Original Article

Development and psychometric properties of a questionnaire to assess the Iranian women's sexual self-efficacy

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ABSTRACT

Background & Aim: It is necessary to have a valid, reliable, and socio-cultural appropriate questionnaire for evaluation of women's sexual self-efficacy. Therefore, the objective of the study was the development and psychometric evaluation of the context-based questionnaire for women's sexual self-efficacy.

Methods & Materials: The study was conducted during two phases on clients visiting the healthcare centers of Tehran University of medical sciences in 2018. In the first phase, Iranian women' sexual self-efficacy, and its dimensions were explored through thematic analysis, and it was compiled in 24 items by the deductive-inductive method. In the second phase, the psychometric properties of the questionnaire were tested using face, content, construct, and criterion validity and reliability of the questionnaire was assessed by the intraclass correlation coefficient.

Results: Iranian women's sexual self-efficacy was defined as "women' ability to make sexual relationship which leads to mutual orgasm or sexual satisfaction." Sexual relationship, the proper level of sexual self-expression, women's ability in the management of her and husband's sexual response cycle and having the necessary skills to make a delightful sexual relationship were explored as the dimensions of definition of women's sexual self-efficacy. Questionnaires were prepared with 24 items. The content validity index and content validity ratio (CVI and CVR) were found as 0.92 and 0.84, respectively. The results of qualitative and quantitative face validity and criterion validity were acceptable. Construct validity through exploratory factor analysis led to identifying four factors explained 66.68% of the variance. The items of the questionnaire were reduced from 24 to 21 after construct validity. The results of Cronbach's alpha coefficient (0.94) and ICC (0.50) supported the acceptable stability of the questionnaire.

Conclusion: The psychometric properties of developed sexual self-efficacy questionnaire-women (SSEQ-W) has good validity and reliability. Therefore, it can be used as a useful tool in future studies.

Introduction

Sexual self-efficacy is a multidimensional concept, and it refers to being capable and efficient in sexual function and making a desirable and satisfactory sexual relationship (1). The sexual self-efficacy concept is derived from Albert Bandura's self-efficacy theory.

Therefore, it can be said that sexual self-efficacy is a belief which everyone has about his/her ability in effective sexual function and to be desired for his/ her sexual partner. This belief is a kind of self-assessment of ability and efficacy in sexual behavior (2). Studies indicate that high sexual self-efficacy is associated with more sexual compatibility and more sexual activities. On the other side, low self-efficacy has a negative effect on sexual function, and it relates to emergence of high-

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risk sexual behaviors. Furthermore, improvement in the level of sexual self-efficacy can be a solution to prevent sexual disorders (3). Reissing et al. (2005), and Ramasoota and Powwattana (2008) demonstrated in their studies that sexual disorders could be eliminated, especially in women, through improvement in the level of sexual self-efficacy (4, 5).

On the other hand, desirable sexual function is associated with a higher understanding of sexual self-efficacy (6). Therefore, high sexual self-efficacy can predict a desirable sexual function (7). Studies indicate that there is a relationship between undesirable sexual self-efficacy and the level of stress in sexual activity and the emergence of disorder in sexual function (8, 9). Therefore, the evaluation of the level of sexual self-efficacy and its change level assessment as one of effective factor in the emergence of sexual disorders seem to be necessary (8). On the other hand, sexual disorders in women are reported more than men. According to a study, approximately 40-50% of women, regardless of their ages, have at least one sign of sexual disorder (10). Based on the results of a review study, functional sexual disorders have been reported from 13.3% to 79.3% in women (11). Although there are no accurate statistics from Iranian women's sexual functional disorders, the results of studies indicate a significant prevalence of the disorder in Iranian women population (12, 13). According to the results of a structured and meta-analysis review, the total prevalence of functional sexual disorders in Iranian women was 43.9 percent (14).

Differences in women's sexual response cycle compared to men indicate that the women's sexual self-efficacy concept must be studied more compared to men. According to results of Bason's study,

contrary to men, women's sexual response cycle is non-linear, and there are many stimulants such as psychological-mental-emotional factors that affect the women's sexual response cycle, especially in women who were in a sexual monogamy relationship for years. In other words, women's sexual response cycle is more complicated than men, and it is also influenced by several variables (16). Therefore, access to a desirable level of self-efficacy in women is more complicated than men. Hence, women are expected to be more aware of their sexuality as a female. They should fully be informed of the changes and factors which affect their sexual response cycle, and they must have correct sexual beliefs. The women should be able to become a sexual self-efficacy partner through having a desirable level of sexual skills ultimately (17).

