

Necessity of Providing Sexual and Reproductive Health Services to Adolescents and Young People in Iran: A Narrative Review

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Background: Youths and adolescents are considered as valuable assets of any society. The preservation and promotion of health in this population is an issue of significant importance from the social and economic dimensions. Globalization has resulted in the emergence of several health risks for this age set. Sexual curiosity and sexual experiences are some of these dangers, which can cause irreparable damages if neglected. Regarding this, the present narrative review was conducted to identify the guidelines from different parts of the world for the preservation and promotion of sexual and reproductive health among the Iranian adolescents and youths. The integration of these strategies can provide appropriate solutions conforming to the Iranian culture.

Methods: This narrative review was conducted on the articles and sources published within 1985-2015. The search was performed using the valid international databases, including Pubmed, Google Scholar, Google, WHO, ProQuest, and the Persian databases, such as Iranmedex and SID. In addition, we performed library research to obtain the papers investigating the issue of interest. The keywords used during the searching process entailed: "Reproduction Health", "Youth", "Adolescents", and "Sexual Health". In this review, out of 85 evaluated sources, 53 articles, books, thesis, and websites were selected.

Results: As the reviewed studies indicated, the lack of knowledge, an unclear horizon of the future, and inaccessibility to reproductive health services threaten the health of the youths and adolescents. Therefore, the provision of sex education by parents, schools, or peers can have a significant impact on the promotion of sexual health in this population. Moreover, screening and identifying the adolescents and youths at risk and educating the necessary skills to this age set can prevent the occurrence of high-risk sexual behaviors. Similar to other countries but with a lower prevalence rate, there are some problems in sexual and reproductive health of the youths and adolescents in Iran. Therefore, it is recommended to teach the sexual health promotion techniques to this population according to their religion and culture.

Keywords: Adolescents, Reproductive health, Sexual health, Youth, Teenager

Introduction

Adolescence is one of the most important periods of life, which entails a transition from childhood to adulthood. This transitional stage is mostly associated with significant physical, psychological, and social changes, significantly affecting the social and sexual performance of the individuals during their adulthood (1). It is generally believed that adolescents are the healthiest age group in any society, who rarely refer to physicians. However, the primary care system directs inadequate attention to the health-related needs of this population (2).

However, the recent studies investigating this age set have reported that the current generation has a threatened health (3). They indicated that the consequences of the risky behaviors or unhealthy lifestyles of this generation would arise in the future (4). In this regard, the World Health Organization has sought for a solution to eliminate the challenges in this population by supporting the expansion and adoption of plans and strategies based on their sexual need, reproductive health, and perspectives (5).

According to the literature, the main health risks for the adolescents and youths include unfavorable mental health, suicide, unawareness about sexual and reproductive health [e.g., increased sexually transmitted diseases (STDs) and unwanted pregnancies], alcohol consumption, drug abuse, tobacco use, and alarming increase of HIV/AIDS. These factors mainly threaten the age group of 15-24 years. The promotion of the health among the youths requires the direction of attention to the enhancement of knowledge, education of life skills, and creation of safe supportive environments (3). This will be accomplished through the detecting the barriers to the implementation of the plans, followed by designing practical solutions to achieve the respective goals according to the cultural and religious conditions of each country. The interaction between the impacts of globalization on the youth attitudes, behaviors, and opportunities is not consistent with the political, social, economic, and cultural contexts of the youths. Therefore, out of the social norms, religious values, cultural traditions, and parental authority, the

adolescents and youths receive those concepts that compete with their independence and principles of individual freedom (6).

In our society, the majority of the adolescents, have inadequate knowledge about the physical and mental changes occurring during puberty due to many cultural rather than religious reasons. This age group might even face serious physical and mental problems due to obtaining information from unsolicited and unreliable sources (7, 8). Reproductive health is an essential part of general health in each individual, and one of the most important its topics is sexual health including early pregnancy and STDs (9). With this background in mind, the present review aimed to evaluate the conditions of the mentioned services provision in various countries with regard to different cultures and needs of the youths and adolescents of each society. This may help achieve a practical solution for the establishment of such services in Iran.

