Published online: 2024 March 6.



## Social-Demographic Predictors of Sexual Self-concept in Women on the Verge of Marriage: A Cross-Sectional Study

Soheila Bani 🔟 <sup>1</sup>, Maryam Nematzadeh 🔟 <sup>2</sup>, Mojgan Mirghafourvand 🔟 <sup>3</sup>, Shirin Hasanpour 🔟 <sup>1,\*</sup>

<sup>1</sup> Physical Medicine and Rehabilitation Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

<sup>2</sup> Department of Midwifery, Student Research Committee, Nursing and Midwifery Faculty, Tabriz University of Medical Sciences, Tabriz, Iran

<sup>3</sup> Department of Midwifery, Social Determinants of Health Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

corresponding author: Physical Medicine and Rehabilitation Research Center, Tabriz University of Medical Sciences, Tabriz, Iran. Email: shirinhasanpoor@yahoo.com

Received 2023 December 25; Revised 2024 January 28; Accepted 2024 February 3.

#### Abstract

**Background:** A satisfying and proper sexual relationship that meets the needs of both spouses plays a crucial role in the stability and longevity of the family. Sexual self-concept is one of the factors affecting women's sexual behavior and performance and can be changed throughout life.

**Objectives:** This study aimed to determine the status of sexual self-concept and its socio-demographic predictors of women on the verge of marriage.

**Methods:** This cross-sectional study was conducted on 130 women referring to premarital counseling centers in Tabriz, Iran. The data collection tool was the questionnaire of personal and social characteristics and Snell's Multidimensional Sexual Self-Concept Questionnaire. Pearson's correlation test, one-way analysis of variance, and multivariate linear regression test were used in data analysis with SPSS software version 24.

**Results:** The mean (standard deviation) of the positive sexual self-concept score was 117 (0.20) from the obtainable score of 0 - 176, and the mean (standard deviation) of the negative sexual self-concept score was 16 (0.7) from the obtainable score of 4 - 38. Additionally, the mean (standard deviation) of the sexual self-concept score was 44 (0.9) from the range of the obtainable score of 0 - 72. The results of multivariate analysis with multivariate linear regression test and control of confounding variables showed that the husband's age, education, and mother's education were the predictors of positive sexual self-concept. Moreover, age, father's education, and duration of previous acquaintance were reported as predictors of negative sexual self-concept.

**Conclusions:** The study's findings indicated that age, education, parents' education, and the duration of acquaintance with the future spouse could predict sexual self-concept in women approaching marriage without sexual abuse. Given that sexual self-concept evolves well before any sexual activity, policymakers can enhance women's sexual self-concept through interventions, such as psychological counseling with a focus on sexual health. This, in turn, can improve their overall well-being, ultimately supporting stable family foundations and successful childbearing in the future.

Keywords: Sexual Health, Self-concept, Marriage, Women

#### 1. Background

Neglecting sexual issues and dissatisfaction can have adverse effects on individuals, including depression, anxiety, decreased self-confidence, and isolation, and can lead to problems in family and marital relationships, which might ultimately result in emotional or legal divorce (1). Therefore, sexual behavior affects the sexual satisfaction of couples and addresses their sexual needs, and sexual performance plays a significant role in the stability of marital relationships (2).

One of the factors influencing individuals' sexual behavior and functioning is their perceptions and feelings about sexual relationships and self-awareness of their sexual aspects (3). Sexual self-concept is a part of individuality or sexual identity and involves a person's understanding of their sexual orientations and desires (4). It refers to an individual's perspective on themselves as sexual beings and encompasses their thoughts and

Copyright © 2024, Modern Care Journal. This open-access article is available under the Creative Commons Attribution-NonCommercial 4.0 (CC BY-NC 4.0) International License (https://creativecommons.org/licenses/by-nc/4.0/), which allows for the copying and redistribution of the material only for noncommercial purposes, provided that the original work is properly cited.

feelings about sexual matters (5). Sexual self-concept is significantly associated with women's sexual performance, and positive and negative aspects of sexual self-concept can be considered predictive variables of women's sexual performance (6).

