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Sexual Health Education Resources, Based on Ideas and Experiences of Students of Two Major Universities in Zahedan, Iran

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ABSTRACT

Background: To determine the most usual resources that adolescents and teenagers are using to learn about sexual issues. A cross-sectional exploratory study implemented in June 2015 in Zahedan, the capital city of Sistan-va-Baluchestan Province, located in the southeast of Iran.

Methods: Using convenient sampling method, from among student of two large universities in Zahedan, 134 students 18 to 22 years old, accepted invitation for filling a self-administered anonymized questionnaire containing, 8 semi-closed questions about sexual issues.

Results: 44.9% of women and 41.6% of men mentioned one of their friends as their tutors. While 42.0% of women mentioned their mothers as one of their tutors, only 18.8% of them believed that more than 50% of their sexual knowledge came from their mothers. 23.1% of male participants and 36.2% of female ones alleged to know personally people of their own ages who had been subjected to sexual abuse or harassment earlier in their life.

Conclusion: In Iran, educating sexual issues to adolescents is badly in need of organization and management. While the rule of a committed extra-family tutor (e.g. an officially appointed school teacher) might not be considered a solution, parents have to be prompted for filling the gap.

1. Introduction

In 1975, a WHO expert group described sexual health as "the integration of the somatic, emotional, intellectual and social aspects of sexual wellbeing in ways that are positively enriching and that enhance personality, communication and love" [1, 2]. It went further by stating that "fundamental to this concept are the right to sexual information and the right to pleasure" [2, 3].

Adolescents, defined by WHO as persons between 10 and 19 years of age, make up about 20% of the world's population, of whom 85% live in developing countries [4, 5]. The past three decades have seen dramatic changes in the understanding of human sexuality and sexual behavior. The pandemic of human immunodeficiency virus (HIV) has played a major role in this regard, but it is not the only factor [2].

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Sexually transmitted infections (STIs) and HIV infection have never had any better vaccine than teaching and education [6, 7]. More than one million sexually transmitted infections (STIs) are acquired every day worldwide [8]. Among them, almost half of all new HIV infections among individuals 15 years and older occur in the age range 15 to 24 [9]. In such a situation, biomedical surveillance and especially behavioral data can provide invaluable information for designing focused interventions.

Iran, with a population of 77 million and median age of 29 years, has a huge number of youths in the reproductive age group. About 24% of Iran's population is younger than 15 years [10].

Recent studies in Iran show that the prevalence of symptoms associated with sexually transmitted infections has been rising within younger age groups, while the seeking care behavior for STIs is lower among them. In addition, the prevalence of STI-associated symptoms is markedly higher among women than men [11]. In a study conducted in Iran, the main reasons mentioned for the need to provide sex education for adolescent girls included "easy access to inaccurate information sources", "existence of cultural taboos", and "increasing risky sexual behaviors among adolescents" [12]. In the studies performed in other countries such as Nicaragua, Kenya, Senegal, and Zambia, confidentiality has been identified as the main concern of the young people who were asked about barriers to attending STI services. Even when they are reassured that clinic information will be kept strictly confidential, they are often still worried that their parents or other adults will find out about their STIs [4]. Findings in most other studies indicate that discussions about sexual issues are traditionally seen as taboo, and even though nowadays they do take place particularly with mothers about menstruation, pregnancy and HIV/AIDS, discussions about more specific issues, such as sexual intercourse and relationships, arouse more resistance [13].

If the health system is supposed to manage and control the problems related to sex behaviors (such as sexually transmitted diseases and at the top of them Human Immunodeficiency Virus infection), there should be clear information about the character of real tutors and their share in teaching these issues. The main objective of the present study was to discover the depth of the puzzle of 'who is teaching our children about sex' in one of the most traditional societies of Iran.

2. Materials and Methods

The present study's population comprised university students aged between 18 and 22, who either were living in Zahedan with their parents or were permanent residents of one of the other districts of Sistan-va-Baluchestan Province. Being a permanent resident of the province was one of the prerequisites for entering the study. Another inclusion criterion was that the would-be participants needed to have spent the last three years of their high school in the province. To ensure that what students are learning in the university is not affecting their responses, viewpoints, and the way they remember their experiences, the students of biomedical fields, i.e. all the students of the Zahedan University of Medical Sciences, were excluded from the study.

In Iran, 18 is the legal age for independence, and all of the participants in this study were 18 years or older, i.e. they were legally competent to consent for themselves to being entered into the study.