Methods

This narrative review was conducted on the articles and sources published within 1985-2015. The search was performed using the valid international databases, including Pubmed, Google Scholar, Google, WHO, ProQuest, and the Persian databases, such as Iranmedex and SID. In addition, we performed library research to obtain the papers investigating the issue of interest. The keywords used during the searching process entailed "Reproduction Health", "Youth", "Adolescents", "Teenagers" and "Sexual Health". In this review, out of 85 evaluated sources, 53 articles, books, thesis, and websites were selected. These sources covered the issues related to the provision of reproductive health services, family planning, and STDs for the youths and adolescents in various societies. In these sources, the condition of reproductive health services for the youths and adolescents and various solutions in different societies were evaluated. The results were presented by focusing on the problems and barriers to the provision of reproductive services for the Iranian youths and adolescents using thematic categorization method.

Results

Maternal age at pregnancy

Despite the gradual decrease in early marriage, it has been estimated that in the next 10 years, over 100 million adolescent females will marry before the age of 18 years. The married young women often have inadequate knowledge about safe sexual relations, STDs, or HIV/AIDS. In addition, the majority of these women get pregnant, 90% of whom are very young and live in the developing countries (10).

Although pregnancy, especially in late adolescence, might be a positive experience or an appropriate time for the females who have good physical health and want kids (11). However, these individuals will face with a wide range of social outcomes and health risks (12). In this regard, adolescent pregnancy is one of the most important issues, which can be used to assess the quality of youth development in a society (13).

In many countries, pregnancy might occur in the very young and single adolescents. In the low- and middle-income countries, about 10% of the females deliver a baby until the age of 16 years. Accordingly, Sub-Saharan Africa as well as the Southeast, South, and Central Asia have the highest rate of early pregnancy. A high rate of the single adolescent pregnancies is unwanted and probably most of them will lead to induced abortion (14). This results in almost two million unsafe abortions annually performed throughout the world, which is one of the causes of maternal mortality (15).

In the Islamic countries, such as Indonesia, extramarital pregnancy is considered an unacceptable action, and abortion is restricted. In these countries, when a single girl gets pregnant, she has two options; either marriage to legalize the birth of her child or abortion. Those who get married are faced with health risks and socioeconomic problems since the pregnancy of an adolescent without attention to marital status can be dangerous for mother and fetus. Additionally, a young pregnant girl might be deprived of education, occupation, and personal development. School rules in Indonesia usually do not allow a pregnant girl to continue her education. On

the other hand, those selecting abortion are also faced with serious health risks.

Since abortion is an illegal procedure in Indonesia, it is usually performed by unskilled people and in unsafe conditions. Accordingly, it has been estimated that half of the deceases related to pregnancy in this country are caused by complications of unsafe abortions. In a study conducted by the Health Research Center of Indonesia (2000), it was reported that out of the two million abortions annually occurring in Indonesia, 30% of the cases are related to the adolescents (16).

Maternal, neonatal, and social complications of pregnancy at younger ages

The female adolescents, who are sexually active, are at the highest risk of STDs and unwanted pregnancies. Additionally, all of the various physiological, behavioral, socioeconomic and cultural factors contribute to their vulnerability of this population (17). There are many health problems associated with pregnancy complications in adolescents. These problems include anemia, malaria, AIDS, STDs, postpartum hemorrhage, and mental disorders (e.g., depression). In total, 65% of the women with obstetric fistula are adolescent, which leads to serious physical and social consequences in their lives (18).

Young mothers aged ≤ 19 years encounter a higher possibility of leaving school and remaining single, compared to those delaying their pregnancy until the age of 20-21 years (19). Moreover, neonatal mortality in the first month of birth is 50-100% more common in the adolescent mothers, compared to the older mothers. The preterm labor, low birth weight, and asphyxia are more prevalent among the neonates of adolescent mothers as compared to their older counterparts. These conditions increase the possibility of neonatal health problems and mortality in the future (16, 20).

In the USA, the children of adolescent mothers have lower grades in school and improper physical health and are more abused and neglected. In addition, daughters of adolescent mothers are also more likely to be young mothers in the future (19). The prevention of adolescents pregnancy in the USA has led to the annual saving of nine billion dollars (21).

