



Empowerment of Mothers Concerning Female Adolescent's Reproductive Health in Iran: A Qualitative Study

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Abstract

Objectives: The current study was intended to examine the empowerment of mothers concerning their adolescent girls' reproductive health in Iran.

Materials and Methods: Content analysis was used in this qualitative research and purposive sampling technique was performed until reaching data saturation. In addition, the study sample included 26 mothers, with 11-19 years old daughters living in Khorram Abad, and 14 key informants. Finally, semi-structured interviews were conducted for data collection, followed by using conventional content analysis to analyze the data by MAXQDA10 software.

Results: Based on the aim of the study, 4 themes and 11 main categories each with some subcategories were extracted including "proper family-adolescent interaction (i.e., the establishment of healthy parent-children relationship and emotional support)", "educating the adolescent (i.e., age-appropriate education and teaching method)", "parental responsibility (i.e., the type of education, the identification and acceptance of parental responsibilities, and supervision on the adolescent's behavior)", and "the promotion of parental knowledge about sexual and reproductive health (i.e., an authentic information source, appropriate time for receiving information, as well as educational measures and procedures to enhance parental knowledge)".

Conclusions: In general, the results of the current study can be effective and helpful for healthcare authorities to present intervention programs with the help of the other organizations in order to enhance the adolescent reproductive health.

Keywords: Empowerment, Reproductive health, Adolescent girls, Mothers, Qualitative study

Introduction

Adolescent reproductive health is now considered as one of the priorities of reproductive health all over the world considering the critical importance of adolescence (1, 2). Adolescents' access to sexual and reproductive health (SRH) service prevents many health problems (3).

Parents have an important role in establishing the sexual and reproductive behaviors of the adolescents (4) and should provide them with relevant information on this period for their life (5). Therefore, parents' perception of the risks that threaten the adolescents is an effective factor in parent-child interactions (6) and thus they should be encouraged to establish a good relationship with their adolescent from the very beginning (7). According to some studies, parents are regarded as the best source of information respecting sexual and reproductive issues for adolescents (8, 9).

Further, the most powerful predictor of the adolescents' awareness of reproductive health is the knowledge level of their mothers (10) and mothers are believed to transfer information to their daughters based on their knowledge

(11).

Parent-adolescent communication about sexual relationship issues has several advantages including delaying the sex, using condoms more frequently, as well as having more sexual independence and just one sexual partner (12). The literature suggests that teenagers have insufficient knowledge about SRH (13). Based on a report, parent-adolescent communication is only about some of the SRH issues which are mostly noncritical (14). Scant studies have comprehensively investigated the state of adolescent reproductive health in Iran and these studies are limited to subjects like "puberty in girls and their views on family planning" due to cultural biases (15).

The results of several relevant studies performed in Iran and other countries highlighted the necessity of educating and empowering families, particularly mothers in this respect (16-18). As a result, the present study aimed to explain the concept and dimensions of mother empowerment regarding the reproductive health of their adolescent girls.

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Materials and Methods

Study Design

The current research was a qualitative study and used conventional content analysis to analyze the obtained data.

Setting and Sample

Sampling started from October 2016 and continued until November 2017. The participants of the study included 26 mothers who had adolescent daughters within the age range of 11-19 years and lived in Khorram Abad, and 14 key informants including reproductive health specialists, gynecologists, midwives, psychologists, sociologists, school counselors, health educators, consultants from seminary schools, and adolescent girls. Purposive sampling was performed with a maximum variation of Mother's and girl's age, education level, the number of children, mother's job, family income, and location.

The inclusion criteria included mothers who had at least one adolescent girl aged 11-19 years old, lived in Khorram Abad, Iran with their respective adolescent, and had no recognized psychological or mental illness. Furthermore, the key informants had to have at least a two-year record of service in adolescents' affairs and be employed at the present time. All participants had to complete the consent form in order to participate in interview meetings and be able to and eager to express their feelings and views about the adolescents' health. The exclusion criterion was any excuse to continue the interview.