When calculating the sample size, the researchers considered stratification by sex, i.e. a stratum for each sex. Based on the mere presumption that at least 85% of parents are not teaching their children about what might be considered sanitary sex behaviors, for a confidence interval of 5%, 67 participants were calculated in each stratum, and in total 134 students.

In each of the above-mentioned universities, a female interviewer, after explaining the objectives of the study to the invited participants and obtaining their verbal consent, presented them a two-page self-administered questionnaire. For the sake of confidentiality and to make sure that the gathered data might not be tracked back to the participants, no information which could reveal

their identity (including place of education, place of permanent residence, and field of study) was gathered through the questionnaires. However, in order to ascertain the inclusion and exclusion criteria, the above-mentioned criteria were checked verbally before finalizing the invitation of any potential participant. Totally, there were three interviewers, who took part in a training session before the beginning of the study.

The questionnaire was composed of 26 questions. The first 18 questions were about demographic characteristics of the interviewees and the next eight questions were meant to ask for their opinions and experiences about sexual issues. The face and content validity of the questionnaire was approved by an expert panel of Health Promotion professors in the school of public health, Zahedan University of Medical Sciences.

All of the questions were either closed or semi-closed. For the semi-closed questions, the participants were free to choose more than one choice in each instance. In addition, in order to make certain that the answers would be covering the subject from the participants' viewpoints and to prevent any self-restraint in answering the questions, there was always an "other" option, accompanied with a "Please explain" instruction, for every semi-closed question.

For analyzing the data, descriptive tables were used. In fact, the data were analyzed mostly in a descriptive manner using Stata statistical software (version 11.0).

The protocol of this study has been approved by the Ethics Committee of Zahedan University of Medical Sciences (Project Code: IR.ZAUMS.REC.1394065; 23 May 2015).

3. Results and Discussion

Apart from the students of Zahedan University of Medical Sciences, who were excluded as described above, the students of Tarbiat Moallem University were also banned from taking part in the study by the said university's vice-chancellor.

Out of the remaining universities in Zahedan district, Payam-e-Noor University, mostly offering masters and PhD programs using distance learning methods, was also excluded because its students were both hard to reach and out of the age range for the study (usually they were in their 4th decade of life). Therefore, only the students of two universities, i.e. Sistan-va-Baluchestan University and Islamic Azad University of Zahedan, remained in the study. Except some demographic characteristics, no other personal information was gathered through the questionnaires, so it was impossible to define exactly the proportion of participation of the mentioned universities in the study.

Totally, 134 students took part in the study, 65 men and 69 women. Due to some mistakes, two of the questionnaires which should have been given to male participants had been given to female ones.

Mean age of the participants for both sexes were 20.2 years (standard deviation for men and women were respectively 1.2 and 1.4 years). Table 1 depicts most of the demographic findings of the study, and Table 2 is about the participants' answers to the main questions. It is worth noting that in some instances, the participants had left some questions blank; as a result, in Table 1, not all totals come to 134. On the other hand, for some questions which the participants were free to select two or three choices for, the totals have added up to more than the number of the participants.

In total, 88.8% (119) of the participants had finished their high school in Zahedan and the rest in other districts of the province.

Except for three male participants, all of the other participants' mothers were alive at the time of the study. The fathers of nine participants (two men and seven women) were deceased at the time of the study.

Mean years of education of participants' fathers and mothers were respectively 12.3 (SD = 4.8) and 9.7 (SD = 5.4) years; and totally 22.0% of fathers and 43.0% of mothers had not finished their high school. Other demographic and educational details can be found in Table 1.

Table 1: Demographic Characteristics of the Participants.

	Male	**Female**	**Total**
	No(%)	**No(%)**	
Sex Composition	65 (48.5)	69 (51.5)	134 (100)
Age Distribution			
18 years	5 (7.8)	13 (18.8)	18 (13.5)
19 years	13 (20.3)	13 (18.8)	26 (19.6)
20 years	16 (25.0)	10 (14.5)	26 (19.6)
21 years	18 (28.1)	19 (27.5)	37 (27.8)
22 years	12 (18.8)	14 (20.3)	26 (19.6)
Marital Status			
Single	58 (89.2)	56 (82.4)	114 (85.7)
Married	7 (10.8)	12 (17.6)	19 (14.3)
Educating Level			
Associate Degree	4 (6.2)	3 (4.5)	7 (5.3)
Bachelor's Degree	61 (93.8)	64 (95.5)	125 (94.7)
Birth Order in Family			
1st	20 (30.8)	22 (31.9)	42 (31.3)
2nd	18 (27.7)	16 (23.2)	34 (25.4)
3rd	12 (18.5)	11 (15.9)	23 (17.2)
4th and below	15 (23.1)	20 (29.9)	35 (26.1)
Number of Sisters			
0	6 (9.4)	11 (15.9)	17 (12.8)
1	21 (32.8)	22 (31.9)	43 (32.3)
2	20 (31.3)	13 (18.8)	33 (24.8)
3	7 (10.9)	15 (21.7)	22 (16.5)
4 or more	10 (15.6)	8 (11.6)	18 (13.5)
Number of Brothers			
0	11 (17.2)	9 (13.0)	20 (15.0)
1	19 (29.7)	23 (33.3)	42 (31.6)
2	20 (31.3)	22 (31.9)	42 (31.6)
3	9 (14.1)	8 (11.6)	17 (12.8)
4 or more	5 (7.8)	7 (10.2)	12 (9.1)