Females' sexual lives begin long before their first sexual intercourse, and their pre-intercourse sexual experiences play a crucial role in their sexual understanding (7). The initiation of sexual and romantic experiences in relationships, as well as the prominent growth of sexuality during adolescence, turns this period into a key phase for developing a positive sexual self-concept (8). Sexual self-concept changes over time, grows throughout life, and is influenced by and influences experiences (9). Biological, psychological, and social factors can all influence sexual selfperception (10). Various studies have shown that factors such as age (9), gender (11), race (12), marital status (13), sexually transmitted infections (14), and social factors (15) can impact different aspects of sexual selfperception. Potki (2017) (16) categorized the factors affecting sexual self-concept into biological, psychological, and social factors in their systematic study. A history of sexual abuse during childhood might affect the development of a positive sexual self-concept and put individuals at high risk of sexual disorders. Sexual interaction with coercion and abuse can cause negative emotions, such as guilt, shame, anger, sadness, and despair (17).

Women with positive sexual self-concept have higher levels of sexual response and experience increased sexual satisfaction, marital satisfaction, marital compatibility, sexual self-esteem, sexual self-image, sexual self-efficacy, sexual consciousness, sexual selfblame, and better sexual problem management. Nevertheless, women with negative sexual selfperception experience undesirable sexual performance, sexual problems, sexual anxiety, sexual fear, and sexual depression, making them less likely to cope with sexual problems and engage in sexual activities (18).

Sexual self-concept and its determinants can be essential in planning for the physical, emotional, and psychological well-being of individuals. Previous studies have been conducted in the field of sexual self-concept in married women, and no study was identified that examines sexual self-concept in women before marriage who have not yet initiated sexual activity. Therefore, this study aimed to determine sexual self-concept and its predictors in women on the verge of marriage. Probably, by using the results of this study, women's health policymakers can design programs to strengthen positive sexual self-concept, improve physical and mental health, and ultimately strengthen the foundation of the family.

#### 2. Objectives

This study aimed to determine socio-demographic predictors of sexual self-concept and its dimensions in women on the verge of marriage.

## 3. Methods

#### 3.1. Study Design

This study was a cross-sectional study conducted within April to September 2022 on 130 women attending pre-marital counseling centers in Tabriz, Iran.

#### 3.2. Participants

The participants in this study were 130 women referring to pre-marriage counseling centers in Tabriz who met the conditions to participate in the study. The inclusion criteria for the study included being on the verge of marriage, being 15 years old or older, and not having any mental or psychological illnesses based on self-report. The exclusion criteria included a history of previous marriage and physical disability.

#### 3.3. Scales

The scales used in this study were as follows:

#### 3.3.1. Personal and Social Questionnaire

is а This questionnaire researcher-made questionnaire and includes questions regarding age, education level, employment status, place of residence, spouse's age, spouse's education level, parents' education level, spouse's occupation, income sufficiency, family support, history of sexual abuse, education, educational resources, sexual and familiarity's way and duration of acquaintance with the future spouse. The validity of the personal and social questionnaire was assessed using content and face validity.

## *3.3.2. Multidimensional Sexual Self-concept Questionnaire (MSSCQ)*

This questionnaire, developed by Snell in 1995, assesses 20 aspects related to sexual self-concept. It consists of 18 dimensions with 78 items rated on a Likert scale from 0 (not at all) to 4 (completely). The dimensions are categorized as negative sexual selfconcept, positive sexual self-concept, and situational sexual self-concept. The maximum scores for positive sexual self-concept, negative sexual self-concept, and situational sexual self-concept are 176, 64, and 72, respectively; however, the minimum score for these dimensions is 0. The Persian version of this questionnaire, validated by Ziaei et al. in Isfahan, Iran, in 2013 with a sample size of 352 couples, had a Cronbach's alpha of 0.88 (19). A pilot study was conducted on 20 women with an interval of 2 weeks to measure the test-retest reliability of MSSCQ. The intraclass correlation coefficient (ICC) and Cronbach's alpha were calculated at 0.91 and 0.87, respectively.

