

Educational Needs of Adult Men regarding Sexual and Reproductive Health in Ahvaz, Iran

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ARTICLE INFO

Article type:
Original article

Article History:
Received: 10-Jan-2015
Accepted: 05-Mar-2015

Key words:
Sexual and Reproductive Health
Educational Needs
Men
Need Assessment

ABSTRACT

Background & aim: Men's sexual and reproductive health is one of the most important public health issues. However, less attention has been paid to this matter, compared to women's health issues. The aim of this study was to evaluate the educational needs of men regarding sexual and reproductive health in Ahvaz, Iran.

Methods: This descriptive study was performed on 1,068 adult men (aged 20-60 years), selected via random cluster sampling in Ahvaz city in 2014. In order to determine the educational needs of men regarding sexual and reproductive health, a questionnaire consisting of three major sections (i.e., demographic data, sexual and reproductive health needs, and men's attitudes) was designed. The validity of the questionnaire was determined by content and face validity. Its reliability was assessed by internal consistency ($\alpha=85\%$) and test-retest. For data analysis, descriptive statistics, t-test and ANOVA were performed, using SPSS version 19.

Results: The majority of men (75.1%) had poor knowledge and a moderate attitude (67.3%) towards sexual and reproductive health. The three most important educational needs of men regarding sexual and reproductive health were cancers of male reproductive system (83.8%), sexually transmitted diseases (STD)/HIV (77.4%) and religious attitudes toward sex (77%), respectively. Friends were the most important source of information in all aspects of sexual and reproductive health, while men preferred to receive information from a male physician or counselor. According to the results, men were dissatisfied with the amount of information they received about sexual and reproductive health.

Conclusion: Based on the findings, men felt the need for sexual and reproductive health education; these needs were influenced by social and demographic factors, except marital status. If health policymakers pay attention to these educational needs, it is possible to implement suitable programs for improving men's sexual health and knowledge.

► Please cite this paper as:

Hajizadeh M, Javadnoori M, Javadifar N. Educational Needs of Adult Men regarding Sexual and Reproductive Health in Ahvaz, Iran. Journal of Midwifery and Reproductive Health. 2015; 3(3): 385-393.

Introduction

Although health policymakers have paid particular attention to men's spousal and paternal roles, their sexual and reproductive health needs have been disregarded (1). Men, similar to women, benefit from health-related information and healthcare services, which enable them to lead healthy lives. In fact, men, who are aware of their

own reproductive and sexual health needs, as well as their spouses' needs, are more successful fathers and partners (1).

In many countries including Iran, healthcare systems are female-oriented (2). Consequently, men are uninformed about their own actual needs (3). Men during their lifetime need

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various healthcare services, particularly educational and counseling services. Most of these needs are influenced by the individual's marital status, socio-economic status, race, ethnicity, employment status and educational level (4).

Sexual and reproductive health in its broadest sense should encompass the health of all individuals, not only women (5). Moreover, since men actively participate in sexual behaviors and decisions, their health issues can negatively affect their economic status, marital stability, and the health of women, children and family in general (6).

It is not possible to achieve sexual and reproductive health goals without considering men's knowledge, understanding and participation. Men's role is of high significance due to various factors. In fact, changes in men's and women's knowledge, attitude and behavior are a prerequisite for attaining a balanced relationship between partners (7).

Men, especially in traditional societies, play dominant roles concerning reproductive health-related issues. Moreover, men are still responsible for many decisions regarding family size, birth interval, use of contraceptive methods, and prevention of sexually-transmitted diseases (STD)/HIV (8). Men also determine their spouses' attitudes towards different aspects of sexual and reproductive health (9).

Undoubtedly, education is necessary for changing and improving men's knowledge and attitude and can lead to their appropriate functioning and lifestyle changes (8). As various studies have indicated, dismissing men's role results in the failure of sexual and reproductive health programs in society. For instance, in some countries, women cannot use family planning methods without obtaining an official permission from their partner (5). Also, a high percentage of women (32-92%) with a prior history of abortion stated that their sexual partners had forced them to terminate their pregnancy (10).

Therefore, focusing on men, as well as women, in sexual and reproductive health programs is of high importance (3). According to World Health Organization (WHO), in many world regions, social and cultural barriers against sex education and positive expression of

sexual matters have led to the absence or low level of sexual health quality (11). In fact, sexual issues are considered taboo in many Asian countries (12, 13).