When studying Table 2, paying attention to proportions (inserted as percentages in parentheses) might be more helpful in the interpretation of the results. With regard to question No. 1 and question No. 3, asking about the preferred contents of teaching materials for children, in total, less than 8.4% of the participants think that there is no need for conventional sex education for the youth (Table 2, question No. 1).

Question No. 2 shows a few differences between men and women with regard to their sexual health tutors. For women, mothers and then a close friend (respectively 44.9% and 42.0%) are the most frequently mentioned tutors; while for men, only friends (from street or school) have such a position (41.6%) and the roles of mothers (4.6%) and fathers (15.4%) are weak in this regard (Table 2). In addition, for men, the roles of the Internet (27.7%) and books (23.1%) also deserve mentioning. About the best age for initiating teaching sexual health issues (question No. 4), in both sexes, about 30 percent of the participants think that the best age range for initiating transfer of information regarding sex issues is from 12 to 14. This is while in both sexes, the same proportions of participants (i.e. 30%) have chosen 14 to 18 as the best age range for embarking upon transferring such information.

Question No. 5 asks about a very sensitive topic; 23.1% of men and 36.2% of women personally knew people of their own ages who had been subjected to sexual abuse or harassment during their life.

In response to question No. 6, asking, "Have your parents ever spoken with you about sex issues?", only one-fourth of the male participants and nearly two-thirds of the female ones have answered, "Yes". In response to Question No. 8, which asked, "In a scale of 1 to 100, how much of your knowledge about sex issues have been taught by your parents?" 18.5% of the men and 13.0% of the women have answered "None"! And only 9.3% of the male participants and 18.8% of the female participants have claimed that more than 50% of their knowledge about sex issues has been the result of their parents' teachings.

This was a thoroughly descriptive study, trying to explore the situation with regard to some aspects of teaching healthy sexual behavior to the youth in the study population. As mentioned before, 91.6% of participants agreed that sex education should be carried out conventionally for the youth (Table 2, question No. 1 and question No. 3). In the present study, men believing that educating about contraception and sexually transmitted diseases have to be part of the curriculum outnumber women having such an opinion (69.8% vs. 42.7%). However, this is somehow similar to findings in other studies done on lower age groups [14]. About the exact contents of what should be thought, the participants' choices are widely dispersed (Table 2, question No. 3); however, most participants believe that both ethical and religious codes need to be considered in the preparation of the teaching contents. This is somehow like the findings of Mbonile from Dar es Salaam, Mkumbo from Tanzania and Constantine from California [14-16].

About the age for beginning the teaching of sexual issues, the participants selected 12 to 14 and 14 to 18, almost with equal frequency as the best age ranges. This is very near to the choice of the students in the study of Mkumbo in Tanzania, who wanted the teachings to begin during primary education (ages 10-14) [14].

The findings were unexpectedly good with regard to the part played by parents. This was especially true for women and the proportion of them who had communication with their mothers (42.0%). However, proportionally, the amount of the information about sexual health and relationship that the female participants had acquired from their mothers was assessed by them as low; i.e. less than 18.8% of the women had received more than 50% of their knowledge from their mothers, which of course is not enough at all in order to guarantee their protection in their social interactions. This is either because parents do not have enough knowledge or because they usually do not like to discuss harder issues; and this is where the role of some qualified extra-family tutor gains importance. Usually parents have a greater role in educating the offspring of their own sex,

and this might obviously be seen in the results of the present study (Table 2, questions No. 2, No.6 and No. 7); however, mothers have had a more prominent role in educating their daughters than fathers in educating their sons (42.0% vs. 15.4%). The problem of difficulty in communication between parents and children is not limited to developing countries like Iran. In a study in USA (conducted on women aged 15-24 who had participated in the 2011-2013 National Survey of Family Growth (NSFG)), seventy-five percent of the participants reported not having received any sex education from parents and only 61% and 56% reported contraceptive and STI education by parents, respectively [17]. In a qualitative study, based on the results of fifty semi-structured interviews with parents, Walker concluded that parents possess skills as educators, but they also experience uncertainty and embarrassment about the aspects of their role. He concluded that "agencies should consider fully integrating parents into their health education strategies" [18]. Interestingly, findings of Asampong in Ghana are almost exactly the same [19].