## 3.4. Sample Size

The sample size in this study was calculated by Gpower software based on the results of Mohammadi Nik et al.'s study (20) regarding the positive self-concept variable and considering the standard deviation of 22.7, d = 0.05 (study accuracy) around the mean (120.73),  $\alpha =$ 0.05, and power = 90%. With the consideration of potential dropouts, 130 participants were included in this study.

#### 3.5. Data Collection

In this study, sampling was performed through the convenience sampling method over a period of 6 months after obtaining ethical approval from the Ethics Committee of Tabriz University of Medical Sciences. The researcher visited pre-marital counseling centers in Tabriz and provided a full explanation of the study objectives and methods to women who intended to get married. Women who were willing to participate in the study were assessed for the inclusion and exclusion criteria, and those who met the criteria were selected. After obtaining informed consent, the data were collected using study instruments. The participants received and completed the questionnaires during their visits to pre-marital counseling centers while waiting for test results or before starting educational classes. The personal and social questionnaire and MSSCQ were completed by the researcher through the interview method.

## 3.6. Data Analysis

After data collection from all study participants, the data were analyzed using SPSS software (version 24; SPSS Inc., Chicago, IL, USA). The normality of quantitative data was assessed using the Kolmogorov-Smirnov test. Descriptive statistics, including frequencies (percentages) and means (standard deviations), were

used to describe the participants' demographic and social characteristics and dimensions of sexual selfperception. In order to determine the relationship between different dimensions of sexual self-concept with individual and social characteristics in bivariate analysis, Pearson's correlation tests and one-way analysis of variance were used. Then, to determine the effect of independent variables (personal and social characteristics) on the dependent variable (sexual selfconcept) and to control confounding variables, the variables that had a P-value less than 0.2 in the bivariate analysis were entered into the multivariate linear regression test with a backward strategy. Before multivariate analysis, regression assumptions, such as residual normality, residual variance homogeneity, linear outliers, and residual dependence, were studied.

#### 3.7. Ethical Consideration

This study was conducted in accordance with the Helsinki Declaration and relevant guidelines. All participants were given the necessary information about the study, and their informed written consent was obtained. The Ethics Committee of Tabriz University of Medical Sciences confirmed the study (ethics code: IR.TBZMED.REC.1399.386).

## 4. Results

The mean (standard deviation) age of the women was 24.6 (6.0) years, and the mean (standard deviation) age of their spouses was 28.5 (8.5) years. The majority of women were homemakers, and their spouses were self-employed. In terms of education, most women and their spouses had university degrees; nevertheless, the parents of the participants had secondary education. None of the participants reported a history of childhood sexual abuse. Table 1 shows the demographic and social characteristics of the participants.

The results of the bivariate analysis showed a significant statistical association between age, spouse's age, education level, economic status, and duration of acquaintance with positive sexual self-concept (P < 0.05). Similarly, there was a significant association between age, spouse's age, education level, spouse's education level, parents' education level, family support, and duration of acquaintance with negative sexual self-concept (P < 0.05). Age and women's education level were also significantly associated with situational sexual self-concept (P < 0.05)(Table 1).

The mean (standard deviation) score for positive sexual self-perception was 117 (20) out of a possible score range of 0 - 176; nevertheless, the mean (standard

