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Sexual Health Beliefs among Newly Married Couples: A Health Belief Model Approach

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ABSTRACT

Background & aim: Sexual health beliefs significantly influence newly married couples' behaviors and marital satisfaction, impacting overall relationship quality. In this regard, dentifying misconceptions and inaccurate beliefs is vital. This study assessed these beliefs and misconceptions in newly married couples using the Health Belief Model (HBM).

Methods: In this descriptive-analytical cross-sectional study, 210 newly married individuals (115 women and 95 men) referred to the pre-marriage counseling center in Esfarayen, Iran, in 2022 were selected using convenience sampling. Data were collected using a validated questionnairethrough closed interviews. For data analysis, SPSS version 22 was used. Descriptive statistics as well as inferential statistical tests including independent t-test, one-way ANOVA, and Pearson's correlation coefficient, were applied for data analysis.

Results: The mean scores (range) were as follows: awareness, 13.8±5.06 (2–20); perceived susceptibility, 22.18±6.5 (9–35); perceived severity, 23.16±4.5 (10–35); perceived benefits, 15.21±2.4 (8–20); and perceived barriers, 7.77±2.9 (2–20). Significant associations were observed between health belief model constructs and demographic variables includingage, education, employment, ethnicity and place of residence ($p<0.05$). The most common sources of sexual health information were the Internetinternet and friends, and nearly half of the participants cited cultural taboos as a major barrier.

Conclusion: The findings indicate that although newly married couples demonstrated moderate awareness and favorable beliefs about sexual health, cultural barriers remain a key challenge. Expanding access to valid information sources and addressing social taboos are crucial for improving sexual health behaviors in this population.

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Introduction

Sexuality is an important part of human life and the source of pleasure, comfort, expression of love, emotions, and family formation. Although good sex may not have much effect on success, happiness, and marriage, not having good sex can greatly destroy a marriage (1). WHO defines sexual health as "a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and

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maintained, the sexual rights of all persons must be respected, protected and fulfilled" (2).

Sexual health encompasses not only the lack of illness, malfunction, or impairment but also the physical, mental, and social health associated with sexual activity, which requires free access to health services and information (3). At the international conference in Beijing, all the health authorities of the participating countries were required to create suitable conditions for educating young people about correct sexual relations. Iran, as one of the participating countries, has taken a wide range of measures to realize the practical plans of this conference. One such measure is the establishment of premarital counseling courses, which have proven highly beneficial (4).

It has been determined that one of the significant problems in our society today is the insufficiency of information and the prevalence of erroneous attitudes and beliefs concerning sexual matters. On the other hand, the misunderstanding of sexual affairs and the existence of misunderstandings and social and cultural barriers that hinder education about sexual issues and affairs have declined the quality and quantity of sexual health services (5). In addition, correct sexual relations strengthen emotions and feelings between couples, improving the quality and efficiency of children's education. Healthy sexual relations depend on various factors, such as personal beliefs, cultural beliefs, university education, and family life education (6).

Sexual issues are one of the most common social problems, affecting different aspects of life. These issues include marital disputes (80%), divorce (50-60%), and infidelity (40%), which are caused by a lack of sexual satisfaction between couples (5). Sexual issues are an inseparable part of human existence and play a significant role in the family's overall health. As a result, couples' knowledge of correct and fruitful relationships can have a significant impact on improving the sexual health of society (7). A study conducted among couples referred to the pre-marriage counseling center in the north and east of Tehran, Iran, showed that couples' awareness of sexual issues was insufficient, requiring 86% of the subjects to get information. Additionally, a significant relationship was identified between the level of knowledge and the level of education of the clients (4). Although sexual desires are innate and involuntary, sexual beliefs and behaviors are learned (6).

Studies show that couples' knowledge and attitudes about sexual issues play a big role in establishing correct and satisfactory sexual relations (8-10). It seems that the proper learning of sexual issues prevents the occurrence of sexual disorders and helps to adopt a more appropriate approach to dealing with sexual problems. This learning makes couples more sensitive and aware of their interpersonal relationships, leading to more intimacy and pleasure. In addition, awareness of these issues helps couples improve communication, have more rational and responsible sexual relationships, and act better in such matters (11-12).