It is interesting that in the present study, for the women, the role of a close friend (from school or street) had been even more prominent than the role of mothers (44.9%; Table 2, question No. 2). For the male participants, the role of friends (from school or street) had been almost as important as the role of the same source for the female participants (41.6% vs. 44.9%). These findings highlight the significance of the problem of non-committed tutors in teaching sexual issues to the youth. In the study of Turnbull about the role of effective communication in British families, findings are just similar to those of this study, i.e. although the majority of communication on sexual issues was found to come from the mother, men had felt that the content has been mainly steered towards the experience of females and, thus, were shifting to other sources (peers, media and the internet) to educate themselves about sexual issues [20]. Nambambi and Mufune (2011) argue:

"Parents are important because they support the emotional and physical development of children and greater parent-adolescent communication delays sexual initiation and reduces the number of sexual partners. We conclude that there is a need for parents to be taught how to educate their children on sex." [13].

Parents often lack knowledge about sexual development and are confused about whether to talk to their children about sex. They may have been brought up in a family where sex was not mentioned. They are worried that they do not have the skills or the knowledge to help their children. They do not know whether to leave it all to the school or not allow their children to have any information. All of the evidence shows that children who have had their questions answered and who know about sex and relationships start sexual activity later, use contraception more reliably, and are less likely to cause or have an unwanted pregnancy [21].

In order to mention the limitations of the present study, it needs to be reminded that the findings of this study are all based on the opinions and experiences of a selected group of university students, as the participants and as more educated youth groups, about their past experiences and feelings, i.e. their experiences when they were in high school. If the participants could be selected from lower age groups, i.e. 14 to 18 years of age, and from all social classes, including those who do not attend schools, and if the study could also consider the ideas and viewpoints of parents and teachers as well as the authorities of Ministry of Education, without any doubt, the results could be more conclusive. For issues like sexual health, qualitative research usually covers more unknown aspects of the problem, and the author recommends consideration of such a study with the participation of all stakeholders in the future. An issue that should be brought into consideration when interpreting the results of the present study as well as all the other similar studies is that usually the reference population constitutes all adolescent groups while the study population is limited to school children, exceptions to this rule are few, even in developing countries that the proportion of school children to out-of-school youth is small [13].

Parents, in particular, have to know that if they do nothing and continue to be passive with regard

to sexual problems of their young children, their negligence, their inaction, and the vacuum that their absence produces will not remain empty forever. There are many others and other resources in every society to fill in the gap. Unfortunately, the mentioned gap is usually filled by those who are not so welcome, i.e. by strays, by sex abusers, by more experienced young fellows (usually elders) who cannot sometimes even be prosecuted, because they themselves are somehow victims of the same poor, underdeveloped, and badly managed teaching environments, which evolve by themselves from nowhere in every society. As it was mentioned before, about one-fourth of the male participants and more than one-third of the female participants knew personally people of their own ages who had been subjected to sexual abuse or harassment during their life.

Table 2: Questions Used in the Study and the Response Pattern of the Participants to each Question by Sex.

	Male No (%)	**Female No (%)**	**Total**
Question 1: Which one of the following items do you agree with?			
Educating the youth about sexual issues is not necessary; they will learn everything in the society through conversations and interactions with their peers.	5 (7.9%)	6 (8.8)	11 (8.4)
Educating the youth about sexual issues to the extent that they learn their religious duties is enough.	13 (20.6%)	32 (47.1)	45 (34.4)
Educating the youth about contraception, sexually transmitted infections, and methods for preventing them by a competent tutor is a necessity.	44 (69.8%)	29 (42.7)	73 (55.7)
Others (without further explanation)	1 (1.59%)	1 (1.5)	2 (1.5)
Question 2: Which person or source has played the most prominent role in teaching sexual issues to you? (Do not choose more than 2 options).			
Father	10 (15.4)	2 (2.9)	12 (9.0)
Mother	3 (4.6)	29 (42.0)	32 (23.9)
Sister	1 (1.5)	8 (11.6)	9 (6.7)
Brother	3 (4.6)	1 (1.5)	4 (3.0)
One of the other blood relatives	5 (7.7)	5 (7.2)	10 (7.5)
One of the friends from street	10 (15.4)	2 (2.9)	12 (9.0)
One of the friends from school	17 (26.2)	29 (42.0)	46 (34.3)
One of the school teachers	8 (12.3)	1 (1.4)	9 (6.7)
One of the clergies in a nearby mosque	8 (12.3)	1 (1.4)	9 (6.7)
Internet (pictures and clips)	18 (27.7)	5 (7.3)	23 (17.2)
TV films including satellite channels	4 (6.2)	1 (1.2)	5 (3.7)