A valid, reliable, and efficient questionnaire is necessary to evaluate women's sexual self- efficacy variables. So far, the researchers have done their best to develop some questionnaires for the assessment of the variable, including Bailes' Sexual Self Efficacy Scale-Female or SSES-F. The scale, according to its designers, can measure perceived competence in three dimensions of the behavioral, cognitive, and emotional sexual response of women (8). Although the questionnaire has been developed in order to assess women' sexual self-efficacy and includes some questions about the evaluation of sexual life quality, sexual satisfaction, the ability to say no in sexual and emotional relationships, but the results of the validity and reliability assessment of Persian version of the scale among Iranian female married students by Rajabi and Jelodari resulted in eliminating 9 items from 37 items of Bailes' scale. The items were eliminated because they cannot

be accepted culturally (18). The other instrument is Vaziri and Lotfi Kashani's sexual self-efficacy questionnaire, which based on Schwartz (1993) general self-efficacy questionnaire (19). The questionnaire includes ten questions. Based on Likert scale, the answers to the questions were quadruple, and it was scored 0 to 3. The minimum and maximum scores of the scale are 0 and 30, respectively.

The resultant score will be related to one of three categories of low, moderate and high sexual self-efficacy in explanation. According to the researchers, sexual self-efficacy is a belief that everyone has about his/ her ability in effective sexual function and to be desirable for his/ her sexual partner. Such belief is a kind of self-assessment of the ability and efficiency in sexual behavior (20). The questionnaire was constructed in the conceptual framework and based on scientific experiences of research team. In other words, the instrument is exclusively based on Schwartz general self-efficacy theory and data are not context-based while it is necessary to use context-based data of target population in order to develop a questionnaire for this population (21). Since there are some approaches such as translation, cultural adaption, and construction of background-based instruments, according to the experts, construction of a questionnaire is the most preferred approach in cases where the evaluated concept is affected by time, place and population background because the developed questionnaires are based on real data and studied cases (21-23). Also, a proper instrument for sexual self-efficacy assessment should include several properties such as standard psychometric evaluation, and it must be acceptable by use of quantitative and qualitative research methods. It should also be accepted by clinical specialists, experts, and editors of scientific journals (24). Therefore, regarding that sexual self-efficacy is a concept based on background, time and place of the studied population; therefore, it is necessary to have specific and proper questionnaires for the concept assessment. Therefore, the objective of the study is the development and psychometric evaluation of an Iranian questionnaire for women's sexual self-efficacy.

Methods

This study was methodological research for development and psychometric evaluation of a questionnaire. It was conducted in two phases, including items develop and evaluation of psychometric properties of the questionnaire of women's sexual self-efficacy assessment in 2018.

First Phase

In the first phase, domestic literature was reviewed for designing the questionnaire items. Since researchers focused more on sexual health issues, especially women's sexual health during recent years in Iran, therefore, domestic data related to the issue have been adequately published and developed; hence, the research team firstly decided to review the available literature to compose the initial set of items. They searched using keywords such as sexual self-efficacy, females, questionnaire, validity, reliability and the Latin equivalent of the word in some databases including Pubmed, Google scholar, Iran medex, Magiran, SID, Iran doc, Proquest, ScienceDirect, Scopus. The Persian papers from 1991 to 2018 and the English papers from 1900 to 2018 were evaluated. The searched texts were

evaluated by thematic analysis. In this phase, Braun and Clarke's six phases' thematic analysis method was used. The method includes identifying data, generating primary codes and coding, searching and recognizing themes, planning the network of themes, analyzing the network of themes, and preparing a work report (25).