In Iran, there are many social and cultural challenges in the family and at school regarding sexual training, particularly for single individuals; as a result, people begin their sexual life without any prior preparation or training (14, 15). The main objective of health promotion programs is empowering individuals through improving their health awareness and knowledge so that they can lead a healthy lifestyle and avoid unhealthy behaviors (16).

One of the most unexplored areas of health in our society is men's sexual and reproductive health. Moreover, the health of society is highly threatened by AIDS-associated complications and mortality, as well as unsafe abortions. The latest statistics on AIDS in 2013 showed that 35 million people were infected with HIV, worldwide, and approximately 1.5 million individuals died as a consequence of this disease (17). In Iran, until the beginning of 2013, a total of 26,126 people were identified with AIDS, among whom 90.8% were men (18).

About 40% of all pregnancies in the world are unwanted, and 50% of them are aborted (19). The prevalence of unintended pregnancy in Iran is 27.94 per 100 pregnant women and the ratio of induced abortion is 5.34 per 100 live births (20). Therefore, promotion of men's sexual and reproductive health, which has been highly neglected, can lead to health and lifestyle improvement, STD/HIV prevention, and reduction of unwanted pregnancies and unsafe abortions (6).

Despite the fact that men form a significant part of Iran's population, little information is available about their sexual and reproductive health status and needs. So far, no study has evaluated the sexual and reproductive health needs of men in Iran, and few studies have focused on the needs of students and those ready for marriage. Moreover, the performed research has indicated the limited awareness of young people about sexual and reproductive health, highlighting the importance of addressing their needs (21, 22).

The first step in designing any health program is to identify the needs of the target

population. In fact, no program can be effective without considering the actual needs of the target group (23). The aim of this study was to identify the educational needs of men regarding sexual and reproductive health in order to design and plan effective health programs for this population.

Materials and Methods

This descriptive study was performed on 1,068 men, residing in Ahvaz city, Iran. Men, aged 20-60 years, were included in the study and those without mental health were excluded.

The data collection tool was a researcher-made questionnaire. Face validity of the questionnaire was confirmed via two qualitative (conducting interviews with 10 men) and quantitative methods (calculating the impact score), and content validity was approved by content validity ratio (CVR) and content validity index (CVI). The questionnaire was read by 10 faculty members of Ahvaz University of Medical Sciences (five female experts in the field of sexual and reproductive health, two male PhD students of nursing and three male urologists).

Internal consistency and test-retest were applied to assess the reliability of the questionnaire. For this purpose, the questionnaire was completed by 40 men with characteristics similar to the study sample. Finally, the reliability of the questionnaire was confirmed by 85% Cronbach's alpha. Also, test-retest (with a two-week interval) indicated the reliability of the questionnaire (Pearson's correlation coefficient of 89%).

Considering the cultural sensitivities and the difference in the gender of researchers and the study population, male interviewers were responsible for collecting the data. The interviewers were justified by the researcher in a briefing session and were given instructions on how to complete the questionnaires.

The sample size was determined after performing a pilot study. Randomized cluster sampling was applied in the present study. At first, the city was divided into five regions (i.e., Northern, Southern, Central, Eastern and Western regions). Considering the sample size, 13 blocks were selected from each region and 18 samples were selected from each block. Afterwards, the interviewers with a map of the

selected block visited the first residential unit in the southeastern corner of the block and completed the first questionnaires.

In order to complete the rest of the questionnaires, by moving in a clockwise direction, the distance was added to the number of the current housing unit. After selecting the sample family, only one person was chosen among all eligible individuals in the family.

In order to be assured about the presence of men in the household, the interviewers visited the houses in the evening to collect the required data. The researchers handed out the questionnaires to the participants after introducing themselves and taking their consent. The researchers performed continuous daily monitoring at all stages of the study for qualitative control of the data.

The questionnaire included 11 items on demographic characteristics, 22 items on the educational needs of men regarding sexual and reproductive health, and 10 items on participants' attitudes. Among 22 items on sexual need assessment, 13 items were related to family planning needs, STD/HIV, sexual disorders, male genital diseases, information sources, and satisfaction with the obtained information. The remaining nine questions included 30 sub-items related to knowledge assessment and normative needs regarding family planning, STD/HIV and sexual disorders. One score was allocated to each item. Each correct answer was given one score and each incorrect answer was given zero score; the total score of knowledge assessment was 30.

The rate of knowledge and educational needs was classified in three groups, based on the obtained scores: poor knowledge with high educational needs (score < 14), moderate knowledge with moderate educational needs (score 15-24), and good knowledge with low educational needs (score 25-30).