Movies distributed in the form of CDs and DVDs	2 (3.1)	1 (1.5)	3 (2.2)
Books about sex relationships	15 (23.1)	9 (13.0)	24 (17.9)
Others (without further explanation)	4 (6.2)	0 (0.0)	4 (3.0)
Question 3: Ideas about what should be included in teaching materials about sexual issues			
The exact anatomical meanings of "boy" and "girl" and their physical differences have to be learned.	21 (32.3)	20 (29.0)	41 (30.6)
The exact meaning of intercourse and what occurs during intercourse have to be learned.	16 (24.6)	5 (7.3)	21 (15.7)
The meaning of sexual abuse should be explained precisely.	14 (21.5)	17 (24.6)	31 (23.1)
Explanations should be at a level which is merely enough for the correct performance of religious duties.	9 (13.8)	15 (21.7)	24 (17.9)
The contents of teaching materials and the amount of education should be adjusted according to children's level of understanding and age.	12 (18.5)	25 (36.2)	37 (27.6)
Since the main objective of such teachings is to protect minors against sexual abuse and their exposure to sexually transmitted diseases, the contents should meet these objectives.	9 (13.8)	13 (18.8)	22 (16.4)
Teaching sexual issues is related to both ethical and religious issues; therefore, in the preparation of the teaching materials, expert opinions should be brought into consideration.	30 (46.1)	20 (29.0)	50 (37.3)
Question 4: In your opinion, which age is the best for increasing the awareness of the minors of your sex for preventing sexual abuse and educating them?			
8 to 10 years	8 (12.3)	7 (10.3)	15 (11.3)
10 to 12 years	11 (16.9)	6 (8.8)	17 (12.8)
12 to 14 years	21 (32.3)	21 (30.9)	42 (31.6)
14 to 18 years	20 (30.8)	21 (30.9)	41 (30.8)
18 years & older	5 (7.7)	13 (19.1)	18 (13.5)
After marriage	0 (0.0)	0 (0.0)	0 (0.0)
Question 5: Among those in your age range (including children in your neighborhood, your classmates, and the like), do you know anybody who has been subjected to sexual abuse due to their poor knowledge about sexual issues?			

Yes	15 (23.1)	25 (36.2)	40 (29.8)
Question 5/a: How many people do you know (in person) who have been subjected to sexual abuse?			
1 person	3	10	
2 people	5	5	
4 people	1		
5 people	1		
Plenty of people	2	2	
Question 5/b: At which age, had this happened to them?			
7-8 years		3	
9-10 years	5	3	
11-14 years	5	5	
15-18 years	10	9	
> 18		3	
Question 6: Have your parents ever spoken about sexual issues with you?			
Yes	16 (24.6)	42 (60.9)	58 (43.3)
Question 7: If yes, which one of them?			
Father	12	1	13
Mother	1	25	26
Both	1	1	2
Question 8: In a scale of 1 to 100, how much of your knowledge about sexual issues is the result of your parents' teachings?			
None	12 (18.5)	9 (13.0)	21 (15.7)
1 to 10%	25 (38.5)	12 (17.4)	37 (27.6)
11 to 30%	10 (15.4)	14 (20.3)	24 (17.9)
31 to 50%	9 (13.8)	21 (30.4)	30 (22.4)
51 to 70%	4 (6.2)	6 (8.7)	10 (7.5)
70 to 100%	2 (3.1)	7 (10.1)	9 (6.7)
No response	3 (4.6)	0 (0.0)	3 (2.2)

4. Conclusion

It might be said that the most frequently used resources of the study population for learning sexual (health) issues (one of the friends from school or street), might not be approved as an appropriate committed resource of health teaching.

And while most of the participants believe that it is a good practice to begin sexual health education somewhere in the age range of 12 to 18 years, they think integration of this issue in the formal school teachings is a necessity. In the present situation, obviously, there is a large gap between what is needed to cover the sexual issues of the new generations and what is presently at their service.

Conflict of Interest

There is no potential conflict of interest to declare.

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