Variables	No. (%)	Correlation with Self-cor	Positive Sexual acept	Correlation with Self-cor	'' Negative Sexual ncept	Correlation with Si Self-con	tuational Sexual cept
		Mean (SD)	P-Value	Mean (SD)	P-Value	Mean (SD)	P-Value
Age (y)	24.7 (6.0)		0.004 <sup>a</sup>		< 0.001 <sup>a</sup>		0.022 <sup>a</sup>
Husband's age (y)	28.6 (5.8)		0.002 <sup>a</sup>		0.004 <sup>a</sup>		0.161 <sup>a</sup>
Education			0.039 <sup>b</sup>		0.002 <sup>b</sup>		0.038 <sup>b</sup>
Guidance school	33 (25.4)	112.0 (24.3)		20.8 (9.2)		41.8 (11.2)	
High school	43 (33.1)	97.6 (17.5)		12.7 (6.9)		32.6 (7.9)	
University	54 (41.5)	117.4 (16.3)		13.3 (1.1)		45.1 (8.2)	
Job			0.401 <sup>b</sup>		0.136 <sup>b</sup>		0.128 <sup>b</sup>
Housewife	73 (56.2)	118.2 (19.4)		16.6 (8.0)		44.2 (10.5)	
Employed	40 (30.8)	117.7 (20.8)		15.5 (7.5)		44.8 (8.1)	
Student	17 (13.1)	114.5 (16.7)		17.3 (7.0)		46.2 (8.9)	
Husband's education			0.382 <sup>b</sup>		0.035 <sup>b</sup>		0.789 <sup>b</sup>
Guidance school	20 (15.4)	111.3 (21.9)		19.9 (9.8)		42.7 (11.5)	
High school	53 (40.8)	114.2 (21.1)		18.2 (9.1)		43.5 (11.4)	
University	57 (43.8)	121.1 (15.2)		13.8 (5.2)		46.4 (9.6)	
Husband's job			0.164 <sup>b</sup>		0.128 <sup>b</sup>		0.411 <sup>b</sup>
Unemployed	9 (6.9)	111.0 (21.1)		15.1 (7.0)		44.0 (8.5)	
Worker	$26 \\ (20.0)$	114.5 (16.9)		18.2 (9.3)		44.8 (9.8)	
Employed	31 (23.8)	120.7 (16.0)		13.6 (5.4)		46.5 (9.1)	
Self-employed	64 (49.3)	118.4 (22.3)		16.7 (8.0)		43.8 (9.9)	
Father's education			0.126 <sup>b</sup>		< 0.001 <sup>b</sup>		
Guidance school	50 (38.4)	106.4 (19.7)		18.2 (9.2)		42.0 (9.2)	
High school	37 (28.5)	119.4 (19.1)		15.0 (5.0)		47.0 (9.5)	o 102 b
University	43 (33.1)	121.6 (19.1)		13.5 (6.5)		45.3 (9.4)	0.183
Mother's education			0.083 <sup>b</sup>		0.002 <sup>b</sup>		0.301 <sup>b</sup>
Illiterate	5 (3.8)	125.0 (23.4)		24.7 (11.0)		43.5 (13.5)	
Guidance school	63 (48.5)	113.2 (20.6)		18.2 (8.2)		43.1 (9.8)	
High school	41 (31.5)	120.2 (19.4)		14.1 (6.1)		46.8 (9.0)	
University	21 (16.2)	124.4 (17.5)		13.3 (6.5)		45.4 (9.6)	
Economic situation	( >		0.019		0.431		0.130
Favorable Relatively favorable	25 (19.2)	123.7 (22.7)		14.9 (7.4)		43.3 (8.9)	
	(56.9)	17.9 (17.7)		10.4 (7.3)		43.7 (3.0)	
	31 (23.8)	105.0 (25.6)	b	18.2 (8.3)	- b	40.5 (10.8)	b
Much	25 (10.2)	124.0 (10.4)	0.113 0	15.0 (0.2)	0.026	451(0,5)	0.850
Much	25 (19.2)	124.0 (19.4)		15.0 (8.2)		45.1 (9.6)	
Medium	(56.9)	117.5 (19.9)		15.4 (7.2)		44.9 (9.0)	
Low	31 (23.8)	112.7 (20.3)		19.6 (8.3)		43.8 (11.4)	
Source of information on sexual issues			0.902 <sup>b</sup>		0.278 <sup>b</sup>		0.637 <sup>b</sup>
No previous sex education	78 (60.0)	116.5 (21.0)		17.0 (8.2)		43.7 (10.0)	
Parents	24 (18.5)	121.3 (23.8)		17.5 (8.1)		46.4 (9.3)	
Friends	8(6.2)	116.7 (16.7)		14.1 (5.2)		47.1 (7.2)	

Table 1. Socio-Demographic Characteristics of Participants and Their Correlation with Sexual Self-concept (n = 130)