In health education, various models have been designed to change harmful behaviors in society. One of the most practical and applicable health education models in the field of prevention is the health belief model (13). This model shows the relationship between health beliefs and health behaviors, based on the principles that each person's health behavior is formed based on those beliefs and knowledge. In addition, HBM emphasizes that people's understanding of vulnerability to an issue or problem will affect their decision regarding health behavior (14).In recent years, the Health Belief Model (HBM) has been widely applied by researchers to explain sexual health behaviors and beliefs across various populations. For example, Barati et al. (2014) conducted a study among couples attending pre-marriage counseling centers in Hamadan, Iran, and demonstrated that couples' sexual health knowledge and beliefs were significantly associated with the HBM constructs (14). Similarly, Aslani et al. (2016) found that university students showed high sensitivity to perceived vulnerability and risky sexual behaviors when analyzed through the dimensions of the HBM (15). Bostani et al. (2017), using a qualitative approach, emphasized that insufficient sexual health knowledge remains a critical barrier to sexual health promotion among couples. International evidence also confirms the relevance and

applicability of the HBM in the field of sexual health research, as demonstrated by Makinde et al. (2020) in Nigeria and Liyanage et al. (2024) in Sri Lanka, both of which highlighted the significant role of HBM constructs for understanding sexual health knowledge, attitudes, and barriers to effective educational interventions. Given that sexual beliefs and attitudes are influenced by psychological, cultural, and social factors, the HBM provides a valuable framework for better understanding sexual behaviors and for planning effective educational interventions tailored to diverse populations (9, 16).

Since, to the best of our knowledge, such study has not been conducted in Iran, the researchers aimed to determine the sexual health beliefs of newly married couples based on the Health Belief Model.

Materials and Methods

This descriptive and analytical cross-sectional study included 210 participants (115 women and 95 men) from newly married couples referred to the pre-marriage counseling center in Esfarayen, Iran. The participants were selected using the convenience sampling method.

Based on the study by Barati et al. (13-14), taking into account the confidence level of 95%, the statistical power of 80%, and the correlation coefficient of -0.192 between the perceived barriers and the perceived benefits obtained in this article, a sample size of 210 individuals was considered for this study using G Power software. The participants were selected from newly married couples. The inclusion criteria were the desire to participate in the study, the first marriage of the couple, and the absence of forced marriage.

Participants were excluded from the study if they were unwilling to participate or refused to complete the questionnaire at any stage. Incomplete questionnaires were also considered as grounds for exclusion. Additionally, any individual who did not provide verbal consent prior to participation was not included in the final analysis.

In this study, a two-part Socio-demographic characteristics questionnaire and a standard sexual health questionnaire were used to collect data.

A)Socio-demographic characteristics including age, gender, educational status, residence place, and economic status.

B) Standard sexual health questionnaire:

The standard sexual health questionnaire developed by Barati et al. (2014) evaluates participants' awareness of the factors affecting sexual health and their beliefs related to sexual health based on HBM. Using a 20-item questionnaire with three response options (yes, no, I don't know), knowledge of factors affecting sexual health and its consequences, such as STDs, contraceptive methods, nutrition, smoking and drug use, depression, anxiety, and sleep, was assessed. A score of one was given for each correct answer, and a score of zero for each wrong answer, or the "I do not know" option. It is notable that obtaining a higher score indicated greater awareness of the factors affecting sexual health and its consequences. Other questions was focused on beliefs related to sexual health based on HBM included four parts: perceived susceptibility (3 questions), perceived severity (4 questions), perceived benefits (8 questions), and perceived barriers (7 questions), assessed on a 5-point scale with options ranging from one (completely disagree) to five (completely agree). The cues to action were measured with 10 questions on a 3-point scale (yes, no, somewhat). The questions' internal correlation coefficient (Cronbach's alpha) was 0.75 for perceived susceptibility, 0.82 for perceived severity, 0.79 for perceived benefits, 0.84 for perceived barriers, and 0.72 for cues to action(14) The reliability of the questionnaire was estimated to be 0.95 using Cronbach's alpha.