Second Phase

In the phase, the psychometric properties of the questionnaire were evaluated as follows:

- Qualitative content validity: To determine the qualitative content validity, the researcher used from ten experts' opinions including a sexual behavior specialist, three reproductive health experts, an health promotion expert, a social medicine expert, psychiatrist, a psychologist, an ethics and religious science specialist, a psychometric evaluation specialist as a panel of experts on the content of items, the general structure of questionnaire, and removing or adding the items. The content and proper place of the items, the use of proper words and grammar, and proper scoring of the items are evaluated in qualitative content validity phase (26, 27). The necessary changes were applied based on the panel of experts' guidelines.

- Quantitative content validity: This was evaluated through the calculation of two factors, including content validity ratio (CVR) and content validity index (CVI). The calculation of the content validity ratio leads to the selection of the most important and the best statistical content by researcher (26). The panel of experts evaluates three criteria including simplicity, being exclusive or relevance and clarity separately in 4-point Likert scale to calculate the content validity index (27). In the phase, ten experts who conducted qualitative content validity, perform quantitative content validity too.

- Qualitative face validity: In this phase, the opinion of ten women who were qualified for entrance to the study was used in order to assess the qualitative face validity. The inclusion criteria for the samples of this phase were Iranian nationality, being female, being married, and at least having reading and writing skills.

- Quantitative face validity: The impact factor index was used to evaluate the face validity through the quantitative method. In order to assess the validity, the opinion of ten experts and end-users of the questionnaire was taken about the importance of each item in women's sexual self-efficacy concept assessment. The items with an impact factor more than 1.5 are maintained (28).

- Construct validity: Construct validity always relates to the question, "What kind of construct is assessed by the instrument?" (27). The variables which have alignment correlation summarized in the form of new variables called factor in construct validity through factor analysis method (29).

In order to assess the construct and criterion validity, the sampling was done through available sampling and among people who referred to healthcare centers of Tehran University of Medical Sciences. The inclusion criteria for the samples of this phase were similar to the qualitative face validity assessment phase. The researcher referred to sampling centers to collect data of the phase after obtaining necessary permissions. The researcher gave the demographic and women's sexual self-efficacy questionnaires and Schwartz general self-efficacy questionnaire to them

after describing the objectives of the study and filling the informed consent form. The construct validity of the study was assessed through exploratory factor analysis method and PCA method with Varimax rotation and considering factor loading more than 0.4 and eigenvalue more than 1 through the SPSS software version 22.

- Criterion validity compares the developed questionnaire as a target tool and a standard questionnaire as a criterion tool (26). In order to evaluate criterion validity, Schwartz general self-efficacy questionnaire was used in the study. This scale is adapted from Schwartz and Jerusalem self-efficacy questionnaire in 1995 (30). Najafi reported the internal consistency of general self-efficacy as acceptable and satisfactory. The internal consistency was based on Cronbach's Alpha as 0.87 for all subjects, 0.85 for males and 0.88 for females (31). The questionnaire includes ten terms that have been arranged based on the four-point Likert scale. Each person's score in the rating scale is equal to his/ her total score in all questions, and the score range of the test is 0 to 30 (31).

The reliability of a questionnaire indicates the accuracy and compatibility of the information obtained by the questionnaire. Assessing the validity of a questionnaire is an answer to the question "does the instrument measure the variable?" (32). In order to evaluate the reliability, fifteen subjects from the research unite filled developed the questionnaire for two weeks. The reliability of the questionnaire in the study was evaluated through internal consistency by Cronbach Alpha calculation and intraclass correlation or ICC.

The study approved by the organizational ethics committee of the faculty of nursing and midwifery and rehabilitation of Tehran University of medical sciences under the code of IR.TUMS.FNM.REC.1396.4275.

Results

First phase

Firstly, sexual women's self-efficacy was defined by using available domestic literature, and then, its dimensions were explained in this phase. Initial results from reviewing the literature lead to finding 55 papers in Persian, 37 papers in English and identifying two questionnaires (Persian version of Bailes women' sexual self-efficacy scale and Vaziri and Lotfi Kashani's self-efficacy questionnaire) related to the subject of the study. Twenty-four papers which were about women's sexual self-efficacy assessment or related factors were selected after assessment of the titles and the abstracts of the papers. Then, the definition of Iranian women's sexual self-efficacy presented as "the women' ability to make a sexual relationship which leads to mutual orgasm or sexual satisfaction" after full review of the literature.