/ariables	В	SE	Beta	t	P-Value
lusband's age (y)	0.89	0.31	0.26	2.84	0.005
ducation (Reference: University)					
Guidance school	15.35	6.92	0.33	2.21	0.029
High school	15.72	5.30	0.36	2.96	0.004
Nother's education (Reference: Guidance school)					
Illiterate	17.21	9.90	0.14	1.73	0.085
High school	13.04	5.14	0.30	2.53	0.012
University	20.20	6.88	0.37	2.93	0.004

<sup>&</sup>lt;sup>a</sup> R = 0.431

 $^{b}R^{2} = 0.185$ 

 $^{c}$  ADJ.R<sup>2</sup> = 0.124

Variables	В	SE	Beta	t	P-Value
Age	-0.33	0.12	-0.25	-2.72	0.007
Father's education (reference: Guidance school)					
High school	-2.84	1.65	-0.16	-1.71	0.089
University	-3.80	1.66	-0.22	-2.28	0.024
Duration of acquaintance (reference: <1 year)					
No acquaintance	4.07	1.62	0.23	2.50	0.014
1-2 year	-2.91	2.41	-0.99	-1.20	0.229
> 2 years	-0.33	2.00	-0.01	-0.16	0.866

a R = 0.509

 ${}^{b}R^{2} = 0.260$ 

 $^{c}$  ADJ.R<sup>2</sup> = 0.211

#### 1. Background

Neglecting sexual issues and dissatisfaction can have adverse effects on individuals, including depression, anxiety, decreased self-confidence, and isolation, and can lead to problems in family and marital relationships, which might ultimately result in emotional or legal divorce (1). Therefore, sexual behavior affects the sexual satisfaction of couples and addresses their sexual needs, and sexual performance plays a significant role in the stability of marital relationships (2).

One of the factors influencing individuals' sexual behavior and functioning is their perceptions and feelings about sexual relationships and self-awareness of their sexual aspects (3). Sexual self-concept is a part of individuality or sexual identity and involves a person's understanding of their sexual orientations and desires (4). It refers to an individual's perspective on themselves as sexual beings and encompasses their thoughts and feelings about sexual matters (5). Sexual self-concept is significantly associated with women's sexual performance, and positive and negative aspects of sexual self-concept can be considered predictive variables of women's sexual performance (6).

Females' sexual lives begin long before their first sexual intercourse, and their pre-intercourse sexual experiences play a crucial role in their sexual understanding (7). The initiation of sexual and romantic experiences in relationships, as well as the prominent growth of sexuality during adolescence, turns this period into a key phase for developing a positive sexual self-concept (8). Sexual self-concept changes over time, grows throughout life, and is influenced by and influences experiences (9). Biological, psychological, and social factors can all influence sexual selfperception (10). Various studies have shown that factors such as age (9), gender (11), race (12), marital status (13), sexually transmitted infections (14), and social factors (15) can impact different aspects of sexual self-

Age 0.43 0.15 0.26 2.80 0.00	Variable	В	SE	Beta	t	P-Value
	Age	0.43	0.15	0.26	2.80	0.006
R=0.314	R = 0.314					

perception. Potki (2017) (16) categorized the factors affecting sexual self-concept into biological, psychological, and social factors in their systematic study. A history of sexual abuse during childhood might affect the development of a positive sexual self-concept and put individuals at high risk of sexual disorders. Sexual interaction with coercion and abuse can cause negative emotions, such as guilt, shame, anger, sadness, and despair (17).

Women with positive sexual self-concept have higher levels of sexual response and experience increased sexual satisfaction, marital satisfaction, marital compatibility, sexual self-esteem, sexual self-image, sexual self-efficacy, sexual consciousness, sexual selfblame, and better sexual problem management. Nevertheless, women with negative sexual selfperception experience undesirable sexual performance, sexual problems, sexual anxiety, sexual fear, and sexual depression, making them less likely to cope with sexual problems and engage in sexual activities (18).

Sexual self-concept and its determinants can be essential in planning for the physical, emotional, and psychological well-being of individuals. Previous studies have been conducted in the field of sexual self-concept in married women, and no study was identified that examines sexual self-concept in women before marriage who have not yet initiated sexual activity. Therefore, this study aimed to determine sexual self-concept and its predictors in women on the verge of marriage. Probably, by using the results of this study, women's health policymakers can design programs to strengthen positive sexual self-concept, improve physical and mental health, and ultimately strengthen the foundation of the family.