Some effective factors in the prevalence of adolescent pregnancy

1. Non-use of contraceptives

In a study conducted in Belgrade, Serbia, the reasons for the lack of contraceptive usage on the first intercourse were reported to be the lack of knowledge about pregnancy, trust in the sex partner, unpredictability of the first sexual intercourse, and negative attitude toward condom use (17). In china, the most important cause of pregnancy in adolescents was revealed a lack of understanding about the risk of getting pregnant (15).

2. Inadequate knowledge about reproductive health

In a study carried out in Medan, Indonesia, it was demonstrated that many of the males believed that a woman will not get pregnant by one sexual activity. As a result, some of the young men preferred to have casual sex or have sex with a fixed partner just once a month to prevent pregnancy (22). The Belgradian youths had no knowledge about the fact that the lack of condom use during the intercourse with a new partner put the person at the risk of STDs. On the other hand, they reported that the young females also regarded the modern contraceptives to be harmful, and oral pills caused the most psychological burden and fear in them (17).

3. Education level and social class of the adolescents

David Paton, professor of economics, believes that social class is an important factor in determining the expectations of a young individual. He asserted that the cost of having a baby for a young woman from a low social class is low. However, this takes a much higher cost for a middle-class girl since pregnancy means the impossibility to continue her education and obtain a job (13). In a study conducted on the females within the age range of 12-19 years in South Nyanza, Kenya, the education level of the female participants and their mothers as well as better socioeconomic status were associated with late initiation of sexual activity, marriage, and pregnancy (23).

4. Early sexual activity in adolescents

The majority of the adolescents in many developing and developed countries initiate their sexual activity before the age of 18

years. Meanwhile, according to the convention on the rights of the child, a person with an age of < 18 years is considered a child. The possibility of forced and unwanted initiation of sexual activity is higher in the females, compared to that in the males (6).

Precedents of adolescents pregnancy

In studies, a spectrum of precedent factors in adolescent pregnancy has been identified. Among these, the strongest factors were social disadvantages, inequality and social deprivation (24, 25).

1. Mental health

The daughters of teenage mothers are at the risk of being an adolescent mother in the future (26), which is resulted from the intergenerational transfer of unfavorable conditions and aggressive behavior in childhood (27, 28). Aggressive and anti-social behaviors, impaired family relationships, family collapse, and single-parent family are closely associated with high rate of pregnancy in adolescents (25, 27).

An Australian study showed that the combination of two mental health problems, namely criminal and aggressive behaviors, without attention to the age of identifying these behaviors were significantly associated with pregnancy in adolescents (29). Other studies have demonstrated that the adolescents showing greater amount of criminal and aggressive behaviors are more involved in high-risk sexual activities, which lead to pregnancy (30, 31). Therefore, it is of significant importance to prevent and control these two behaviors before getting fixed within the individuals. The evidence has revealed that paying attention to these behaviors at the beginning of the teenage evolutionary path might decrease pregnancy in adolescents (29).

2. School Hate

School hate, unfavorable economic conditions, and low expectations for the future are the three major causes of adolescents pregnancy. Consequently, new strategies must focus on the ways to facilitate this population to enjoy their time in school, improve their expectations for the future, and have necessary social supports and skills for

facing with challenges during adolescence (31).

3. Religious fanaticism

In the USA, religious fanaticism is an accurate predictor of the high prevalence of adolescents pregnancy, which is probably caused by the infrequent use of contraceptives (33). Dadj et al. compared the American male students with their Dutch counterparts and concluded that the American participants had inadequate contraceptive use and a higher rate of unwanted pregnancy compared to their Dutch counterparts. This difference is justified by religiosity and sex education (34).

In the USA, education mainly emphasizes on the avoidance of intercourse due to religious beliefs; therefore, the contraception methods are less frequently taught (7, 35). Meanwhile, contraception education can have greater impact on reduced adolescent pregnancy, compared to emphasis on "abstinence". Consequently, the encouragement of sexual abstinence and not using contraceptives in the adolescents can increase the pregnancy rate in this population (35).

Religious teachings cannot always keep the youths away from committing sins. Accordingly, these individuals will face with more serious problems if they are not provided with adequate health education. Santli et al. concluded that the wide use of contraceptives accounted for 86% reduction in adolescents pregnancy within 1995-2002 (36).

