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The Development and Validation of Sexual Health Education Needs Assessment Questionnaire of Iranian Engaged Couples

Masoumeh Simbar [1], Zahra Bostani Khalesi [2] ✉, Seyed Ali Azin [3]

[1]Department of Midwifery and Reproductive Health Research Center, School of Nursing and Midwifery, Shahid Beheshti University of Medical Science, Tehran, Iran.
[2]Department of Midwifery, School of Nursing and midwifery, Guilan University of Medical Science, Rasht, Iran
[3]Reproductive Biotechnology Research Center, Avicenna Research Institute (ACECR), Tehran, Iran

Abstract

Background: Knowledge about sexual health is one of the basic needs of young couples. The present study aimed to develop and validate the Sexual Health Education Needs Assessment Questionnaire (SHENAQ). **Materials and Methods:** This study was a sequential exploratory mixed method. In the qualitative phase, In-depth interviews were conducted with 38 engaged and married men and women and 9 key informants. After a literature review, in the quantitative phase, validity properties of the SHENAQ were assessed. **Results:** Sexual health education needs consists of 4 themes "Suitable content for education ","Characteristics of competent educators", "Appropriate technologies in education" and" Educational convenient features". The content validity ratio (CVR) and content validity index (CVI) of the instrument were 0.91 and0.83 respectively. SHENAQ was designed with 46 items. The instrument's internal consistency was confirmed by alpha coefficient 0.863 and stability assessment through the test-retest was 0.824. **Conclusion:** SHENAQ is culturally sensitive with satisfactory validity and reliability and could be used to increase the effectiveness of premarital education.
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Keywords: Education; Sex; Needs Assessments

Introduction

One of the essential needs of the young people is to assess the knowledge about sexual health [1]. Sexual health is a vital and integral part of your overall health and well-being throughout your life and is not just the absence of disease or dysfunction[2]. It is an important part of physical and emotional health that requires a positive approach to sexuality and sexual relationships, as well as the possibility of having enjoyable and harmless sexual experiences, freedom from fear, shame, guilt, false beliefs, and other psychological factors that inhibit sexual response and impair sexual relationships [3]. In order for young people to behave responsibly when it comes to decisions about their sexual health, society has the responsibility to provide youth with accurate, age-appropriate sexual health education; access to services to prevent pregnancy and sexually transmitted diseases [4].

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Tel/Fax: +98 71 36474503
PO Box 7193616563
Email:info@gmj.ir

✉ **Correspondence to:**
Zahra Bostani Khalesi, Department of Midwifery, School of Nursing and midwifery, Guilan University of Medical Science, Rasht, Iran
Telephone Number: +981333555056
Email Address : z_bostani@yahoo.com

Teaching sexual health education in premarital classes is crucial to preparing young people to safeguard their sexual health throughout their lives [5]. Young people are at significant risk of unintended pregnancies and sexually transmitted diseases (STDs). In many countries, sexual health education is instruction that takes place in a school [6]. But there is no sexual health education in Iranian schools [7]. In Iran, because of cultural sensitivity of sexuality issues, premarital education classes are the only formal opportunity for presenting sexual education [8]. However, it is frequently reported that teaching sexual health has been very often poor in premarital classes, which is associated with educator's shame [9], lack of information, and poor education techniques [10]. Furthermore, current content for premarital education is not enough [11]. There is a need to address how premarital education can effectively encourage engaged couples to choose healthy sexual lifestyle [12]. On the other hand, the first step of the planning, comprehensive young people's health program is health needs assessment [13]. Sexual health education needs assessment (SHENA) may help to identify what level of support they will need from policy makers in the development and delivery of their policies. An education needs assessment of sexual health to evaluation such as asking for engaging couples' opinions provides information with respect to which strategies should be adopted [14]. In Iran, cultural factor has a significant impact on the presentation of sexual problem [7]. To the authors' knowledge, only a small number of studies have been conducted that specifically focus on the sexual health needs and there is not any valid and reliable questionnaire to measure sexual health education needs. While A sexual health education needs assessment questionnaire can be used to identify sexual health education needs of young people, design appropriate interventions, and investigate their effectiveness [9]. So, for the first time, we conducted a sequential exploratory mixed method study in Iran with the aim to design and validate the sexual health education needs assessment questionnaire by obtaining the perspectives and experiences of engaged and married men, women, and key informants.