## 2. Objectives

This study aimed to determine socio-demographic predictors of sexual self-concept and its dimensions in women on the verge of marriage.

## 3. Methods

## 3.1. Study Design

This study was a cross-sectional study conducted within April to September 2022 on 130 women attending pre-marital counseling centers in Tabriz, Iran.

## 3.2. Participants

The participants in this study were 130 women referring to pre-marriage counseling centers in Tabriz who met the conditions to participate in the study. The inclusion criteria for the study included being on the verge of marriage, being 15 years old or older, and not having any mental or psychological illnesses based on self-report. The exclusion criteria included a history of previous marriage and physical disability.

## 3.3. Scales

The scales used in this study were as follows:

## 3.3.1. Personal and Social Questionnaire

This questionnaire is а researcher-made questionnaire and includes questions regarding age, education level, employment status, place of residence, spouse's age, spouse's education level, parents' education level, spouse's occupation, income sufficiency, family support, history of sexual abuse, sexual education, educational resources, and familiarity's way and duration of acquaintance with the future spouse. The validity of the personal and social questionnaire was assessed using content and face validity.

# *3.3.2. Multidimensional Sexual Self-concept Questionnaire (MSSCQ)*

This questionnaire, developed by Snell in 1995, assesses 20 aspects related to sexual self-concept. It consists of 18 dimensions with 78 items rated on a Likert scale from 0 (not at all) to 4 (completely). The dimensions are categorized as negative sexual selfconcept, positive sexual self-concept, and situational sexual self-concept. The maximum scores for positive sexual self-concept, negative sexual self-concept, and situational sexual self-concept are 176, 64, and 72, respectively; however, the minimum score for these dimensions is 0. The Persian version of this questionnaire, validated by Ziaei et al. in Isfahan, Iran, in 2013 with a sample size of 352 couples, had a Cronbach's alpha of 0.88 (19). A pilot study was conducted on 20 women with an interval of 2 weeks to measure the testretest reliability of MSSCQ. The intraclass correlation coefficient (ICC) and Cronbach's alpha were calculated at 0.91 and 0.87, respectively.

### 3.4. Sample Size

The sample size in this study was calculated by Gpower software based on the results of Mohammadi Nik et al.'s study (20) regarding the positive self-concept variable and considering the standard deviation of 22.7, d = 0.05 (study accuracy) around the mean (120.73),  $\alpha$  = 0.05, and power = 90%. With the consideration of potential dropouts, 130 participants were included in this study.

## 3.5. Data Collection

In this study, sampling was performed through the convenience sampling method over a period of 6 months after obtaining ethical approval from the Ethics Committee of Tabriz University of Medical Sciences. The researcher visited pre-marital counseling centers in Tabriz and provided a full explanation of the study objectives and methods to women who intended to get married. Women who were willing to participate in the study were assessed for the inclusion and exclusion criteria, and those who met the criteria were selected. After obtaining informed consent, the data were collected using study instruments. The participants received and completed the questionnaires during their visits to pre-marital counseling centers while waiting for test results or before starting educational classes. The personal and social questionnaire and MSSCQ were completed by the researcher through the interview method.

## 3.6. Data Analysis

After data collection from all study participants, the data were analyzed using SPSS software (version 24; SPSS Inc., Chicago, IL, USA). The normality of quantitative data was assessed using the Kolmogorov-Smirnov test. Descriptive statistics, including frequencies (percentages) and means (standard deviations), were used to describe the participants' demographic and

social characteristics and dimensions of sexual selfperception. In order to determine the relationship between different dimensions of sexual self-concept with individual and social characteristics in bivariate analysis, Pearson's correlation tests and one-way analysis of variance were used. Then, to determine the effect of independent variables (personal and social characteristics) on the dependent variable (sexual selfconcept) and to control confounding variables, the variables that had a P-value less than 0.2 in the bivariate analysis were entered into the multivariate linear regression test with a backward strategy. Before multivariate analysis, regression assumptions, such as residual normality, residual variance homogeneity, linear outliers, and residual dependence, were studied.