Methods of promoting sexual and reproductive health among adolescents and youths

1. Provision of information in form of comprehensive sex education

Sex and reproductive health education can provide the adolescents with applicable knowledge and skills required for the reduction of their vulnerability to reproductive health problems, such as HIV infection and pregnancy. The assessment of studies and programs has shown that training the adolescents on the issues related to reproductive health and HIV pandemic is very cost-effective (3, 14, 37). Moreover sex education in schools has been revealed to be extremely effective (13, 38, 39). According to the Ottawa Charter, health promotion is

defined as the empowerment of people in increasing their control over their health, which also includes sexual and reproductive health (37). Several studies have indicated that the majority of the parents and adolescents prefer to receive sexual and reproductive health education at school by associated experts (3, 13, 38, 40).

Young people are sensitive and vulnerable to their social environment, which directly or indirectly affects their knowledge, attitude, and behavior toward sexual tendencies and reproduction (3). According to the results of a study conducted in Serbia, the main sources of adolescents' knowledge about sexuality, contraceptives, and STDs were their peers, parents, mass media, school, sex partner, and healthcare providers, respectively (17).

Studies have shown that the Dutch youths had adequate knowledge about sexual issues, including reproduction, contraceptives, and STDs. Furthermore, they reported to have a positive attitude toward their sexual tendencies. In Europe, the Dutch youths have the lowest rate of teenage pregnancy and abortion and highest rate of contraceptive use in the world. Their solutions are described in the following subsections:

a. Direct and transparent education by parents

Adolescents and youths are more comfortable to discuss sexual issues and their questions if there is an open parent-child communication in their families (3). It is unthinkable for the Dutch parents to neglect sex education for their children. The author of books related to sex education used in the Dutch schools states that in Netherlands, the sexual issues are regarded as a natural part of daily life, such as shopping or football; however, this is not the case in England (41).

b. High rate of contraceptive use in the first sexual intercourse

In Netherlands, 85% of the individuals use contraceptives in their first sexual intercourse, 70% and 24% of whom use condoms and pills, respectively. The use of birth control pills is a very common practice in Netherlands, which is one of the main reasons for the very low number of adolescent pregnancies. In addition to the distribution of free birth control pills, the emergency contraceptives are easily available for all

people in case of unprotected intercourse. Moreover, in case of pregnancy, a person can refer to one of the abortion clinics of Netherlands to abort legally and freely. Condom use is highly prevalent in this country, and it is easily accessible for all individuals. It should be noted that condom purchase by the youths is completely an acceptable issue in Netherlands. However, one of the problems of Netherlands in this regard is the Christian groups, who prohibit sex before marriage. As a result, they believe that sex education is not necessary for children since they will not have sexual intercourse during adolescence.

c. Sex education programs in schools

In Netherlands, sex education is offered in schools for the students aged 12-15 years as a part of their biology curriculum. Moreover, a course called "Care" has also been introduced since 1993. In biology, the focus is on anatomy, reproduction, and sexual functions, such as pleasure. On the other hand, in "Care" course, the emphasis is on puberty, health, as well as emotions. Meanwhile, these programs have a high rate of flexibility depending on the teacher's desire (3).

d. Education of adolescents through media, especially journals and television

In Netherlands, there have been programs on television targeting the improvement of healthy sexual relations for many years. These programs are similar to the life of youths and some of them are completely humorous. In addition, there are some talk shows, in which some young individuals discuss these issues. There are also many journals for youths, all of which allocate 1-2 pages to the questions of young readers mainly related to sexual issues. These questions are presented either anonymously or with a fake name (14).

2. Complete access to sex and reproductive health services

This is interpreted as providing the adolescents and youth with proper facilities for the prevention of unwanted pregnancies (e.g., condoms and other contraceptives) (13, 14), preventive interventions, treatment, and care of STDs, such as HIV (14).

However, it should be noted that the information or services should be provided together to be helpful since they are complementary. In this regard, in case of having no knowledge about the places for purchasing the contraceptives or in case of banning the purchase of such materials, knowing the fact that condom and birth control pills will prevent HIV and pregnancy, respectively, would be pointless (6).