Data Collection

Data were collected using semi-structured interviews with open-ended questions so that the participants had a chance to describe their experiences about the respective subject matter (19). The interviews initiated with broad and general questions about empowering the mothers concerning the reproductive health of their adolescent girls including "what factors empower mothers in educating about reproductive health for their daughters?" and "how do mothers transfer information regarding reproductive health to their adolescent daughters?" This qualitative research was conducted in a natural and real setting. Interviews were conducted at the school counseling room with mothers and at the workplace with the key informants and digital audio recorders were used to record the interviews, each of which lasted 45-60 minutes.

Analysis

The systematic qualitative-conventional content analysis was utilized for data analysis (20,21) by MAXQDA10 software developed for qualitative data analysis. The analysis had eight steps including organizing the data, deciding on the unit of analysis, planning for code and category development, coding test in part of the text, coding the full text, achieving stability in coding, making

a conclusion about the coded data, and describing the methods and results. Immediately after the interview, it was transcribed by the author word by word, reviewed, and rechecked with the recorded audios in order to enhance the precision of the extracted data and provide a chance for the researcher to have more domination over the respective data. Then, the texts were read several times and the codes, subcategories, and categories deductively emerged through text reduction and compression processes based on the principles of qualitative content analysis.

Data Trustworthiness

Four criteria including credibility, transferability, dependability, and confirmability were employed in order to evaluate the trustworthiness of data based on Lincoln and Guba's criteria (22). The credibility of the findings was maintained through devoting adequate time to data collection, keeping prolonged engagement with the study subject and the data, member checking (for clarifying any ambiguities in the codes), and recruiting a maximum variation sample. Likewise, the interview texts with their extracted codes were given to three mothers to ensure that the findings were consistent with the mothers' experiences. Moreover, to evaluate dependability, an external supervisor was employed, the interviews were separately coded by two peer checkers who had previous experience of performing qualitative research in order to find any inconsistency in the coding process. As regards the confirmability, the researcher overlooked all thoughts and presumptions and documented all research phases including data collection and analysis, as well as precise development of variables so that an external auditor could investigate all procedures and the given codes. To this end, codes, categories, and findings of the full text of interviews were presented to two experts in qualitative research and they were asked to give their opinions about the results. Additionally, it was attempted to document all the research-related activities for enhancing the transferability of the findings. Eventually, three mothers who had the inclusion criteria while not participating in the study were asked to compare the results of the interviews with their own views.

Results

Twenty-six mothers with adolescent daughters participated in this study (Table 1). The necessity of empowerment of parents for promoting SRH was included in 4 themes and 11 categories (Table 2).

Appropriate Parent-Adolescent Interaction

Creating healthy parent-child relationships: Some participants referred to being a suitable model for the adolescents, having proper inter-parental behavior in the presence of adolescents, showing respect for the teenager's demands, having an intimate mother-daughter

Table 1. Demographic Characteristics of Participating Mothers

Characteristics		Number (%)
Mother's age	Equal and younger than 35	7 (26.92)
	Older than 35	19 (73.07)
Daughter's age	Equal and younger than 14	17 (58.62)
	Older than 14	12 (41.37)
Number of children	Fewer than 3	11 (42.30)
	3-5	13 (50)
	More than 5	2 (7.69)
Birth order	1	13 (44.82)
	2	11 (37.93)
	More than 2	5 (17.24)
Mother's education	Uneducated	2 (7.69)
	Middle school degree and lower	5 (19.23)
	High school	11 (42.30)
	University	8 (30.76)
Mother's job	Working	8 (30.76)
	Housewife	18 (69.23)
Spouse's education	Uneducated	1 (4)
	Middle school degree or lower	1 (4)
	High school	11 (44)
	University	12 (48)
Spouse's job	Unemployed	1 (4)
	Worker	3 (12)
	Employee	9 (36)
Residence	Self-employed	12 (48)
	City	18 (69.23)
	Village	8 (30.76)
Household income	Low	8 (30.76)
	Middle	15 (57.69)
	High	3 (11.53)

relationship, and feeling comfortable in communicating sexual issues to the adolescents as the necessities for the empowerment of the parents. One participant spoke of proper inter-parental behavior in the presence of the adolescents: *“As parents, my husband and I should know how to behave and deal with each other”* (a key informant, 39 years old, M.A in psychology, a school counselor).