## 3.7. Ethical Consideration

This study was conducted in accordance with the Helsinki Declaration and relevant guidelines. All participants were given the necessary information about the study, and their informed written consent was obtained. The Ethics Committee of Tabriz University of Medical Sciences confirmed the study (ethics code: IR.TBZMED.REC.1399.386).

## 4. Results

The mean (standard deviation) age of the women was 24.6 (6.0) years, and the mean (standard deviation) age of their spouses was 28.5 (8.5) years. The majority of women were homemakers, and their spouses were self-employed. In terms of education, most women and their spouses had university degrees; nevertheless, the parents of the participants had secondary education. None of the participants reported a history of childhood sexual abuse. Table 1 shows the demographic and social characteristics of the participants.

The results of the bivariate analysis showed a significant statistical association between age, spouse's age, education level, economic status, and duration of acquaintance with positive sexual self-concept (P < 0.05). Similarly, there was a significant association between age, spouse's age, education level, spouse's education level, parents' education level, family support, and duration of acquaintance with negative sexual self-concept (P < 0.05). Age and women's education level were also significantly associated with situational sexual self-concept (P < 0.05)(Table 1).

The mean (standard deviation) score for positive sexual self-perception was 117(20) out of a possible score range of 0 - 176; nevertheless, the mean (standard deviation) score for negative sexual self-perception was

16 (7) out of a possible score range of 4 - 38. The mean (standard deviation) score for situational sexual selfperception was 44 (9) out of a possible score range of 0 - 72.

The results of the multiple regression analysis showed that the spouse's age, education level, and mother's education level were predictors of positive sexual self-concept and predicted 12% of the variance of positive sexual self-concept (ADJ.  $R^2 = 0.124$ ) (Table 2). Age, father's education level, and duration of previous acquaintance were predictors of negative sexual self-concept and predicted 21% of the variance of negative sexual self-concept (ADJ.  $R^2 = 0.211$ ) (Table 3), and age was a predictor of situational sexual self-concept and predicted 6% of the variance of situational sexual self-concept (ADJ.  $R^2 = 0.063$ ) (Table 4).

#### 5. Discussion

The present study was conducted with the aim of determining socio-demographic predictors of sexual self-concept in women on the verge of marriage. Based on the results of this study, all three dimensions of sexual self-concept were within the average range. Moreover, the age, education level, parents' education level, and duration of acquaintance with the future spouse were predictors of sexual self-concept in women on the verge of marriage.

According to the results of this study, the mean (standard deviation) scores for positive sexual selfperception, negative sexual self-perception, and situational sexual self-perception in women on the verge of marriage were within the average range for all three dimensions. The aforementioned results are consistent with the results of studies by Doremami et al. (21) and Mohammadi Nik et al. (20) in all three dimensions of sexual self-perception. The results of a study by Potki et al. (16) on 707 married women in Sari, Iran, are also consistent with the results of the present study regarding positive and situational sexual selfconcept, although the mean score for negative sexual self-concept was lower in their study, which can be attributed to the fact that their participants were married and had sexual experiences. Additionally, Jaafarpour et al. (22) observed a moderate positive sexual self-concept and a high negative sexual selfperception in married women in their study, which could be related to the lower education level of their sample than the current study.

The results of the present study in the field of individual and social predictors of sexual self-concept indicated that the predictors of positive sexual selfconcept were education, spouse's age, and mother's education. Additionally, the predictors of negative sexual self-concept were age, father's education, and duration of acquaintance. Moreover, age was the only individual social predictor of situational sexual selfconcept. Hamidi et al. (18), in their study with the aim of reviewing biological-psychological-social factors related to women's sexual self-concept, reviewed 41 articles in this field and stated the factors related to sexual selfconcept in three general categories: Biological factors, including age, gender, race, marital status, disability, and diseases, psychological factors, including body image, childhood sexual abuse, and mental health, and social factors, including parents and peers, relationship with spouse, and media.