Materials and Methods

This study was a sequential exploratory mixed method (qualitative and quantitative) that took place between November 2014 and December 2015 and was conducted in Rasht, Iran.

Questionnaire Design

The first phase was an exploratory study to define the concept and dimensions of sexual health education needs. The studied sample consisted of 38 engaged and married men and women and 9 key informants. These samples were selected using the purposeful sampling method with maximum variation sampling. The participants were engaged men and women who had been referred to health centers to get pre-marriage counseling classes and married men and women to get primary health care with maximum variety of factors, such as age, education, socioeconomic status, and place of residence (urban and rural). The inclusion criteria were fluent in the Persian language, engaged or married, no chronic diseases or mental illnesses, and agreeing to participate in the study. Data collection was conducted using semi-structured, in depth interviews. Because of the depth and flexibility in qualitative studies, semi-structured interviews were used for data collection. The interview guide contained elementary questions and was developed by researchers, and its validity was confirmed by the expert researchers in the field of sexual health. In order to protect the rights of the participants, the research team explained the purpose of the study, assured participants that their information would be private and confidential, and explained that participants could withdraw from the study at any time. All participants who participated in the study signed written informed consent forms. The volunteers were taken to a private room (in the health center provider's pre-marriage counseling room in Rasht) for a full explanation of the project, and, if the participant agreed and completed the consent form, the interview began. Data collectors were placed in two male–female groups. The male interviewer was allocated to male participants, and the female interviewer was assigned to the female participants. The interviews were conduct-

ed face-to-face and in the appropriate places. The interviews began with a general question, i.e., "Could you please talk about your understanding about the concept of sexual health?" The major focus of the questions was "what do you think about sexual health? Would you please explain your education needs about sexual health? What does sexual health, education needs mean to you? Interview guide questions were developed by reviewing the related literature and counseling with Iranian experts and was revised following a few pilot interviews. The next questions were asked based on the participants' experiences in order to achieve additional information about sexual health promotion interventions. The interviews were recorded using a digital voice recorder (Sony ICD PX333 Digital Voice Recorder). Each interview lasted between 45 and 60 minutes. Data collection was continued until data saturation was reached, i.e., the new data entered into the study did not create new themes or change the existing themes. After each interview, it was transcribed immediately verbatim. For immersion in the data, the interview transcription was reviewed several times. The Graneheim and Lundman approach was used in the conventional content analysis [15]. The analysis began by transcribing all the interviews and then determining the analysis unit, the meaning aunt, summarizing the meaning units, determining primary codes, categorizing similar primary codes in more comprehensive categories, and determining themes. First, the interviews were transcribed verbatim and typed immediately after each interview. To detect the meaning unit, each interview was read and reviewed. All words, sentences, and paragraphs determined as the meaning unit. Then, the meaning units were reviewed several times and were coded based on the conceptual and meaning units. After extracting the original codes, similar codes were integrated and categorized based on their similarities. The categories and subcategories were compared, and the themes were determined by analyzing and interpreting these categories and subcategories. MAXqda2011 software was used to classify the transcribed data. In this study, we used the Lincoln and Guba [16] criteria to ensure rigor and trustworthiness. The criteria included credibility, dependability, confirmability, and transferability. The credibility of data was enhanced by using member check, long engagement with the participants, and data immersion, using participants' opinions to confirm the extracted codes and categories, and having maximum variation sampling in terms of age, education, occupation, and location (rural /urban). Transferability of the data was determined by reviewing the findings by the participants who met the inclusion criteria but did not participate in the research, and they confirmed the fitness of the results. For enhancing the dependability, the extracted codes and categories were reviewed by two researchers who were experts in qualitative research and who supervised all of the research phases. To improve the confirmability of the findings, the views of experienced researchers in the field of sexual health, who were not on the research team, were used at all stages of the process, such as data sampling, collection, analysis, and interpretation. To complete the concept and dimensions of sexual health education needs an extensive review of the related literature was performed in Science Direct, PubMed (including Medline), and Google Scholar, and some Persian databases including Irandoc, and Medlib. The keywords used for the search were the following: "Sexual Health", "Education needs", "Engaged Couples", "Premarital education" and "Preparation for marriage". This search encompassed articles and questionnaires related to sexual health, education needs, and premarital education.