To collect data, two interviewers who had the necessary information in the field under study completed the questionnaires. The interviewers explained the purpose of the research to the couples and asked them to answer to the questions using closed interview approach. In addition, before entering the study, verbal consent was obtained from all participants.

Data analysis was done using SPSS statistical software, version 22. The independent t-test was used to compare the means of two independent populations, and a one-way analysis of variance (ANOVA) was used to compare means in more than two independent

groups. The relationship between the constructs of the HBM has also been investigated using the Pearson correlation coefficient. The significance level was considered less than 0.05.

Results

The average age of the participants was 25.25±6.31; 54.8% were women, and 45.2% were men. Table 1 reports the frequency distribution of other demographic variables.

Table 1. Frequency distribution and percentage of demographic variables

Variable levels	Frequency (%)
Age	
10-20	53 (25.2)
21-30	114 (54.3)
31-41	43 (20.5)
Sex	
Female	115 (54.8)
Male	95 (45.2)
Education	
High school	45 (21.4)
Diploma	62 (21.5)
University	103 (49)
Place of residence	
City	129 (61.4)
Village	81 (38.6)
The age gap between couples	
1-3year	82 (39)
4-6year	90 (42.9)
>7 year	38 (18.1)
Employment status	
Governmental employee	40 (19)
Self-employee	61 (2.9)
Worker	9 (4.3)
Non-employee	14 (6.7)
Housewife	51 (24.3)
Student	35 (16.7)
Ethnicity	
Fars	118 (56.2)
Kurd	58 (27.6)
Turk	31 (14.8)
Tat	3 (1.4)
Economic situation	
Poor	13 (6.2)
Medium	151 (71.9)
Rich	46 (21.9)
Underlying diseases	
Yes	203 (3.3)
No	7 (96.7)
Smoking history	
Yes	12 (5.7)
No	198 (94.3)

Table 2 of the matrix shows the correlation coefficient between the couples' awareness and the constructs of their HBM. According to the statistical test results, a positive and significant correlation was detected between perceived benefits, perceived severity, perceived susceptibility, and cues to action with awareness. In contrast, the variable of perceived barriers had a negative and inverse correlation with awareness ($P<0.05$). A positive and significant correlation was observed between barriers, perceived severity, and awareness, while an inverse and negative correlation was reported between cues to action and perceived benefits ($P<0.05$). Perceived severity positively and significantly correlated with awareness, cues to action, barriers, benefits, and perceived susceptibility ($P<0.05$).

In addition to the correlation matrix, the descriptive statistics related to the constructs of the Health Belief Model and awareness were also examined. The mean score of couples' awareness was 13.8 (±5.06) out of a maximum obtainable score of 20, indicating a moderate level of awareness. Among the HBM constructs, the highest mean score was related to perceived severity (23.16 ±4.5), followed by perceived susceptibility (22.18 ±6.5), perceived benefits (15.21 ±2.4), cues to action (12.91 ±6.6), and perceived barriers (7.77 ±2.9). These values reflect the participants' relatively high perception of severity and susceptibility regarding the health issue, while perceived barriers scored the lowest. This pattern provides additional context to the significant correlations observed among these constructs and their relationship with awareness.

Table 2. Mean, standard deviation, the range of the obtainable score, and Pearson correlation coefficient matrix between constructs of health belief mode

Variable	Awareness	Perceived susceptibility	Perceived severity	Perceived barriers	Perceived benefits	Cues to action	Mean ±SD	obtainable score range
awareness	**1**						5.06±13.8	0-20
Perceived susceptibility	0.005	1					6.5±22.18	8-35
Perceived severity	0.329**	0.003	1				4.5±23.16	8-40
Perceived barriers	-0.273**	0.176 *	0.04	1			2.9±7.77	3-15
Perceived benefits	0.0402**	-0.194**	0.534**	-0.101	1		2.4±15.21	6-20
Cues to action	0.440	-0.630	0.280 **	-0.146*	0.213**	1	6.6±12.91	0-30

According to the Figure 1 and the analysis and review of sexual health guidelines, the internet and friends were the most important cues to action regarding sexual issues.

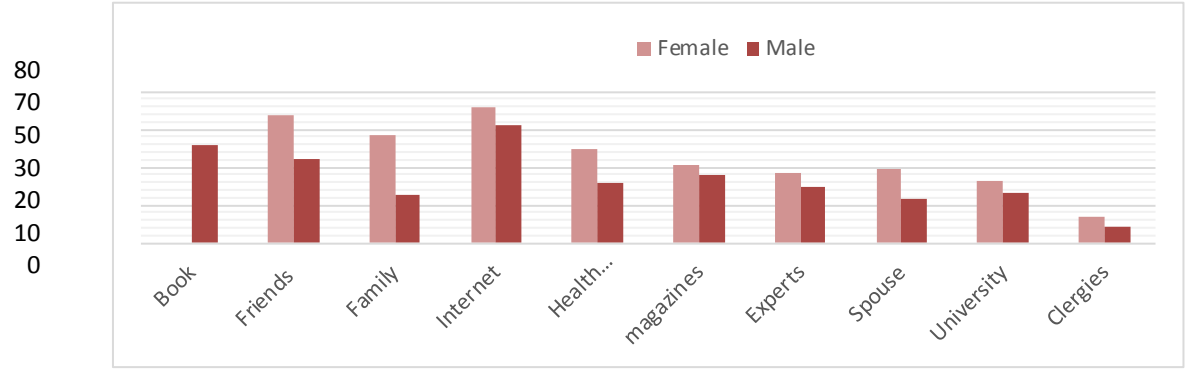

Figure 1. Frequency distribution of the cues to action related to sexual health according to the participants'sex

Table 3 shows the relationship between the demographic variables and the constructs of health belief model. According to the results, there is a significant relationship between the employment status and the perceived susceptibility, and there is a significant relationship between the variables of education and ethnicity with the perceived severity of the other. This section contains the results of the current study. There is a significant relationship between the variables of age, smoking history, place of residence, the age gap of the couple, and the perceived barriers. In addition, there is a relationship between age, place of residence, education, and ethnicity and the perceived benefits. Also, a statistically significant relationship was observed between age, education, occupation, and the practice guide ($p<0.05$).

Table 3. The relationship between the demographic variables and the constructs of the health belief model (N=210)

Variable	Perceived susceptibility		Perceived severity		Perceived barriers		Perceived benefits	
	Mean ±SD		Mean ±SD		Mean ±SD		Mean ±SD	
Age								
10-20	7.74±2.9		14.79±2.1		25.19±5.9		30.68±3.9	
21-30	7.82±2.4	0.970 [a]	15.36±2.2	0.360 [a]	21.68±6.4	0.001 [a]	32.65±4.6	0.024 [a]
31-40	7.82±3.9		15.35±3.3		19.77±5.9		32.67±4.8	
Education								
High school	8.11±2.5		13.14±2.0		24.27±6.7		29.80±3.9	
Diploma	7.85±3.3	0.540 [a]	5.26±2.3	<0.001 [a]	22.27±6.2	0.050 [a]	31.37±4.2	0.0001 [a]
University	7.57±3.2		15.98±2.3		21.20±6.4		33.66±4.4	
Sex								