The present study identified age as a predictor of sexual self-concept among individual factors. Hensel and Deutsch showed that as age and sexual experiences increase, anxiety and concerns about sexual matters decrease, leading to the development of sexual self-concept and influencing individuals' future behavior (5, 9). The education level of parents was another predictor of sexual self-concept. Parents are generally considered the primary sexual educators for their children and one of the most important sources of information on sexual matters (23). Therefore, the high education level and awareness of parents, particularly mothers, are important in shaping positive sexual self-concept in girls.

Hamidi's literature review study highlighted the role of spousal relationships, stating that women with excellent emotional relationships with their spouses scored higher in positive sexual self-concept and lower in negative sexual self-concept. Furthermore, behaviors associated with love, intimacy, and attachment form the core of the sexual self-concept (18). In the present study, the participants were women on the verge of marriage without a history of sexual abuse, and the duration of acquaintance with the future spouse was a predictor of sexual self-concept, with longer acquaintance periods associated with lower negative sexual self-concept.

Sexual self-concept provides an understanding of an individual's sexual aspects. The way individuals feel about themselves as sexual beings will significantly impact their sexual behaviors and experiences (21). Addressing and strengthening the positive aspects of sexual self-concept can prevent risky sexual behaviors in the future and promote women's mental health and well-being (24). Having a history of sexual abuse in childhood is one of the important factors that determine sexual self-concept; it is also influenced by the social and family environment (25). However, none of the women in the present study reported a history of sexual abuse in childhood, which might be due to cultural and religious issues in Iran. Therefore, by planning interventions to enhance positive sexual selfconcept for women and their families through psychological, educational, and counseling approaches, it is possible to improve mental and sexual health, ultimately leading to stronger family foundations.

One of the strengths of this study is that it is the first to assess sexual self-concept in women on the verge of marriage. However, the limitations of this study included the assessment of sexual self-concept questionnaires, which might have led participants to withhold true answers due to cultural and social taboos, and the use of the convenience sampling method. It is suggested that future studies employ further extensive quantitative or qualitative studies with a large sample size and a random sampling method to establish better results in assessing the sexual self-concept of women.

#### 5.1. Conclusions

Based on the results of this study, age, education level, parents' education level, and duration of acquaintance with the future spouse were predictors of sexual self-concept in women on the verge of marriage. Considering that sexual self-concept develops during adolescence, policymakers can promote positive sexual self-concept in women by planning interventions, such as education, in order to increase the information of the individuals and their families and to provide conditions for couples to know better each other before marriage, and psychological counseling with sexual health approaches, leading to strengthening family foundations and successful childbearing in the future.

#### Acknowledgements

The authors would like to thank the dear Vice Chancellor for Research and Technology and professors of Tabriz University of Medical Sciences, personnel of premarital counseling centers, and others who helped conduct this study.

#### Footnotes

**Authors' Contribution:** MN implemented the study, was responsible for data collection, and wrote the first draft of the manuscript. SHH, SB, and MM contributed to the study design and data analysis and assisted in the preparation of the final version of the manuscript. All

the authors read and approved the final version of the manuscript.

**Conflict of Interests:** The authors have no competing interests.

**Data Availability:** The dataset presented in the study is available on request from the corresponding author during submission or after publication.

**Ethical Approval:** This study was conducted in accordance with the Helsinki Declaration and relevant guidelines. All participants were given the necessary information about the study, and their informed written consent was obtained. The Ethics Committee of Tabriz University of Medical Sciences confirmed the study (ethics code: IR.TBZMED.REC.1399.386).

**Funding/Support:** The project was financed by Tabriz University of Medical Sciences (grant No. 65569). The funding was spent on sampling and conducting the study.

## References

- 1. Khaleghinezhad K, Z A, Afshari P, Y A, A R. [Educational Needs in Premarital Counseling: Viewpoints of Couples Referring to Health Care Centers in Mashhad]. *IJME*. 2009;**8**:247-56. Persian.
- Boroumandfar K, Rahmati MG, Farajzadegan Z, Hoseini H. Reviewing sexual function after delivery and its association with some of the reproductive factors. *Iran J Nurs Midwifery Res.* 2010;15(4):220-3. [PubMed ID: 22049284]. [PubMed Central ID: PMC3203280].
- Gordani N, Ziaei T, Naghi Nasab Ardehaei F, