threats, social inhibitors, facilitating elements of information seeking, information-seeking motivation, and channels of sexual health literacy.

The study results indicated that the teenage period may be a sensitive one as a result of experiencing increased emotions, willing to be friends with the opposite sex, and having sexual relations (18,19). Teenagers have incomplete information about sexual topics, while shame, embarrassment, lack of sufficient self-esteem, and fear of being judged also prevent them from raising sexual questions. Other studies also confirmed these findings (14-16,19-21,28). According to the insufficient knowledge of families, the study results revealed that parents lacking sufficient information about sexual health agree with the results of the study by Simber et al, considering the awareness and need for family sex education (15). One of the reasons for refusing sexual health education is the

family fear of teenagers’ deviation after being educated other than cultural issues and not having enough information. This is contrary to the results of several studies (28-31). Families cannot play a role in sexual health as a result of their weak relationship with their teenagers. They also keep away more from their children because of emotional weakness and aggression while facing these types of questions. Studies conducted around the world have shown that improving family members’ communication quality can greatly prevent the process of risky behaviors among teenagers (32-34). Iranian families also disagree with a few efforts performed at schools in this area (34). The results also confirmed these consequences. At present, by the existence of the Internet, an intellectual and emotional separation has occurred among teenagers, parents, and teachers. Teenagers used the internet to satisfy their information needs, but they faced wrong and contradictory information and the danger of being abused by cultural invasion, which is in line with the findings of some studies (15,19,20,35-38).

In addition to the mentioned obstacles, teenagers are also facing many barriers at the community level, including cultural taboos and negative custom-related views. Teenagers’ sexual education is one of the most challenging cultural and social factors as a result of topics such as the fear of girls’ modesty being opposed and the negative attitude toward it. In this regard, the United Nations Population Fund asserts that taboos, beliefs, and traditions may prevent young people from accessing the necessary information (39). The existence of incorrect views and fairy tales preventing teenagers’ access to the necessary information was also mentioned in this regard (10). From the Islamic point of view, informing teenagers about sexual topics and related ethical morals is their parents’ duty. The results of research by Merghati Khoei et al also demonstrated that family faith and religious beliefs in upbringing children are important factors in ethical health and moderation (40). The research findings indicated that tenacious religious beliefs of the family and society are a barrier against teenage girls’ seeking sexual health, leading them to other sources to get inappropriate and exaggerated information. As a result, teenagers may be involved in sexual behaviors, and their health be threatened accordingly. Despite the mentioned barriers, the schools also do less in teaching sexual health. Teachers, counselors, and other school clerks not desiring to teach sexual topics usually deviated from the topic by raising limited and unclear explanations. Studies performed in this field in Iran also verify the present study findings (14). In addition to the mentioned barriers, there are some even limited facilitators that pave the teenage girls’ way to access sexual health.

One of these facilitating elements is the university environment as an arena that makes it easy to seek and access sexual health information. This finding was solely obtained by the present study participants. Although sexual health information reliability was mentioned as

the teenage girls' concern, the ease of accessing online databases is investigated as another facilitator element coordinated by the results of other studies (3,23,24). Increasing awareness and acceptance in the peer group, which emerged as a novel and unique concept from the findings of this research, was recognized as a motivator for seeking sexual health information among teenage girls. Some strong points of the present study were the subject novelty and the qualitative combination of the two concepts of "information seeking behavior" and "sexual health". On the other hand, among the limitations of the present research, we can point to difficult access to study samples as a result of the subject socio-cultural sensitivities and the noncooperation of some individuals. The other limitations were a lack of resources and rich scientific references in this field because of subject novelty and the noncooperation of governmental organizations such as the Ministry of Education to access the samples and conduct research on unisexual participants. To investigate the subject more accurately, it is recommended that future qualitative research should be performed on teenagers of both genders. In addition to qualitative research, quantitative and interventional studies are recommended as well. Focusing on the role of facilitators and considering barriers and challenges in developing educations, interventions, and programs can lead to more attention to the information needs of this group, the necessary information, and services to satisfy these needs, thus promoting teenage sexual health maintenance. The present study can also be helpful for planners, politicians, and specialists to edit clear policies, creating education-oriented and supporting programs for sexual health subjects in the country.