A mother commented on close mother-daughter relationship: *“I think, at puberty, we have to deal with a girl and even a boy like a friend”* (a 40-year-old mother with a 13-year-old daughter, diploma, a housewife).

Another mother explained about easy communication with an adolescent on sexual issues: *“Such education is really good and it would be much better if mothers can have that kind of communication with their daughters so that their daughters can easily tell them everything”* (a 37-year-old mother with a 13-year-old daughter, undergraduate, a housewife).

Emotional support: Some participants considered respect for the adolescent's emotions, continuous companionship with the adolescent, and comprehensive support as emotional support. One of the mothers expressed her opinion in this respect: *“We provide whatever they need and do our best to support them emotionally and financially so that they don't wimp out of their friends”* (a 36-year-old

mother with a 12-year-old daughter, undergraduate, a housewife).

Adolescent Education

Age-based education: Most participants referred to education based on parental knowledge about the adolescent, gradual and age-based education about different aspects of sexual and reproductive issues for the adolescent. Such aspects including pregnancy-related teaching at the time of marriage, puberty-related education before puberty, teaching about menstruation and menarche before puberty, teaching about how to get pregnant in late adolescence and family planning after marriage, and sex education for young ages were considered as the necessities of parent empowerment. One mother expressed her viewpoint: *“They should be informed gradually and, as you mentioned, in a mother-daughter relationship, the mother has to gradually inform her daughter and explain whatever needed about the opposite gender to her daughter. I think this way works better”* (a 37-year-old mother with a 13-year-old daughter, undergraduate, a housewife).

Another participant commented in this respect: *“We have to teach them whenever necessary as much as we know and we should care not to do so earlier or later than its due time”* (a key informant, 53 years old, PhD student of Sociology, a teacher).

A mother commented on education for menstruation and menarche: *“When she was studying at grades 4 and 5, I occasionally told her that this happens and all girls experience it and you shouldn't be scared. Instead, you must get ready for it and this is a sign of your health that shouldn't make you upset”* (a 39-year-old mother with a 19-year-old daughter, bachelor degree, a teacher).

Teaching method: Some participants considered sexual and reproductive education indirectly and believed that maternal experience and the related books are regarded as a requirement for the empowerment of the parents. One mother indicated her opinion regarding education through maternal experience: *“It is good to transfer such information as our experience to our children and tell them that I have experienced these complications when I was pregnant or I did such works and suffered from such diseases, the doctor told me to do this and, the like”* (a 48-year-old mother with an 18-year-old daughter, bachelor degree, a housewife).

Parents' Responsibility

Type of education: Most participants declared that religious education for adolescents including taking Imams as their models, performing religious rites, and observing veil, Mahram (unmarriageable kin), and non-Mahram (marriageable kin) were among the requirements for the empowerment of parents. A mother commented in this respect: *“If we read just one verse or quotation for our children every day or a quotation by Fatimah Zahra (sa),*

Table 2. Theme, Categories, and Subcategories of Empowerment of Mothers About Female Adolescent' Sexual and Reproductive Health