To assess the participants' attitudes, 10 items were designed and graded by a Likert scale. Seven items were related to sexual and reproductive health and three items were concerned with misbeliefs about sexual and reproductive health. The attitudes of participants were given a score from 1 to 5 (completely disagree, disagree, neutral, agree and completely agree), and the total score was

50. The final score was classified as follows: negative (score < 25), moderate (score 25-37) and positive (score > 37) attitudes.

After data collection and coding, descriptive statistics (e.g., percentage and mean) were calculated, using SPSS version 19. T-test and ANOVA were performed to assess the relationship between different variables. P-value less than 0.05 was considered statistically significant. The study was approved by the ethics committee of Ahvaz Jundishapur University of Medical Sciences (project code: jums.REC.1392, 309).

Results

The mean age of the subjects was 33.5±9.085 years. In total, 71.3% of men were married and 28.7% were single. Most men had a high school diploma (42.1%) and the monthly income was 500,000 to 1,000,000 tomans in the majority of cases (50.7%)(Table 1).

Table 1. Socio-demographic characteristics of participants

Variables	Groups	Frequency (%)
Age (years)	20-30	507(47.5)
	31-40	350(32.8)
	41-50	140(13.1)
	51-60	71(6.6)
	Total	1068(100)
Educational level	Primary education	96(9)
	Secondary education	213(19.9)
	High school diploma	450(42.1)
	Above diploma	189(17.7)
	Bachelor's degree and above	120(11.2)
Total	1068(100)	
Marital status	Married	762(71.3)
	Single	306(28.7)
	Total	1068(100)
Premarital sex (single)	Yes	120(11.2)
	No	186(17.5)
	Total	306(28.7)
Sexual partner (single)	Homosexual	6(5)
	Heterosexual	85(70.8)
	Girlfriend	13(10.8)
	Female sex worker	16(13.3)
	Others (use of objects)	16(13.3)
Income level (Toman)	No income	120(11.2)
	≤ 500,000	213(19.2)
	500,000-1,000,000	542(50.7)
	≥1,000,000	193(18.2)
	Total	1068(100)

Table 2 shows the grouping of men, according to their knowledge and attitude scores on sexual and reproductive health. As it can be seen, 75% of men had poor knowledge, with many educational needs in different areas of sexual and reproductive health. Also, 67.3% of men had a relatively positive attitude towards sexual and reproductive health issues.

Men's knowledge was poor regarding the signs, symptoms, transmission routes and prevention of HIV/STD and family planning. Only 36.6% of men were able to name three contraceptive methods without any help. Also, only 37.1% and 25.3% of men considered lesions in the genital tract and purulent penile discharge as the signs of STD. According to the results, 43% of men did not know that STD is transmitted between men and women, and only 22.1% knew that HIV can be transmitted from the mother to the fetus during childbirth.

In total, 39% of men stated that adherence to the ethics of marriage and loyalty to one sexual partner can be considered as STD preventive methods. In addition, 59.9% of men were aware of the role of condoms in preventing HIV and STD. As the results indicated, 80.1% of subjects did not know where to refer in case they suspected STD.

In this study, the incidence of unwanted pregnancy was estimated at 25.4%, indicating men's inadequate knowledge and skills regarding contraceptive methods. According to the results, 39.9% of men did not know how to

Table 2. Knowledge, attitude and normative needs of participants

Variables	Groups	Frequency		Normative needs*
		%	N	
Knowledge	0-14 (Poor)	1.75	802	High
	15-24 (Moderate)	2.22	237	Moderate
	25-30 (Good)	7.2	29	Low
Attitude	0-25 (Negative)	1.11	119	High
	26-37 (Moderate)	3.67	719	Moderate
	38-50 (Positive)	5.21	230	Low

* The minimal knowledge an individual should have about sexual and reproductive health, based on expert opinion (24).