Ethical Issues

The Ethics Committee at Shahid Beheshti University of Medical Sciences approved the study (Approval No. SBMU2.REC.1394.130). A written consent acquired from the participant for cooperation in this study and publish these data. The participants were informed that they could discontinue the interviews at any time for any reason. The interviews were stopped based on participants' willingness and emotional situation and continued when they felt it appropriate to do so. All of the interviews were performed in a private room ensure the confidentiality of the information that was provided.

Statistical Analysis

The Cronbach alpha coefficient, and intracluster correlation index were used for data analysis using SPSS, version 21. A summary of the development and validation of SHENAQ is presented in Figure-1.

Results

Questionnaire Design

The study participants in the qualitative phase consisted of 23 women between the ages of 17 and 46 and 15 men between the ages of 23 and 35 (Table-1). Analyzing participants' perspectives and experiences and the literature review revealed four themes "Suitable content for education", "Characteristics of competent educators", "Appropriate technologies in education" and "educational convenient features". In this study, suitable content for sexual education includes: components and performance of the reproductive tract, psychological characteristics of men and women, sexual myths that need to be modified, factors influencing sexual satisfaction, sexually healthy behaviors, ways to prevent the monotonous routine of the sex, common sexual problems, masturbation and its complications, adverse effects of smoking, alcohol and psychotropic substances on sexual performance, High-risk behavior, sexually transmitted infections, symptoms and ways to prevent, family planning decision-making, sex skills, ability to focus on the relationship, negotiation skills between couples, commitment and responsibility in sexual life, The importance of sexual health for the individual and society, skills to make sexual abstinence, religious issues in sex and internet's impact and sex videos on relationships. Also characteristics of competent educators can be defined as follows: understand the values of participants, respect and non-discrimination between participants, positive attitude to sexuality education, scientific and verbal skills, mutual understanding and confidence-building. The order of appropriate technologies in sexual education was access to valid and appropriate educational resources, educational software, slideshow, educational assistance models, educational resources, training with debate and separately training for each couple. Educational convenient features includes: comfort and sense of security, privacy and quiet, access in terms of geographical location, light and ventilation classroom, comfortable seats and Time training. Extracted codes were used to make the preliminary questionnaire with 112 statements. Then, similar statements were omitted or changed using internal expert panel, resulting in a questionnaire with 65 statements.

Assessing the Validity and Reliability

In quantitative validity assessment, CVR and CVI turned out to be 0.91 and 0.83, respectively. Finally, at the end of the content validity and face validity process, our instrument was prepared with four dimensions and 46 items (Annex-1) for the next steps and doing the reliability. Cronbach alpha coefficient which assessed internal consistency of SHENAQ was r = 0.863. The intracluster correlation coefficient calculated to assess stability of SHENAQ was 0.824 (P-value< 0.01) (Table-2).