Conclusion

Obstacles that were stated by participants to access sexual health information can be removed by policy, changes in textbooks, normalization of teaching, and creation of discourse in society.

Acknowledgments

The authors appreciate all the people who participated in the study.

Authors' Contribution

Conceptualization: Fardin Alipour.

Data curation: Razieh Khodadadi.

Formal analysis: Razieh Khodadadi.

Investigation: Razieh Khodadadi.

Methodology: Fardin Alipour.

Project administration: Zolaikha Arabkari.

Resources: Zolaikha Arabkari.

Supervision: Fardin Alipour.

Validation: Zolaikha Arabkar, Fardin Alipour.

Visualization: Zolaikha Arabkari.

Writing–review & editing: Zolaikha Arabkari.

Competing Interests

The authors have no conflict of interests associated with the material presented in this paper.

Ethical Approval

This research was approved by the Ethics Committee of University of Social Welfare and Rehabilitation Sciences, Tehran, Iran (Code:IR.USWR.REC.1400.264).

References

1. Naumer CM, Fisher KE. Information needs. In: Encyclopedia of Library and Information Sciences. 4th ed. CRC Press; 2017.
2. Ghasemi A. "Information Need" or "Informational Need". 2020. https://www.researchgate.net/publication/344855776_Information_Need_or_Informational_Need.
3. Mitchell KJ, Ybarra ML, Korchmaros JD, Kosciw JG. Accessing sexual health information online: use, motivations and consequences for youth with different sexual orientations. *Health Educ Res.* 2014;29(1):147-57. doi: 10.1093/her/cyt071.
4. World Health Organization (WHO). Defining Sexual Health: Report of a Technical Consultation on Sexual Health, 28-31 January 2002. Geneva: WHO; 2006. Available from: [https://www.scrip.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/reference/ReferencesPapers.aspx?ReferenceID=1998000](https://www.scrip.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=1998000).
5. Flood T, Wilson IM, Prue G, McLaughlin M, Hughes CM. Impact of school-based educational interventions in middle adolescent populations (15-17yrs) on human papillomavirus (HPV) vaccination uptake and perceptions/knowledge of HPV and its associated cancers: a systematic review. *Prev Med.* 2020;139:106168. doi: 10.1016/j.ypmed.2020.106168.
6. Hailemariam S, Gutema L, Agegnehu W, Derese M. Challenges faced by female out-of-school adolescents in accessing and utilizing sexual and reproductive health service: a qualitative exploratory study in Southwest, Ethiopia. *J Prim Care Community Health.* 2021;12:21501327211018936. doi: 10.1177/21501327211018936.
7. Khalajabadi Farahani F. Adolescents and young people's sexual and reproductive health in Iran: a conceptual review. *J Sex Res.* 2020;57(6):743-80. doi: 10.1080/00224499.2020.1768203.
8. Magee JC, Bigelow L, Dehaan S, Mustanski BS. Sexual health information seeking online: a mixed-methods study among lesbian, gay, bisexual, and transgender young people. *Health Educ Behav.* 2012;39(3):276-89. doi: 10.1177/1090198111401384.
9. Odo AN, Samuel ES, Nwagu EN, Nnamani PO, Atama CS. Sexual and reproductive health services (SRHS) for adolescents in Enugu state, Nigeria: a mixed methods approach. *BMC Health Serv Res.* 2018;18(1):92. doi: 10.1186/s12913-017-2779-x.
10. Mutea L, Ontiri S, Kadiri F, Michielesen K, Gichangi P. Access to information and use of adolescent sexual reproductive health services: qualitative exploration of barriers and facilitators in Kisumu and Kakamega, Kenya. *PLoS One.* 2020;15(11):e0241985. doi: 10.1371/journal.pone.0241985.
11. Rashidi Fakari F, Simbar M, Ghasemi V, Saei Gharenaz M. Inhibitors and facilitators of unwanted adolescent pregnancy in Iran and the world: a review. *Evid Based Care.* 2017;7(2):59-70. doi: 10.22038/ebcj.2017.25048.1556.
12. Memari S, Khanifar H, Mehran G, Yazdani H, Fereiduni S. Examining the concept of sexual health of adolescent students from the perspective of experts with a focus on parent education. *J Qual Res Health Sci.* 2020;8(3):247-59. [Persian].
13. Askari F, Mirzaiinajmabadi K, Saeedy Rezvani M, Asgharinekah SM. Facilitators of sexual health education for male adolescents in Iran: a qualitative study. *Iran J Nurs Midwifery Res.* 2020;25(4):348-55. doi: 10.4103/ijnmr.IJNMR_299_19.
14. Askari F, Mirzaiinajmabadi K, Saeedy Rezvani M, Asgharinekah SM. Sexual health education issues (challenges) for adolescent boys in Iran: a qualitative study. *J Educ Health Promot.* 2020;9:33. doi: 10.4103/jehp.jehp_462_19.
15. Simbar M, Alizadeh S, Hajifoghaha M, Golezar S. Review of Iranian adolescents' educational needs for sexual and