Table 3. The relationship between demographic characteristics and the level of knowledge and attitude in the study groups

Variables	Groups	Mean score of knowledge	Test	Mean score of attitude	Test
			P-value		P-value
Age (years)	20-30	11.85	ANOVA P<0.0001	33.96	ANOVA P<0.0001
	31-40	12.49			
	41-50	12.44			
	51-60	5.77			
Educational level	Primary education	8.6	ANOVA P<0.0001	29.56	ANOVA P<0.0001
	Secondary education	9.12			
	High schooldiploma	11.85			
	Above diploma	13.34			
Marital status	Bachelor's degree and above	15.83	t-test P=0.924	36.14	t-test P<0.0001
	Single	11.7			
	Married	11.74			
Income (toman)	No income	11.76	ANOVA P<0.0001	36.17	ANOVA P<0.0001
	≤ 500,000	11.03			
	500,000-1,000,000	11.41			
Premarital sex (single)	≥1,000,000	13.35	t-test P=0.254	34.18	t-test P<0.0001
	Yes	12.15			
	No	11.48		33.55	

prevent unwanted pregnancy if the condom was torn during intercourse. Also, only 22.2% of men knew that vasectomy is not harmful. In addition, 23.3% of participants reported that vasectomy led to decreased libido and 18% considered it as a cause of cancer.

ANOVA test was used to compare the level of knowledge and attitude in subjects within different age ranges, with different educational levels and income. A statistically significant

difference was observed between different groups (Table 3). T-test results of the comparison of knowledge scores showed no significant difference between married and single subjects (P=0.924). However, the attitude score was significantly different between married and single participants (P<0.0001).

The educational needs (of high priority) of men are shown in Table 4. According to the results, the most important educational need of men regarding sexual and reproductive health was cancers of male reproductive system (83.8%).

The main sources of information for men regarding contraceptive methods were friends (39%) and Internet (12.5%), respectively, while most men preferred to obtain information from a male counselor (24.5%) and healthcare centers (18.3%), respectively. Concerning sexual infections, the most important sources of information were friends (23.9%) and books/magazines (12.7%), while the preferred sources of information were male physicians/counselors (31.1%) and teachers/professors (12.2%), respectively.

Also, in terms of sexuality, the main sources of information were friends (45%) and healthcare centers (13.7%), respectively. However, the preferred sources of information were male physicians/counselors (26.5%) and healthcare centers (13.2%), respectively. The results showed that 63.5% of men were dissatisfied with the obtained information on sexual and

Table 4. Men's educational needs regarding sexual and reproductive health

Priority	Topic	Frequency (%)
1	cancers of male reproductive system	895(83.8)
2	STD/HIV/AIDS	827(77.4)
3	Religious attitudes towards sex*	822(77)
4	Urogenital diseases**	819(76.7)
5	Psychological aspect of sex	Male 817(76.5)
		Female 791(74.1)
6	Infertility	Male 764(71.5)
		Female 759(71.1)
7	Contraceptive methods	737(69)
8	Paternal role	736(68.9)
9	Pregnancy & prenatal care	592(55.4)
10	Anatomy & physiology of the reproductive system	Male 554(51.9)
		Female 543(50.8)

* The effects of unconventional intercourse on health and religious views about unconventional ways of intercourse, relationship with the partner, and masturbation

**Inguinal hernia, varicocele, prostatic hyperplasia, hydrocele, and occupational hazards on fertility

reproductive health at schools. Also, 40% of men were dissatisfied with the information presented during marriage counseling.

Discussion

The findings of the current study suggest that men have highly felt needs to obtain information in all areas of sexual health. Some studies have also indicated the poor knowledge of Iranian men in sexual and reproductive health (scores less than 5 out of 30) (25). In a study by Moody and colleagues, 74.4% of men and women had gathered information on sexual and reproductive health before marriage, whereas 83.2% of them had poor knowledge on this subject (26).

Even in low-income African countries including Ethiopia and Nigeria, men's knowledge about sexual and reproductive health is better than Iranian men (27, 28). This difference is probably due to cultural sensitivities, which limit the provision of explicit instructions on sexual and reproductive health issues. Also, in the present study, knowledge about vasectomy was limited, similar to a study in Nigeria, which showed that only 23.2% of men had enough information about vasectomy (29).

Despite the global attempt at reducing HIV and significant attention to this disease in the media (even Iranian media), public knowledge is quite poor. In fact, in many countries, educational programs for STD/HIV prevention start at school; however, this type of training has no place in Iran (14, 15).

In a study in England, men's knowledge about STD was poor. One out of every five men had not heard about STD, and most men did not know that STD can be asymptomatic. Also, only 13% of subjects knew where STD service clinics are located (30). The results of our study showed that 67.3% of men had a relatively positive attitude towards sexual and reproductive health. Also, in a study in Turkey, 59% of boys had a positive attitude towards sexual and reproductive health training (31).

In this study, 28.3% of men reported that family planning is only women's responsibility. A study conducted in Scotland, China and South Africa also showed that over 65% of women, referring to family planning clinics, believed that they were responsible for family planning (32).