The access of adolescent mothers to information about birth control methods is of paramount importance to prevent next pregnancies (14). In Indonesia and Vietnam, it is illegal to provide the single clients with family planning services. In this country, selling condoms to single individuals is also illegal since this act is considered as "promoting a social evil" from the government's perspective (6).

3. Facilitating parent-child conversation about sexual issues

The parents can be empowered by being helped in supporting their children in their growth process and accepting the responsibility of their child health status using reliable information and a close relationship (3, 13).

4. Multi-disciplinary activities for affecting the behaviors of adolescents and youths using peer teaching

Based on the studies, one of the most effective education methods for adolescents and youths is peer teaching. Therefore, planning services might provide the most effective method for dealing with such issues as unwanted pregnancy and STDs in adolescents through the joint cooperation of the youths (3).

5. Happiness, school enjoyment, and positive expectations for the future

The assessment of several qualitative studies have shown that happiness, school enjoyment, and positive expectations for the future can be effective in delaying adolescent pregnancy and early acceptance of parental responsibilities (32).

6. Delaying sexual activity

In the USA, there is controversy over educating the adolescents about sexual issues and contraceptive use. Some of the educational programs only rely on “abstinence” in this estate. In this regard, the education of birth control methods is regarded unnecessary since according to the proponents of this method, having sexual relations is not ethical for a single individual. Furthermore, they believe that the government must invest in “abstinence” programs instead of spending money on comprehensive sex education programs (35).

The American government (2010) cut the budget for abstinence programs and shifted the investment to education of birth control methods, including prevention along with correct and age-appropriate medical knowledge. This was due to the fact that increased pregnancy among the American adolescents in 2006 occurred mainly when the government increased its investment in the abstinence programs (42).

Some studies have indicated that the abstinence policy had no impact on reduced sexual relations and pregnancy in adolescents. They recommended that it is more appropriate to promote the approach of “delaying sex” (13, 42). An adolescent pregnancy research team in Kensington and Chelsea, London has demonstrated that it seems better to teach sexual health to women by other females. According to these researchers, the key to success is the early onset of training and focusing on communications (13).

Discussion

The data provided in this article were retrieved from many studies conducted in various Islamic and non-Islamic countries. However, given the cultural and religious conditions of Iran, it is necessary to develop socially-based programs according to the current needs of adolescents and youths in this country and the scientific standards of the world. Regarding this, in this section, we first addressed the current situation of Iran, and then continued with the giving suggestions on providing reproductive health services.

Iran’s conditions in terms of sexual health services

Adolescents and young people constitute a major proportion of Iran’s population. According to the statistics, in 2011, about 39% of the total population of Iran was within the age range of 10-24 years (43). Similar to other Asian countries, the youths living in Iran experience rapid social, cultural, and demographic changes. In the current era of widespread and universal communications, the young generation is exposed to rapid changes of values and norms at a wider level than the previous generations. A part of the attitudinal and behavioral changes of the youths covers the area of sexual and reproductive health. Along with increasing urbanization and explosion of information, these important changes have exposed the youths and adolescents to reproductive health-related risks.

Despite the performed small- and large-scale studies, dealing with sensitive issues, such as attitude toward sex, prevalence of high-risk sexual behaviors, prevalence of STDs, and legitimate and illegitimate youth pregnancies have been avoided due to cultural sensitivities in this regard. Therefore, the cultural sensitivities in our society can be an effective factor in the poor knowledge of the youths about sexual and reproductive health (44). Meanwhile, in a study carried out by Baheiraei et al. (2014), it was demonstrated that the sexual issue was the most common health subject that the adolescents were eager to obtain some information about (45).

Some studies conducted in Iran have revealed that the majority of the parents, teachers, and clergymen believe that sex education must be provided for the adolescents and youths at the time of marriage (7). Based on the Holy Quran, in the religion of Islam, any type of extramarital sex is forbidden (46). However, the disobedience of religious teachings and instructions has been always common in all societies. A study conducted on the male adolescents within the age range of 15-18 years in Tehran, Iran, demonstrated that a significant minority of these individuals had sexual activities.