Variable	Perceived susceptibility		Perceived severity		Perceived barriers		Perceived benefits	
	Mean ±SD		Mean ±SD		Mean ±SD		Mean ±SD	
Male	8.00±2.8	0.210 [b]	15.30±2.3	0.330 [b]	22.13±6.7	0.880 [b]	32.21±4.0	0.850 [b]
Female	7.40±2.9		10.03±2.6		22.11±6.1		32.01±5.9	
Place of residence								
City	7.57±2.9	0.190 [b]	15.47±2.4	0.050 [b]	21.20±6.0	0.006 [b]	32.95±4.5	0.001 [b]
Village	8.10±2.9		14.80±2.5		23.70±6.9		30.90±4.3	
Employment status								
Employee	8.83±3.2		2.4±16.13		6.7±22.08		5.2±33.30	
Self-employee	2.7±7.05		2.9±14.80		6.1±21.89		4.7±32.40	
Worker	3.6±7.64		1.5±15.11		6.4±25.67	0.144 [a]	4.2±30.67	
Non-employee	7.64±2.7		2.5±15.07		5.9±24.14		5.0±31.43	
Housewife	2.6±8.63	0.001 [a]	2.0±14.98	0.181 [a]	7.4±22.88		3.5±31.69	0.635 [a]
Student	2.3±6.57		2.3±15.31		5.1±20.09		4.8±32.6	
Age gap between couples								
1-3year	3.02±8.04		2.6±15.40		6.07±22.29		4.6±32.48	
4-6year	3.01±7.94	0.089 [a]	2.2±16.15	0.740 [a]	6.8±23.42	0.004 [a]	4.5±32.11	0.603 [a]
>7 year	2.2±6.67		2.7±15.00		5.3±19.17		4.2±31.42	
Smoking history								
Yes	1.7±7.67	0.890 [b]	2.8±16.42	0.080 [b]	6.4±17.25	0.007 [b]	4.2±34.67	0.050 [b]
No	2.9±7.78		2.4±15.14		6.4±22.47		4.5±32.01	
Ethnicity								
Fars	2.7±7.51		2.8±15.56		6.3±21.64		3.7±33.12	
Kurd	3.3±7.93		2.8±15.00	0.380[a]	6.2±23.02		4.8±31.10	
Turk	2.7±8.32	0.060[a]	2.4±14.48		7.1±22.71	0.570[a]	5.8±30.58	0.006[a]
Tat	0.57±9.33		1.5±13.33		0.5±21.33		8.1±31.00	

Note: a. Test of significance based on the one-way ANOVA and b. independent T-test

Discussion

This study aimed to investigate the beliefs related to sexual health among newly married couples using the Health Belief Model. The findings showed that the couples had a relatively good general awareness of sexual health. Most participants had high levels of perceived susceptibility and perceived benefits, but moderate perceived severity and significant perceived barriers. Cues to action were mostly derived from informal sources such as friends and the internet.

The studied couples had a relatively good awareness of sexual health. Still, among the knowledge questions, it was observed that the couples' awareness of the level of sexual desire and the effect of various diseases on the reduction of sexual desire is low. These findings were consistent with those of Barati et al. (2014) in Hamadan, where couples had relatively good awareness of sexual health issues (14) This similarity may be the same as both studies used the same tools.

In study conducted by Bostani et al. (2017) qualitative study among couples, the participants emphasized the need to improve their sexual awareness by stating that they do not have enough awareness about sexual health (17).This disparity can be due to the difference in the cultural characteristics of the studied society and the nature of the type of study. However, our findings were inconsistent with Makinde et al.(2020) study on Nigerian married women, which showed that the respondents had poor awareness of sexual health (16) This difference can be attributed to the different measurement tools and also the difference in cultural, economic, and social levels between the two countries.

According to the findings, the perceived susceptibility towards sexual health among the couples had a high average, and the participants believed that sexual issues could significantly affect their lives.

Similar to our results, the findings reported by Aslani et al. (2016) showed that students had a

high sensitivity to vulnerability to risky sexual behavior (15). In explaining this finding, it can be said that the high level of awareness in these studies can be the reason for the high perceived susceptibility of people toward sexual health.

Contrary to the results our study, Barati et al. (2014)(14) and Kabodi et al. (2014)(18) showed that couples' beliefs regarding vulnerability are not optimal. Only a limited percentage of couples consider sexual health important and know it is effective in their lives. The difference between these studies can be attributed to the abstractness of the concept of sexual health and perceived sensitivity in different cultures and societies.