Questionnaire Scoring Procedures

The range of scores for the whole questionnaire and its subscales are presented in (Table-3). The total score of the SHENAQ and its subscales can be calculated and presented as percentages. The range of scores is from 46 (0%) to 230 (100%) describing sexual health education needs of Iranian engaged couples. The study was performed on Persian version of SHENAQ and the English version that translated and added as a supplementary should be evaluated in another study. Also, the validity of English version of SHENAQ should be reconsidered by specialists again.

Discussion

This study was able to develop a reliable and valid SHENAQ to measure the sexual health education needs of Iranian engaged couples. The conceptual framework for the study was the concept of sexual health education needs which were obtained from in-depth interviews with engaged and married men and women couples and key informants as well as from a wide review of relevant literature.

SHENAQ was developed based on engaged couples' and key informants' own definitions and explanations about the concept of sexual health education needs, which stems from their own culture, and it is necessary for the development of SHENAQ appropriate to the target population. SHENAQ is demonstrated that sexual health education needs of Iranian engaged couples include: "Suitable content for education", "Characteristics of competent educators", "Appropriate technologies in education" and "educational convenient features". The use of SHENAQ, which can be completed in 10 to 15 minutes and uses simple language and terms that are understandable to the couples, could be an initial important step to identifying Iranian engaged couples' sexual health education needs. Identifying needs are an important in order to direct health services, prioritization in health promotion programs and resource allocation [13]. Researchers, sexual health educators, policy makers, and demand for improved and relevant instrument to evaluate the sexual health education program, and this questionnaire can help them to conduct such research. Since no study was found aiming to design and assessment of an instrument to measure sexual health education needs of engaged couples, the present findings are compared with those of similar instruments. Shahhosseini *et al*. [23] conducted a mixed method exploratory study to investigate of the health needs of Iranian female adolescents in Sari. After conducting focus group discussions with teenagers and semi-structure in-depth interviews with key informants and literature review, a questionnaire was developed with 23 items. Zare *et al*. [24], using mixed method exploratory research, to investigate sexual and reproductive health needs among male adolescents in Tehran. To collect data Focused group discussion, semi structured and deep interviews were applied. It led to a questionnaire with 49 items. Questionnaire validation is an expensive and time-consuming process [25]. Content validity of SHENAQ was assessed by the faculty members of Iranian universities. Content validity assessment of questionnaires by experts is one of the best ways to develop an evidenced based questionnaire with appropriate content [25] and many other studies have used content validity assessment by experts to confirm their developed questionnaires [26]. The face validity of the SHENAQ was ensured through eliciting the ideas of 20 engaged men and women. Shahhosseini *et al*. evaluated the face and content validity of their questionnaire through eliciting the opinion of 15 specialists [23]. Likewise, Zare *et al*. evaluated face validity with the help of 10 male adolescents [24]. Test-retest reliability was suitable, in spite of the heterogeneity and a reasonable test-retest interval [25]. In the process of reliability assessment, this study obtained a Cronbach's of 0.863 for internal consistency and a correlation coefficient of 0.824 for stability through the test–retest method with a 2-week interval. In Shahhosseini *et al*.'s study, the reliability was assessed through the test–retest. They reported a correlation coefficient of 0.984 for the test–retest methods [23]. The result of internal consistency assessment through Cronbach's was 0.79 of the instrument in the Zare *et al*.'s study [24]. This study was able to develop a reliable and valid SHENAQ to measure the sexual health education needs of engaged couples. However, this result must be interpreted with considerations as it is not free from the limitations. First, the participants were selected from only one city (Rasht in the north of the country), which may not reflect the diversity of the participants for the proposed study. Second, the data were collected through interview, which sexual schemas within a population could be different, even from one city to another.

Conclusions

SHENAQ is an innovation in the Islamic Republic of Iran as it is the first local, culturally-sensitive inventory developed to assess the sexual health education needs of engaged couples for which its validity properties were evaluated. This research article describes that SHENAQ is a valid and reliable instrument for doing this. There are also chances that the content of the instrument may discriminate engaged couples, especially those who know about sexual health and those who don't know

about it. Hence, it is strongly advised to consider the social and cultural circumstances before it can be used either in Iran or in other countries.