In the mentioned study, 18% of the single male subjects within the age range of 15-16

years and 37% of the single males within 17-18 years of age declared to have "sexual contacts" with girls or women. Among these subjects, 67% and 75% of the individuals aged 15-16 and 17-18 years, respectively, stated that they had more than one sex partner. Moreover, the majority of the participants had permissive attitudes toward accepting pre-marriage sexual relations (44).

Although in some studies conducted in Iran, the majority of the parents and teachers agreed with educating the children about the STDs and reproductive biology. Nevertheless, there was no consensus over the proper age of teaching among these studies (47, 48). This might have been an inhibitory factor for national decision-makings regarding the implementation of reproductive health education programs.

To date, no systematic program has been implemented in Iran to provide sex and reproductive health education for society members. However, some schools present brief and incomplete information in this regard with the aid of their health instructors. The majority of the studies have demonstrated that the adolescents and youths mainly obtain information about reproductive health from invalid sources, such as friends and peers (49).

In a study performed by Salmeh et al. in Sari, Iran, it was reported that 82.5% of the mothers were eager to be the first source of information for their children (40, 47). In another study, the main sources of health information for the female adolescents were respectively mothers and friends of the same-gender; however, this order was inverse for the male adolescents (45). It should be noted that in most of the cases, the information delivered by parents and friends are not complete, or adolescents might not tend to discuss these issues with their parents.

According to several studies, it is essential to recruit experts for reproductive health education in schools (7, 39). In a study carried out in Gorgan, Iran, the parents assumed that midwives were the best group for delivering sex education and answering the students' questions about sexual and health problems (48). Moreover, the reproductive health services are not restricted to adolescents, and

the youths need reproductive health education and services. Iran might have fewer extramarital sexual relations or pregnancies among the youths and adolescents, compared to other countries owing to its religious and cultural contexts. However, it should be noted that other issues, such as the importance of marriage, marriage at young age, and temporary marriage, could cause other problems. Sometimes, a girl agrees to have sex with their favourite boy and even get pregnant to force him to marry her. This method is also used by those young women who accept temporary marriage. It means that despite their agreement at the beginning of marriage on having no child, they get pregnant with the hope of attracting the sympathy of their spouses, which might result in permanent marriage. Nevertheless, in the majority of the cases, the plan of these women fails, and their sex partner leaves them. Therefore, they have no other choice but to abort illegally, leave their child, or send her/him to the welfare office.

However, as mentioned in other studies conducted in other parts of the world, pregnancy is not the only problem, and other issues, including STDs and AIDS/HIV, are of significant importance. Since the men who have sex with these women and girls may have multiple sexual partners, the women who have a temporary marriage should be treated like the females with multiple partners as well. Although these women do not have some sex partners at the same time, they might temporarily marry to another person after the end of their marriage. Therefore, if they are not provided with health education, they could be regarded as a significant factor for the prevalence of STDs (45, 50). In a study performed on the female students in Tehran, 10% of the single participants reported to have sexual intercourse with their boyfriends, and 23% of them reported to experience other types of sexual contacts (51). As a result, it is necessary for our adolescents and youths to have complete knowledge about the transmission routes of HIV/AIDS and STDs. Consequently, some centers should be provided for this generation to deliver the necessary services for sex related problems.

A study (2006) points out that there are seven centers that provide reproductive health services to adolescents and youth in Iran (four, two, one, one, and one centers in Tehran, Semnan, Bam, Chabahar, and Fasa, respectively (52). In line with the present study, the mentioned study confirmed the need for such centers all over the country.

Conclusion

As this study indicated, to promote sexual and reproductive health in adolescents and youths, the six items explained in this study must be performed in Iran just like the other countries. In this regard, the individuals should be provided with lifestyle skills training in order to eliminate the mental backgrounds leading to risky behaviors. In a study, it was demonstrated that anxiety control education could increase the

adolescents' satisfaction with life (53). The creation of joy, hope, and life satisfaction can protect the youths from many dangers.

Similar to other countries, education in Iran must be provided with an emphasis on the religious prohibition of premarital sexual relations with scientific logics. However, as written in the holy Quran while addressing the holy prophet Mohammad, "it is not like you can guide whoever you want. Nevertheless, God guides whom he will" (46), we are no exception in this regard. Therefore, it is necessary to educate this population on STDs and contraceptives, and establish centers to provide the associated services.

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