Based on previous studies, improving people's sensitivity prevents them from engaging in risky sexual behaviors (19-20). In the present study, the high level of perceived susceptibility can be a strong point for creating desirable preventive behaviors in the studied population.

Regarding perceived severity, the study's findings have shown that the couples participating in the survey obtained more than half of the maximum attainable score, indicating a relatively favorable situation in the couple's beliefs. The findings of the present study are consistent with those of Kabodi et al. (2014), which indicate that couples who seek marriage counseling center assistance hold suboptimal beliefs regarding the significance and hazard of the complications resulting from unhealthy sexual behaviors and the potential for their susceptibility to such complications (18). The reason for the similarity of the results of these two studies is that the target groups are almost similar in terms of their being on the threshold of marriage because they have not yet experienced a married life and have not understood the severity of the dangers of unhealthy sexual behaviors. The undesirability of the perceived intensity can be a warning for the health and treatment system. Of course, until a couple is unaware of the risks involved in engaging in high-risk sexual behavior, they will not take steps to correct it. Therefore, it is necessary to design promotional interventions to increase the understanding of couples before marriage to prevent unhealthy sexual behaviors.

Regarding perceived benefits, it has been shown that the participants in this study strongly believed in the advantages of having good sexual relationships. In the meantime, the thought that they could achieve more intimacy and peace in their lives was the most prevalent. One of the stable pillars of married life is having a healthy sexual relationship. Any disruption in this relationship destroys the foundations of married life, and having sexual awareness makes couples' relationships more intimate, reducing marital problems and increasing marital satisfaction (21). Aslani et al. (2016) found that participants understood the benefits of sexual health and believed that they had a high ability to observe reproductive and sexual health (15). In this context, studies conducted by Xu et al (2017) in China (22) and Syarifah (2018) in Indonesia (23) have demonstrated that efforts to promote higher levels of safe sexual behavior might be sparked by the perceived advantages of doing so. The favorable awareness of the participants of this study can influence the high level of perceived benefits.

Perceived barriers among the studied subjects accounted for almost half the average score. The biggest obstacles perceived by the participants of the studied population were the disclosure of family secrets when asking private questions and the shame of pregnancy before marriage, which can be due to the wrong attitude and taboo of sexual issues in society.

Similar to the present study, perceived barriers was reported by Kabodi et al. (2014)(18) and Barati et al. (2014) (14) as the biggest obstacle perceived by couples. Also, a qualitative survey by Mirzaei Najmabadi (2019) identified sociocultural taboos as the main obstacles for young people to have healthy sexual behavior (24). According to the study conducted by Demari et al. (2021), the reluctance to discuss sexual matters in Iranian society and the absence of sexual health education, particularly in educational institutions, have been identified as barriers to promoting sexual health education and public awareness in this domain. They advocated for a progressive normalization of sexual concerns in society (25). Syarifah et al. (2018) in Indonesia (23) and Kim et al. (2017) (26) in Africa have also mentioned stigma as an obstacle to the use of health care in sexual relations.

The results of the above studies consider the necessity of social interventions for the culturalization of healthy sexual behaviors in these societies, and there is also a need for educational and promotion interventions to facilitate these necessary obstacles.

The status of cues to action related to sexual health is below average, which means that there are acceptable cues to action for couples in the field of healthy sexual relations. Couples report that the internet and friends are the most common cues to action.

In contrast to the current study, a Chinese survey by Setyaningsih et al. (2022) showed that teens know much about fertility and sexual health. Family is their primary information source, whereas friends and the internet are said to provide them with less information (27). The tiny age groups of the Chinese participants under study and the variations in family sexual education across the two societies may be the cause of this discrepancy.

Consistent with the current study, the internet and friends in the study of Kabodi et al. (2014) and Aslani et al. (2016) in Iran are also mentioned as the most important practical guides for sexual health awareness (15, 18). In the above studies, the role of the internet as a source of information can be both an opportunity and a threat. Improper use of the internet and not having sufficient media literacy largely expose young people to risky sexual behaviors, resulting in negative effects on their sexual behavior. Therefore, planning and measures are necessary to increase the media literacy of young people in recognizing correct sexual information on the internet.

Friends are another important source of practical guidance regarding the sexual health of young people. Considering the important role of friends and peers in the formation of sexual relations before marriage among young people, providing comprehensive educational programs about sexually transmitted diseases, such as HIV, and the protection of sexual health with peer education is necessary (28).

According to this study, younger age groups perceive more obstacles to engaging in sexually healthy activity. However, they also seem to recognize the advantages of physically healthy behavior.

These results demonstrate that, among younger age groups, the perceived advantages of engaging in healthy sexual behavior outweigh the perceived obstacles, hence impeding the adoption of sexual promotion practices within Iranian culture. Because of this, it's important to start educating young people about sexual health at an early age, especially in formal education and within the framework of curricula.

Couples with low education are reported to have less perceived severity and benefits than those with higher education. These findings align with Kabodi et al. (2014) findings (18). High education can raise awareness and provide the basis for healthy behaviors.

Couples who reside in rural areas perceive a greater number of obstacles. In contrast, those who reside in the city perceive more advantages than those who reside in the village. These findings aligned with the study of Kabodi et al. (2014) (18). This difference can be attributed to the difference between the cultural context of the village and the city and the question of the burial and confidentiality of sexual information that arose again.

The present study had some limitations, such as the reluctance of some couples who referred to the counseling center to participate in the study due to the sensitivity of the subject, and the lack of enough time which caused a decrease in the response rate of participants. Also, because this study was conducted in a town, it cannot have much generalizability, so it is hoped that ways to overcome these limitations will be found in the future studies.

It is suggested that future studies use the models of health education and health promotion to identify the factors affecting the sexual health behaviors of young people. In addition, the design of educational interventions at younger ages based on peer education and the internet can lead to improved results in the sexual health of young people and teenagers.

Conclusion

In general, the results of the study showed that the studied couples had relatively favorable levels of awareness in the field of sexual health, relatively favorable perceived susceptibility, and moderate perceived severity regarding the consequences of unhealthy sexual behaviors.

The perceived benefits of couples' sexual behavior were reported to be high. Couples perceived the taboo and confidentiality of sexual health information as the most important barriers. Regarding information about sexual health, the internet and friends were reported as the most important sources used by couples. These results highlight the need for health promotion interventions emphasizing gradual culture-building solutions to remove societal taboos and negative attitudes.

This study provided an opportunity to expand background information regarding couples' beliefs about sexual health. Using this information, interventions can be designed and implemented to improve the sexual health of newly married couples.

Declerations

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Conflicts of interest

The authors declared no conflicts of interest.

Ethical considerations

The present study was conducted under the supervision of the Research Ethics Unit of Student Research Committee, Esfarayen Faculty of Medical Sciences, Esfrayen, Iran. This study was performed according to the Declaration of Helsinki. All participants gave their informed consent before their inclusion in the study. The interviewers explained the purpose of the research to the couples and asked them to refrain from writing their names. In addition, the couples were assured that all the questionnaires would be collected in one place for statistical analysis while maintaining confidentiality. If the couples did not want to complete the questionnaire, they had the right to withdraw from the study.

Code of Ethics

IR.ESFARAYENUMS.REC.1400.019.

Use of Artificial Intelligence (AI)

Artificial intelligence tools, specifically OpenAI's ChatGPT, were utilized in the preparation of this manuscript. The AI assisted the authors with English translation, linguistic editing, and improvement of academic writing. All content was thoroughly reviewed and approved by the authors to ensure accuracy and compliance with ethical standards.

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Authors' contribution

The authors confirm that all persons designated as authors qualify for authorship and have verified the article for plagiarism. RP and AS conceived and designed the study, conducted research, and provided research materials. MA and AS collected and organized data. HRSH analyzed and interpreted data. RP wrote the initial and final drafts of the article. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

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