Theme	Category	Subcategory
Appropriate parent-adolescent interaction	Creating healthy parent-child relationships	Being a suitable model for adolescents, inter-parental appropriate behavior in the presence of adolescents, respect for the demands of adolescents, and feeling comfortable with adolescents about sexual and reproductive health
	Emotional support	Respect for the adolescent's emotions, permanent companionship of mother with her teenager, and comprehensive supporting of the adolescent
Educating the adolescent	Age-based education	Gradual education about reproductive issues from the beginning of the age of maturity, education to a level of primary knowledge about reproductive issues, education based on parental understanding of the adolescent, education about pregnancy before marriage, education about puberty before puberty age, education about menstruation and menarche before puberty, teaching about how to get pregnant during late adolescence, teaching family planning after marriage, and teaching sexual issues during youth
	Teaching method	Education about pregnancy through observing a pregnant mother, teaching the physiology of gestation based on the school science book, and teaching sexual issues based on the related books and indirectly
Parents' responsibility	Type of education	Taking religious leaders as models, performing religious rites, observing veil, as well as Mahram (unmarriageable kin) and non-Mahram (marriageable kin)
	Recognition and acceptance of parental responsibilities	Establishing a safe family atmosphere, providing welfare and economic needs, and performing suitable planning for the adolescence
	Supervision on the adolescent's behavior	Monitoring the teenager's behavior with the opposite sex, and use of modern communication technologies, controlling her/his friendly relationships, and caring about the teenager's behavior in society
Reinforcement of sexual and reproductive knowledge of parents	An authentic source of information	Mass media, internet, and social networks, educational books, appropriate educational films, schools, seminary school, as well as the Quran Institutes and counseling and healthcare centers
	Appropriate time to receive information	Before marriage, before pregnancy, at a girl's birth, at her age of maturation, before puberty, or based on the adolescent's age group
	Teaching strategies	Providing educational packages on sexual and reproductive issues for mothers at schools, including sexual and reproductive issues in school textbooks, administering special programs in media for adolescent health, and holding courses for families
	Approaches to enhance parents' knowledge	Assigning a course for adolescent healthcare at health centers, employing teachers from seminary schools and the Quran institutes, and using drama and music

they gradually try to take Her Holiness as their model" (a 48-year-old mother with an 18-year-old daughter, bachelor degree, a housewife). In addition, one of the participants expressed: "To my daughter, if you reach maturity, you have to pray religious rites and avoid some haram works. You cannot meet non-mahram people with this clothing" (a 38-year-old key informant, level 2 of seminary school, a teacher and counselor at seminary school).

Recognition and acceptance of parental responsibilities: Some participants referred to creating a safe family atmosphere, as well as providing welfare and economic needs and suitable planning for adolescence as the requirements for parent empowerment. A mother asserted her view in this regard: "I feel that my child seeks for a safe family atmosphere" (a 38-year-old mother with an 11-year-old daughter, diploma, a housewife). Another participant commented: "We try to make every possible effort and do our best to afford their financial and emotional demands and express as much as affection and love they need" (a 36-year-old mother with a 12-year-old daughter, undergraduate, a housewife).

Supervision on the adolescent's behavior: Some participants highlighted monitoring the adolescent's

behavior in society, observing her behavior with the opposite gender and her relationship with her friends, along with the use of modern communication technology as the necessities for the empowerment of parents. A mother mentioned her viewpoint regarding monitoring the adolescent's behaviors: "Their relationships should be more controlled and monitored. I think this is the best help from their families" (a 37-year-old mother with a 13-year-old daughter, undergraduate, a housewife).

The participants believed that teenagers are significantly affected by their peers, thus knowing their peers is of great importance. One participant commented in this regard: "She can communicate with her known friends and she must know her friends well" (a key informant, 33 years old, Master's degree in interpretation (level 3), vice chancellor for research affairs at seminary school).

Reinforcement of Sexual and Reproductive Knowledge of the Parents

An authentic source of information: The majority of participants considered healthcare and counselling centers while some others referred to the mass media, internet, social networks, educational books and films, schools,

seminary school, and the Quran institutes as valid sources of information. A mother claimed that: *"The healthcare centers give more information and brochures to mothers"* (a 36-year-old mother with a 12-year-old daughter, undergraduate, a housewife).