- reproductive health. *J Isfahan Med Sch.* 2017;34(412):1563-72. [Persian].
16. Afshary P, Pazhohideh SZ, Yazdi Zadeh H, Mohammadi S, Tabesh H. Survey educational needs of 11-14 years old girls about sexual health. *J Holist Nurs Midwifery.* 2016;26(1):1-9. [Persian].
 17. Kamalikhah T, Rahmati F, Karimi M. Barriers of reproductive health education in schools. *Zahedan J Res Med Sci.* 2012;14(2):e93587. [Persian].
 18. Mirzaii Najmabadi KH, Babazadeh R, Mousavi SA, Shariati M. Iranian adolescent girls' challenges in accessing sexual and reproductive health information and services. *J Health.* 2018;8(5):561-74. [Persian].
 19. Mirzaii Najmabadi KH, Babazadeh R, Shariati M, Mousavi SA. Iranian adolescent girls and sexual and reproductive health information and services: a qualitative study. *Iran J Obstet Gynecol Infertil.* 2014;17(92):9-18. doi: [10.22038/ijogi.2014.2629](https://doi.org/10.22038/ijogi.2014.2629). [Persian].
 20. Patterson SP, Hilton S, Flowers P, McDaid LM. What are the barriers and challenges faced by adolescents when searching for sexual health information on the internet? Implications for policy and practice from a qualitative study. *Sex Transm Infect.* 2019;95(6):462-7. doi: [10.1136/sextrans-2018-053710](https://doi.org/10.1136/sextrans-2018-053710).
 21. McKellar K, Sillence E, Smith MA. Sexual health experiences, knowledge and understanding in low SES female teenagers: a diary approach. *J Adolesc.* 2019;73:122-30. doi: [10.1016/j.adolescence.2019.02.006](https://doi.org/10.1016/j.adolescence.2019.02.006).
 22. Alquaiz AM, Almuneef MA, Minhas HR. Knowledge, attitudes, and resources of sex education among female adolescents in public and private schools in Central Saudi Arabia. *Saudi Med J.* 2012;33(9):1001-9.
 23. Nguyen MX, Krishnan A, Le GM, Nguyen QT, Bhadra NM, Nguyen SM, et al. The use of technology to find sexual health information online among men who have sex with men in Hanoi, Vietnam, 2016. *Int J STD AIDS.* 2018;29(5):505-10. doi: [10.1177/0956462417738680](https://doi.org/10.1177/0956462417738680).
 24. Zhang J, Nurik C, Jemmott JB. Boundaries of sexual communication: a mixed-method study exploring Chinese young adults' engagement with online sexual health information. *Sex Health.* 2016;13(3):281-8. doi: [10.1071/sh16009](https://doi.org/10.1071/sh16009).
 25. Sawatsky AP, Ratelle JT, Beckman TJ. Qualitative research methods in medical education. *Anesthesiology.* 2019;131(1):14-22. doi: [10.1097/aln.0000000000002728](https://doi.org/10.1097/aln.0000000000002728).
 26. Elo S, Kyngäs H. The qualitative content analysis process. *J Adv Nurs.* 2008;62(1):107-15. doi: [10.1111/j.1365-2648.2007.04569.x](https://doi.org/10.1111/j.1365-2648.2007.04569.x).
 27. Polit DF, Beck CT. *Nursing Research: Generating and Assessing Evidence for Nursing Practice.* 10th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2017.
 28. Askew I, Chege J, Njue C, Radeny S. *A Multi-Sectoral Approach to Providing Reproductive Health Information and Services to Young People in Western Kenya: The Kenya Adolescent Reproductive Health Project.* Washington, DC: Population Council; 2004.
 29. Agbemenu K. *A Critical Examination of Comprehensive Sex Education Programmes Targeting Girls Between the Ages of 14-18 [dissertation].* Kenya, East Africa: University of Pittsburgh; 2009.
 30. Kirby DB, Laris BA, Rollieri LA. Sex and HIV education programs: their impact on sexual behaviors of young people throughout the world. *J Adolesc Health.* 2007;40(3):206-17. doi: [10.1016/j.jadohealth.2006.11.143](https://doi.org/10.1016/j.jadohealth.2006.11.143).
 31. Faghihi AN, Shokoohi-Yekta M, Parand A. Sexual education of children and adolescents based on Islamic view and psychological studies. *Journal of Islamic Education.* 2009;3(7):51-80. [Persian].
 32. 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(1):59-66. doi: [10.1016/j.amepre.2005.09.013](https://doi.org/10.1016/j.amepre.2005.09.013).
 33. Miller KS, Kotchick BA, Dorsey S, Forehand R, Ham AY. Family communication about sex: what are parents saying and are their adolescents listening? *Fam Plann Perspect.* 1998;30(5):218-35.
 34. Iqbal S, Zakar R, Zakar MZ, Fischer F. Perceptions of adolescents' sexual and reproductive health and rights: a cross-sectional study in Lahore district, Pakistan. *BMC Int Health Hum Rights.* 2017;17(1):5. doi: [10.1186/s12914-017-0113-7](https://doi.org/10.1186/s12914-017-0113-7).
 35. Ghenai A. Health misinformation in search and social media. In: *Proceedings of the 2017 International Conference on Digital Health. Association for Computing Machinery (ACM);* 2017. p. 235-6. doi: [10.1145/3079452.3079483](https://doi.org/10.1145/3079452.3079483).
 36. Brady JT, Kelly ME, Stein SL. The trump effect: with no peer review, how do we know what to really believe on social media? *Clin Colon Rectal Surg.* 2017;30(4):270-6. doi: [10.1055/s-0037-1604256](https://doi.org/10.1055/s-0037-1604256).
 37. Waszak PM, Kasprzycka-Waszak W, Kubanek A. The spread of medical fake news in social media – the pilot quantitative study. *Health Policy Technol.* 2018;7(2):115-8. doi: [10.1016/j.hlpt.2018.03.002](https://doi.org/10.1016/j.hlpt.2018.03.002).
 38. Valero PP, Oliveira L. [Fake news: a systematic review of the literature]. *Observatorio.* 2018;12(5):54-78.
 39. United Nations Population Fund. *Adolescent and Youth 2008.* Available from: www.unfpa.org/adolescentsandyouth/.
 40. Merghati Khoie E, Abolghasemi N, Taghdisi MH. Child sexual health: qualitative study, explaining the views of parents. *Journal of School of Public Health and Institute of Public Health Research.* 2013;11(2):65-74. [Persian].