Desirable relationship, proper level of sexual self-expression, women' ability in management of her and husband sexual response cycle (in fact, management of sexual response cycle is the ability to start a sexual relationship or active participation at the start of the relationship, participation in sexual activity, performing the sexual activities and ending the relationship according to woman and her husband's sexual sentiments) and having necessary skills to make a delightful sexual relationship were the dimensions of Iranian women' sexual self-efficacy which explained in this phase of the study (Table 1).

Table 1. The results from the thematic analysis in the first phase of the study

Code	Subtheme	Theme
Proper verbal communication	Desirable relationship	Women' ability to make sexual relationship leads to mutual orgasm or satisfaction
Mutual respect		
Proper behavior		
Mutual understanding		
Dare to express sexual needs	Having a proper level of sexual self-expression	
Ability to speak about sexual issues		
The power to defend sexual rights		
Starting a sexual relationship with a woman	Women' ability to manage her husband and herself sexual response cycle	
Woman's active participation if her husband starts the sexual relationship		
The power of enhancing women' sexual arousal		
The power of enhancing husband's sexual arousal		
Having an orgasm or sexual satisfaction		
The use of sexual imagination	Having the necessary skills to make a delightful sexual relationship	
The use of technics of sensational concentration		
Having verbal-sexual interaction		
Having behavioral-sexual interaction		

The set of the items was prepared in 24-items form based on the definition and explained dimensions. Response options were developed based on the 5-point Likert scale from very low to very high. Since the development was done through a deductive-inductive approach, therefore, the other questionnaires were reviewed too. However, considering the comprehensiveness of derived items and domestic features of the items, the review of available related foreign questionnaires did not add new items to the composed questionnaire.

Second Phase

- Qualitative content validity: Qualitative content validity assessment by a panel of experts led to rewriting the eight items for better understanding and more simplicity. According to experts' suggestions, six items were merged due to conceptual analogy and similarity, and two items were rewritten conceptually and added to the ability to make a satisfying, emotional and interpersonal sexual relationship. Therefore, the number of items was reduced to 23 items from 24 items.

- Quantitative content validity: The index and ratio of content validity of the developed scale were 0.92 and 0.84, respectively in quantitative content validity assessment (CVR and CVI).

- Face validity: The results of qualitative face validity assessment by research unites indicated the existence of a relationship and correspondence between items and the subject of study, correct understanding of the items by responders and unambiguity and lack of difficulty in understanding of the items. The results of the quantitative face validity assessment also indicated that the impact factor of all items was more than 1.5. Therefore, all of them were kept.

- Construct validity: Exploratory factor analysis was performed on data obtained from 230 samples. The mean and standard deviation of the participants' age was 30.48 ± 7.73, and the mean of duration marriage was equal to 9.31 ± 8.72. Most participants had a diploma (40.9%) and were housewife (72.6). Table 2 sufficiently indicates the demographic characteristics of the participants in the exploratory factor analysis phase. The mean of sexual self-efficacy score in the research population was 79.78 ± 15.51.

Table 2. The demographic properties of the research population (n=230)

Quantitative variables		Statistics	
		Mean	**SD**
Age (year)		30.48	7.73
Husband's age (year)		33.98	9.28
Duration of marriage (year)		9.31	8.72
The age of marriage (year)		20.58	5.05
The age of the first child (year)		6.82	8.50
The age of the last child (year)		3.85	5.51
Sexual self-efficacy		79.78	15.51
Rating Variables		**N**	**%**
The number of pregnancy	Zero	80	34.8
	One and two	115	50
	Three and four	30	13
	Five and more	5	2.1
The number of children	Zero	84	36.5
	One and two	115	50
	Three and four	28	12.2
	Five and more	3	1.3
Education level	Illiterate	0	0
	Elementary	16	7.0
	Middle school	21	9.1
	High school	24	10.4
	Diploma	94	40.9
	Bachelor	65	28.3
	Master	9	3.9
	Ph.D.	1	0.4
Husband's education level	Illiterate	4	1.7
	Elementary	7	3.0
	Middle school	31	13.5
	High school	26	11.1
	Diploma	96	41.7
	Bachelor	50	21.7
	Master	16	7.0
	Ph.D.	0	0
Job	Housewife	167	72.6
	office jobs	46	20
	Home jobs	17	7.4
Husband's job	Unemployed	11	4.8
	Employee	71	30.9
	Self - employment	113	49.1
	Labor	33	14.3
Parturition type	Natural Childbirth	96	41.7
	Cesarean	43	18.7
	Both of them	8	3.5
	None of them	83	36.1
Birth control method	Natural	149	64.8
	Tablet	20	8.7
	Ampule	5	2.2
	Condom	38	16.5
	Tubectomy	6	2.6
	Vasectomy	3	1.3
	IUD	9	3.9
Livelihood situation	Low	15	6.5
	Moderate	154	67.0
	High	56	24.3
	Very high	5	2.2