One participant mentioned that: *"Most of the mothers passed university studies and know how to search on the internet to easily find the sources and acquire information at least as much as they need"* (a key informant, 46 years old, PhD in Reproductive Health, a faculty member).

The appropriate time to receive information: Most participants considered different time intervals suitable for reception of sexual and reproductive information including before marriage, before pregnancy, at a girl's birth or puberty age, before puberty, and based on the adolescent's age group.

A mother commented in this respect: *"I think when she gets married and as soon as....before giving birth to a baby, she should seek for education"* (a 37-year-old mother with a 13-year-old daughter, diploma, a housewife).

Further, another mother mentioned that: *"For example, my child is studying at grade 1 of elementary school and she can be educated in such fields from grade 1"* (a 46-year-old mother with an 11-year-old daughter, associate degree, a housewife).

Teaching strategies: Some participants referred the teaching strategies like providing educational packages, including sexual and reproductive information in school textbooks, and showing programs specific to adolescent health in the media and educational courses for families as the requirements for the empowerment of families. In this respect, one participant declared that: *"A series of guidebooks or brief and useful brochures should be provided for mothers and this is possible in schools"* (a key informant, 50 years old, a gynecologist). Another participant expressed her opinion regarding the inclusion of sexual and reproductive information in the textbooks: *"Surely, information about what pregnancy is and when one is mentally, psychologically, and physically prepared to get pregnant can be included in the textbooks to help healthy teen girls"* (a key informant, 51 years old, PhD in Psychology, a faculty member).

Furthermore, a participant referred to the media contribution in parental education: *"It is required that we enrich family health programs, particularly for housewives who have the opportunity to watch TV programs in order to obtain the required information through the Broadcasting Organization"* (a key informant, 51 years old, PhD in Psychology, a faculty member).

Approaches to enhance parents' knowledge: Several participants pointed to assigning a unit for adolescent healthcare affairs, employing instructors from seminary schools and the Quran Institutes, and using drama and music for training. One of the participants commented that: *"Considering this issue from this standpoint can gradually provide a background in which we can assign*

an office in clinics and healthcare centers in different neighborhoods" (a key informant, 51 years old, PhD in Psychology, a faculty member).

Finally, one participant suggested the use of drama and music for more effective education: *"If we offer our education this way, our adolescents, as well as their families will surely like it. Some kind of background music is helpful as well"* (a key informant, 53 years old, PhD student of Sociology, a teacher).

The concept of empowerment of mothers about female adolescents' reproductive health is summarized in Figure 1.

Discussion

The current research sought to empower parents regarding improving adolescent reproductive health and the findings affected by the participants' cultural and religious beliefs were presented into four themes including "appropriate family-adolescent interaction", "educating the adolescent", "parents' responsibility", and "enhancement of sexual and reproductive knowledge of parents".

Empowerment for the promotion of health is considered as a dynamic and inclusive process through which people have more control over the decisions and actions that may affect their health (9). In the present study, concerning appropriate parent-adolescent interaction, the participating mothers referred to being a suitable model for the teenagers, proper inter-parental behavior in the presence of their adolescents, respect for the demands of adolescents, an intimate mother-daughter relationship, and straight communication with the teenager concerning sexual and reproductive issues. According to the reports of a study, close parent-child relationship increased self-efficiency, the use of a condom, and protected sex ($P < 0.01$). In addition, a great deal of sexual discussion between parents and children was found to lead to less risky sexual behaviors, continuous use of condoms, and more interest in using condoms in the future (23). Based on the results of a study, good perception and parent-adolescent relationship are regarded as essential requirements of parent-child communication concerning reproductive health issues (24). Further, improving a suitable parent-adolescent relationship and eliminating the barriers like shyness while expressing the related matters or lowering parental indifference toward the consequences of high-risk behaviors must be taken into account in this regard. To this end, parents should be educated about how to take suitable and friendly methods to attract their daughters' trust and friendship, and parents should talk with their adolescents about about reproductive health during puberty to prevent negative respective consequences. Similarly, parents must be aware that the adolescents' knowledge should not be restricted to the mechanisms of puberty, menstruation and natural behaviors but huge and ponderable investment is necessary for a deep understanding of physical changes and their association

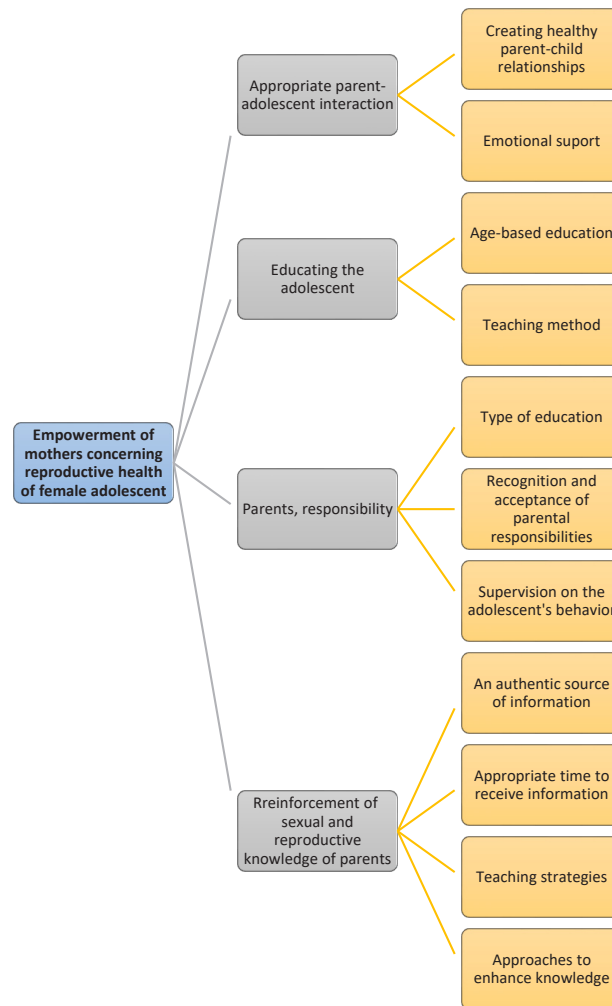


Figure 1. The Concept of Empowerment of Mothers About Female Adolescents' Reproductive Health.

with sexual relationship, reproduction, contraceptive methods, and marriage health with respect to cultural and social differences among adolescents (17).

Based on participants' attitudes, several issues were highlighted respecting the empowerment of parents in educating their adolescents such as gradual teaching of reproductive issues from the beginning of the age of puberty, teaching to the level of early understanding of reproductive issues, education with regard to the parents' understanding of their adolescent, pregnancy-related education at the time of marriage, puberty-related education before puberty, teaching menstruation and menarche before puberty, teaching how to get pregnant in late adolescence and family planning after marriage, and educating sexual issues at young age. Wilson et al found that good communication with the adolescent facilitated sexual discussion and communication with the adolescent so that some participants preferred to talk about reproductive and sexual anatomy when their children were very young and their conversations gradually evolved into a wide range of relevant discussions. Moreover, based on the findings of another study, parents considered educational

textbooks effective in teaching sexual and reproductive knowledge (25). According to Jalali Ariya et al, 55% of the parents considered marriage time suitable for teaching family planning (5) while, in another study, the majority of mothers emphasized puberty age and adolescence as a suitable time for teaching sexual issues. However, some mothers believed that elementary education of this subject must begin from childhood in order to provide the necessary background for mother-child interactions in the next stages of life (26). Based on the results of the current research, taking responsibilities in the areas like focusing on the type of education, identifying and accepting parental duties, and monitoring the teenager's behaviors were indicated as significant requirements for parent empowerment. As regards the type of education, mothers referred to taking Imams as their role models, performing religious rites, observing the veil, as well as Mahram and non-Mahram. Additionally, religious beliefs and teachings were introduced as barriers and factors which affected sexual decisions of an adolescent. Those with a religious lifestyle are believed to resist against their instinctive impulses and desires and less sexual aberrations, sexual

abuse, and crimes they commit (27).

In terms of identification and acceptance of parental duties, the participants pointed to the identification and acceptance of parental responsibilities. Based on the results of a study, family responsibilities for the provision of facilities and amenities for the teenager, along with the awareness of psychological, physical, and sexual issues of the adolescents protect and promote their health (28).

In terms of monitoring the adolescent's behavior, the mothers and key informants recommended monitoring the adolescent's behavior with the opposite gender, her use of modern communication technology, relationship with her friends, and behavior in society. Shariati et al concluded that mothers contribute to their adolescent girls' reproductive health through providing information and education about puberty, pregnancy, and childbirth for their daughters, applying supporting resources to provide education, along with emotional and psychological support, monitoring their relationships, controlling their sexual desire in puberty, and finally, establishing a close relationship with their daughters (29).

Based on the results of this study, enhancing sexual and reproductive knowledge of parents concerning suitable times to receive the relevant information, as well as teaching strategies and procedures to heighten parental knowledge is taken into account as another requirement for the empowerment of parents. In addition, providing services for at-risk groups is one of the main parts of planning for health. Therefore, appropriate educational coverage for adolescents is particularly crucial in this respect. It is worth mentioning that challenges and obstacles against providing reproductive health services for the adolescents are very different from those of the adults and thus specialized methods should be employed such as physical characteristics of the service providing center, as well as the staff and service providers and the qualities of processes and implementation affairs (30). Similarly, Shahhosseini et al suggested public participation in educating the adolescents including the role of mass media and civil entities like schools and healthcare centers. Cultural features specific to any society make the effectiveness of mass media different. Accordingly, appropriate education through mass media and, particularly by the broadcasting organization with its public coverage in rural and urban areas, provides a suitable environment for clarifying different aspects of the subject matter of education and a welcome opportunity for developing and resolving its ambiguities in the public minds (31). Therefore, designing, implementing, and evaluating reproductive health education are required to find the best teaching approach in this regard using convenient educational facilities, active teaching approaches, and based on life skills of the parents (9).

Considering the experiences of a limited number of mothers was among the limitations of this study and thus performing further comprehensive studies are necessary

given the cultural difference in different areas of Iran. Another problem was the sensitivity of the Education Department to the subject of reproductive health so that the researcher spent a great deal of time to explain the subject and receive the necessary permissions.

Conclusions

According to the results of the current study, the concept of empowerment of mothers regarding reproductive health of their adolescent girls includes the need for suitable family-adolescent interaction to create healthy parent-child relationships and emotional support for the adolescents. Similarly, parents should be empowered concerning suitable age-based education for the adolescent and the teaching method. In addition, they should be empowered to take responsibility for educating, identifying, and accepting their parental duties and monitor the adolescent's behavior. Therefore, it is necessary to enhance SRH knowledge of parents regarding the application of authentic sources of information, a suitable time to receive this information, along with educational strategies and procedures to promote parental knowledge. Accordingly, the following issues are considered highly important in this respect:

- Promoting the performance of mass media and schools;
- Providing support (by health authorities) to train specialists in educating the parents;
- Establishing counselling clinics for adolescents;
- Dedicating some wards in public healthcare centers to adolescents;
- Providing support (by religious leaders) and promoting cooperation between the Ministry of Health and the Ministry of Education for including reproductive health within school curricula.

Conflict of Interests

Authors have no conflict of interests.

Ethical Issues

This research was verified by the Ethics Committee of Nursing and Midwifery School of Shahid Beheshti University of Medical Sciences under the code of ethics R.SBMU.PHNM.1394.283 on 19.1.2016 and written informed consent was previously obtained from all participants for conducting the interviews and audio recording the data.

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