Acknowledgment

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Conflict of Interest

The authors declare no conflicts of interest and have approved the final article.

Table-1. Demographic Characteristics of Participants in the In-Depth Interviews

Variable		Male (N=15) n(%)	Female (N=23) n(%)
Mean age (years)		31.3	28.6
Education	Primary or Secondary School Education	2 (13.3)	1 (4.3)
	High School	1 (6.7)	3 (13)
	High School Diploma	4 (26.7)	9 (39.2)
	Above	8 (53.3)	10 (43.5)
Employment status	Householder or Unemployed	2 (13.3)	15 (65.2)
	Government Employee	8 (53.3)	7 (30.5)
	Self Employed	5 (33.3)	1 (4.3)
Residency	Urban	9 (4.3)	15 (65.2)
	Rural	6 (40)	8 (34.8)

Table-2. Cronbach Alpha Coefficient and Interclass Correlation Coefficient of SHENAQ and the Subscales

Factor	Cronbach's alpha coefficients	The intracluster correlation coefficient
SHENAQ	0.863	0.824
Suitable content for education	0.841	0.912
Characteristics of competent educators	0.724	0.861
Appropriate technologies in education	0.825	0.813
Educational convenient features	0.732	0.968

Table-3. The SHENAQ and the Subscales Scoring Range

Subscales	Range of scores
Suitable content for education	21-105
Characteristics of competent educators	7-35
Appropriate technologies in education	8-40
Educational convenient features	10-50
SHENAQ	46-230

Annex-1. The SHENAQ at the End of the Validity and Reliability Assessment

Statements	Not at all	A little	Some	Much	Very much
How much sexual health educational content of the following do you need?					
1. Components of the reproductive tract					
2. Performance of the sexual organs					
3. Psychological Characteristics of Men and Women					
4. Sexual myths that need to be modified					
5. Factors influencing sexual satisfaction					
6. Sexually Healthy Behaviors					
7. Ways to prevent the monotonous routine of the sex					
8. Common sexual problems					
9. Masturbation and its complications					
10. adverse effects of smoking, alcohol and psychotropic substances on sexual performance					
11. High-risk behavior					
12. Sexually transmitted infections, symptoms and ways to prevent					
13. Family planning decision-making					
14. Sex skills					
15. Ability to focus on the relationship					
16. Negotiation skills between couples					
17. Commitment and responsibility in sexual life					
18. The importance of sexual health education needs assessment					
19. skills to make sexual abstinence					
20. Religious issues in sex					
21. Internet's impact and sex videos on relationships					
How much do you know the following features are essential to trainers?					
22. understand the values and beliefs of participants					
23. Respect for participant					
24. Non-discrimination between participants					
25. Positive attitude to sexuality education					
26. Scientific skills					
27. Verbal skills					
28. Mutual understanding and confidence-building					
How much do you know about the proper use of the following technologies for training?					
29. valid and understandable educational resources					
30. Access to appropriate educational resources					
31. Videos					
32. Educational software					
33. Slideshow					
34. Educational assistance models					
35. Training with debate					
36. Separately training for each couple					
How much do you know proper the following spatial and temporal features for sexual health education?					
37. Comfort and sense of security					
38. Privacy and quiet					

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continue of Annex-1. The SHENAQ at the End of the Validity and Reliability Assessment

39. Access in terms of geographical location					
40. Classrooms light					
41. Classrooms ventilation					
42. Comfortable seats with handles					
43. Fewer than one hour per session of training					
44. More than one session					
45. The right to choose time to attend classes for couples					
46. Continuing education after marriage					