The status of the questions was reviewed in terms of overlap before exploratory factor analysis. The results indicated that questions one and six overlapped with questions two and nine so much (the correlation coefficient more than 0.7). Since questions two and nine

were able to measure the concept in questions one and six, therefore the research team decided to reduce the questions of the questionnaire through the elimination of the above questions as much as possible. Therefore, the questionnaire with 21 items entered to exploratory factor analysis phase with Varimax rotation.

The results of the Kaiser-Meyer-Olkin measure (KMO) indicated that sampling for exploratory factor analysis performance was sufficient (KMO = 0.934). Bartlett test with P<0.001, x^2=3060.941 indicated that the correlations between the items were significant enough for PCA.

The results of the exploratory factor analysis indicated four factors with eigenvalue more than one that explained 66.86% of the variance. The distribution of explained factors from exploratory factor analysis is shown in figure1.
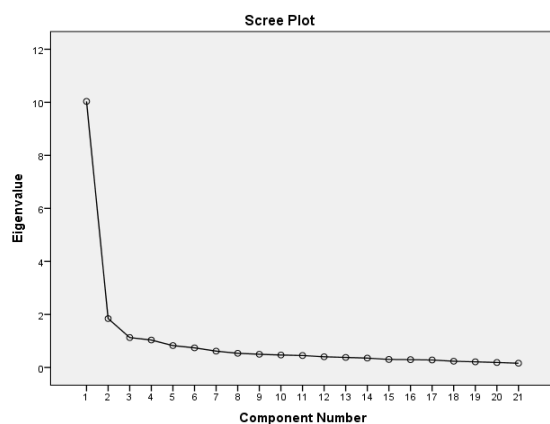

Figure1. Scree plot diagram of the distribution of identified factors in exploratory factor analysis

The identified factors in 21-item version of the questionnaire included factor 1 with 6 items (items 19, 20, 18, 22, 23 and 8), and with title of the ability to make a satisfactory, emotional and interpersonal sexual relationship, factor 2 with 6 items (items 3, 11, 16, 4, 10 and 17) with title of sexual self-expression ability, factor 3 with 4 items (items 14, 15, 13 and 12) with title of

having sexual skills and factor 4 with 5 items (items 9, 5, 2, 7 and 21) with title of sexual self-sufficiency (Table 3).

It should be noted that items 23, 21, and 8 were loaded more than one factor. They were loaded in factors 1 and 4, and items 23 and 8 were kept in factor 1 due to higher loading of the factor load and conceptual symmetry to other questions. Also, the research team decided to put item 21 in factor 4 despite its more factor load in factor 1 because of its conceptual compatibility with items of factor 4. Items 16 and 7 were loaded into two factors; factors 2 and 3, and factors 2 and 4, respectively. So the questions were put in the questionnaire considering conceptual symmetry with questions of factors that had the most factor load.

Table 4 indicates the correlation between total score and dimensions of the questionnaire and the total score of Schwartz criterion validity general self-efficacy questionnaire. The findings indicate that Pearson correlation coefficients are in the range of 0.372 to 0.492. Considering that this value is in the range of 0.3 to 0.4, it can be said that the correlation is relatively sufficient.

The results of the internal consistency of developed questionnaire small scale assessment through Cronbach's Alpha indicted a sufficient internal consistency. The alpha coefficient for the whole questionnaire was 0.94, and it was 0.87, 0.88, 0.84 and 0.81 respectively for four small scales. The results from intraclass correlation calculation also indicated overall ICC index for the instrument was 0.50, and the range of the index for four small scales was 0.54, 0.52, 0.57 and 0.57, respectively. Therefore, the questionnaire was acceptable in terms of reliability. The Questions in

developed questionnaire were scored based on a five-point Likert scale included very high=5, high=4, moderate=3, low=2, and very low=1. Each person's raw score in each field was obtained from the sum of algebraic scores of the questions of the same field. In order to calculate the total score, the scores of all fields will be summed. The higher score indicates higher sexual self-efficacy. The mean of the research population is a criterion for score interpretation.

Table 3. Results from exploratory factor analysis

No	Items	Extracted factors			
		(1) The ability to make a satisfactory, emotional and interpersonal sexual relationship	(2) The ability of sexual self-expression	(3) Having sexual skills	(4) Sexual self-efficiency
1	19. How much can you attract your husband's love?	0.823			
2	20. How much can you enjoy a romantic relationship with your husband without a sexual relationship?	0.782			
3	18. How much can you express your love to your husband?	0.773			
4	22. How much can you have a satisfying sexual relationship?	0.643			
5	23. How much can you have an intrapersonal satisfying sexual relationship?	0.606			
6	8. How much can you achieve orgasm in a sexual relationship?	0.542			
7	3. How much can you encourage your husband to make a sexual relationship, if you need it?		0.751		
8	11. How much do you express your sexual needs to your husband?		0.676		
9	16. How much do you request the cases which satisfy you in the sexual relationship of your husband?		0.646		
10	4. How much can you have sexual imaginations?		0.644		
11	10. How much can you talk about sexual issues and relationships with your husband?		0.548		
12	17. How much can you solve sexual disagreements with your husband?		0.541		
13	15. How much do you ready to make a new sexual relationship after ending a sexual relationship?			0.762	
14	14. How much can you make your sexual relationship attractive?			0.739	
15	13. How much can you use different parts of your husband's body in a sexual relationship?			0.672	
16	12. How much can you use different parts of your body in a sexual relationship?			0.544	
17	9. How much can you satisfy your husband in a sexual relationship?				0.755
18	5. How much do you think your body is desirable to make a sexual relationship?				0.641
19	2. How much do you think are ready to start a sexual relationship?				0.624
20	21. How much can you respond to your husband's request for making a sexual relationship?				0.534
21	7. How much can you keep your sexual arousal during a sexual relationship?				0.502

Table 4. The results from criterion validity assessment

Variable	The total score of women' sexual self-efficacy questionnaire	The score of the first field SSED1[3]	The score of the second field SSED2[4]	The score of the third field SSED3[5]	The score of the fourth field SSED4[6]
The score of Schwartz general self-efficacy questionnaire	r=0.492**	r= 0.472**	r=0.479**	r=0.372**	r=0.451**
P value	P<0.001	P<0.001	P<0.001	P<0.001	P<0.001

** Correlation in level 0.01 is acceptable (2-tailed)

Discussion

The results of the study indicated that the developed sexual self-efficacy questionnaire-women or SSEQ-W is a valid and reliable instrument. Cronbach's Alpha of all dimensions was higher than 0.7, and the intraclass correlation of the instrument was acceptable. Pearson correlation coefficients between total score and the questionnaire dimensions and Schwartz general self - efficacy questionnaire indicated the sufficient relative level of content validity of the instrument. Quantitative content validity indexes (CVR and CVI) were 0.92 and 0.84, respectively. The results from the construct validity of developed instrument assessment through exploratory factor analysis led to identifying four factors. The factors explained 66.86% of the variance. These four factors include the ability to make a satisfying, emotional, and interpersonal sexual relationship, the ability of sexual self-expression, having sexual skills and sexual self-sufficiency. It should be noted that the four factors from exploratory factor analysis completely conform to the first phase findings and it confirms the derived definition of sexual self-efficacy in the first phase of the study.

Review of the literature about the subject of the study indicated the limitations of women's sexual self-efficacy. Bailes women' Sexual self-efficacy scale (SSES-F) is one of the available scales (8). Although the questionnaire has been developed in order to assess women' sexual self-efficacy and includes eight subscales such as orgasm, intrapersonal sentiment/penchant, sexual arousal, personal excitement, feelings and emotions, relationships, body acceptance and refusal (8), but since the instrument is not domestic, 9 items from 37 items were eliminated due to cultural mismatch after validity and reliability assessment of Persian version (18). The questions were about single arousal and orgasm without a sexual partner (18). While SSEQ-W questionnaire is capable of assessing Iranian women's sexual self-efficacy as the marital sexual relationship, so it completely conforms to the research population. The subject also can be discussed in terms of cultural adaption process. Cultural adaption process is one of the most critical challenges in instrument translation and psychometric (33, 34). When the subject of the researcher such as the issues related to sexual health conflict with each other socially and culturally, the mentioned challenge will be more intense (35, 36). Therefore, designing a new instrument approach is preferable to translation and crediting of available instruments for such subjects (37). So SSEQ-W questionnaire conforms to Iranian women's population ideally because it is indigenous.

Furthermore, one of considerable difference between Bailes scale and the available instrument is that orgasm is the only factor which was considered in Bailes scale while sexual self-efficacy was defined as "the female ability to make sexual relationship which leads to mutual orgasm or sexual satisfaction" in the study of sexual self-efficacy. The definition is not only limited to orgasm but also it may include some sexual relationship without orgasm, which leads to sexual satisfaction. The other significant difference between these two instruments is that the psychological dimensions including penchant, intrapersonal sentiment, feelings, and emotions were considered in Bailes questionnaire more but It seems that the dimensions of the study including desirable conjugal relationships, having proper level of sexual self-express, women' ability in management of her husband and herself sexual response cycle, and having necessary skills to make a delightful sexual relationship are more efficient for actual and operational assessment of women' sexual self-efficacy concept.

Vaziri and Lotfi Kashani's self-efficacy questionnaire is another scale which developed based on Schwartz self-efficacy questionnaire (1993), (20). The instrument was developed according to Bandura general self-efficacy conceptual framework, and the items were composed based on the research team's scientific experiences (20). According to selective conceptual framework in Vaziri and Lotfi Kashani's study, it seems that sexual self-efficacy and the individual belief about her ability to confront situations involving behaviors determine the start of sexual behavior. And if it starts, how much does she try to do that and how much does she insist to start that (20) While the basis of the study was not a selective predefined

conceptual framework, but also the research team firstly reviewed the published results from previous studies on Iranian women' sexual health in order to develop a context-based instrument. Then they derived the definition and dimension of women's sexual self-efficacy from available indigenous studied in the contexts of sexual self-efficacy and the factors which affect the issue through a thematic analysis approach. They developed the complex of instrument items through the inductive-deductive approach and based on the results. Therefore, being indigenous is one of the significant features of the developed instrument in the study. Furthermore, Sexual self-efficacy concept was defined as "women' ability to make sexual relationship leads to mutual orgasm or satisfaction" in the study. Considering explained dimensions such as "desirable conjugal relationships", "having proper level of sexual self-expression", "women' ability in management of her husband and herself sexual response cycle", and "having necessary skills to make a delightful sexual relationship", it seems that SSEQ –W is a context-based instrument which is capable suitably for Iranian women' sexual self-efficacy assessment.

Although the study confirms the psychometric properties of the developed questionnaire the results are based on psychometric in the classic method, and one of the limitations in the study is that psychometric was not performed trough item response theory method. Therefore, it suggested that psychometric properties assessment of the instrument will be performed through the mentioned method in the subsequent studies. Also, similar studies must be conducted by the instrument in order to increase the generalizability of the study findings and also the explained constructs of the instrument will be assessed

trough construct validity assessment and factor analysis method. Invariability of the factors of questionnaire between different groups of responders should be assessed in the next researches.

The study can be a turning point for other researches in the contexts of women's sexual self-efficacy. Therefore, SSEQW (the developed questionnaire which includes 21 questions) is an instrument that has social-cultural adaption and also can be used in the next researches.

The mentioned questionnaire is capable of using for need assessment and women's sexual self-efficacy situation analysis so that the researchers can identify limitations and obstacles and perform their plans, policies and needed services in the contexts of women's sexual health improvement.

Acknowledgment

Conflict of Interest

The authors declare that there are no conflicts of interest in the publication of this study.

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