The variety of contraceptive methods for women, limited number of methods for men, negative sexual attitudes (i.e., family planning is only women's responsibility) resulted in the lower participation of men in family planning programs.

In some provinces of Iran, the share of women's participation in family planning is up to 20 times more than men (33). Despite the changes in Iranian population policies and emphasis on increasing fertility rates in recent years, no serious actions have been taken in order to enhance men's participation in making decisions for birth interval and family planning; in fact, men's involvement is important for ensuring the health of the mother and child.

The obtained results showed that men, aged 31-40 years, had the highest mean score of knowledge, and those aged 51-60 years had the lowest level of knowledge, which is perhaps due to the higher access of 31-40 year-olds to the media and information sources. As expected, men with a higher educational level were more knowledgeable than other participants. Since 71% of the subjects had a high school diploma or less, the findings highlight the need for more attention to the education of men with low educational levels.

On the other hand, the positive relationship between men's knowledge level, education and income level suggests that social and cultural factors are involved in the promotion of men's sexual and reproductive health. In fact, they can enhance their level of knowledge by improving their quality of life and life standards.

The findings of this study showed that the three most important educational needs of men were "cancers of male reproductive system", "STD/HIV" and "religious attitudes towards sex", respectively. Considering the shocking rates of death due to cancer and AIDS in recent years and common concerns in this regard, the present findings about the first and second educational priorities of men can be justified. Moreover, the importance of religious attitudes toward sex is understandable in people, considering the social and cultural conditions of the country and people's insufficient knowledge about healthy sexual relations.

In a study in China, the three most important educational needs of subjects were "normal

sexual behavior" (60.8%), "sexual/psychological health" (55.5%) and "contraception" (49.7%) (34). The findings of this study also showed that about half of men felt the need to be educated about the anatomy and physiology of the reproductive system. The available training programs for men in marriage counseling or school biology textbooks are almost exclusively focused on anatomy. However, this study showed that such educational programs are still needed by men, indicating the ineffectiveness of available training programs.

In this study, 11.2% of single individuals reported a prior history of sexual intercourse. In other studies in Iran, the rate of sexual intercourse outside marriage was reported to be 16-27% (22, 35); it should be noted that the actual rate may be higher than the reported statistics. Throughout the world, men start having sex earlier than women, and they have more risky sexual behaviors, as well as multiple sexual partners (1); therefore, they are at risk of complications associated with STD and HIV.

In this study, the majority of men received their information from less knowledgeable people such as their friends, while in the majority of studies in other countries, young people had obtained information about sexual and reproductive health via newspapers, media, healthcare providers and friends (to a lower extent). For instance, in Ethiopia, the most important information sources of men on family planning were healthcare workers (56.7%) and radio (49.4%), respectively (26). Also, regarding STD in Tanzania, the most important sources of information were radio and television (93%) (36).

Concerning sexual relations in Romania, the most important sources of information were friends (35.2%) and media (26.4%), respectively (37). Hence, planning for training programs and forming same-age groups at educational centers, workplaces, and sports centers can also help improve the knowledge of men about reproductive and sexual health issues. Moreover, simple access to international media may change the attitudes, social norms and values about sexual activities.

In this study, information on the effects of different forms of intercourse on sexual and reproductive health and religious views about unconventional intercourse were the second

and third training needs of men in the area of sexual intercourse. Therefore, it is suggested that extensive training by the media, especially radio, television and the press, be designed according to the knowledge of different social classes to ensure the understanding of sexual matters by the public. Also, advertising in the society could change the knowledge, attitudes and behaviors of individuals.

This research was one of few studies on men's sexual and reproductive health needs in Iran, performed on a wide age range of individuals including middle-aged men. However, we cannot generalize the attitudes and behaviors of men in this study to all Iranian men. Therefore, performing more extensive research, especially with a qualitative approach, can provide more information about men's sexual and reproductive health needs.

Conclusion

Based on the findings, men felt the need for sexual and reproductive health education in various areas. These needs were influenced by social and demographic factors, except marital status. Considering the scarcity of information and misbeliefs about some aspects of sexual and reproductive health among men, it is recommended that health and educational policymakers meet men's needs through planning and implementing training and counseling services.

Acknowledgements

This study was extracted from an M.Sc. thesis, funded by Ahvaz University of Medical Sciences. We would like to express our deepest gratitude to all participants who helped us conduct this study.

Conflict of Interest

The authors declare no conflicts of interest.

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