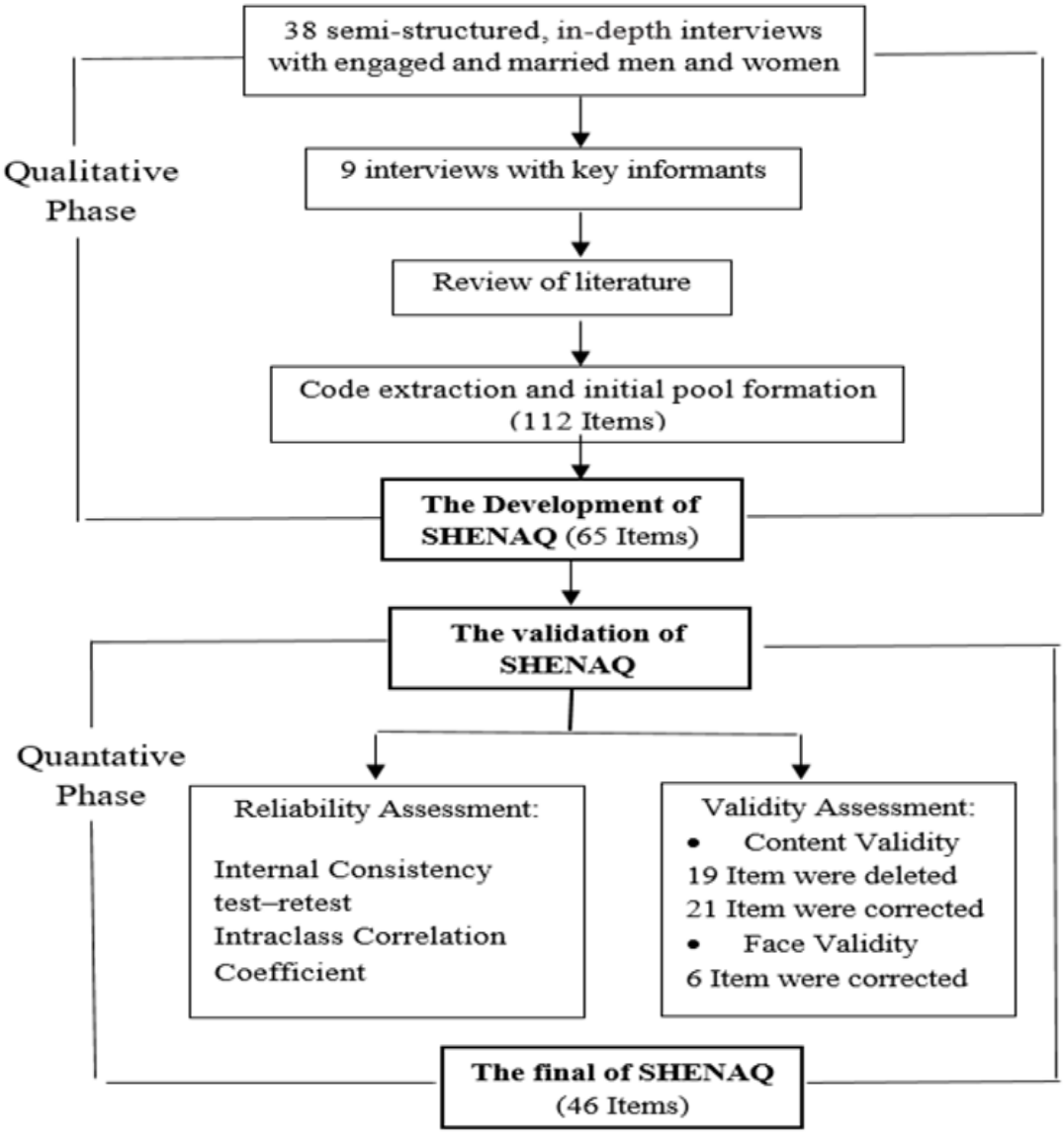

Figure-1: A summary of the development and validation of SHENAQ

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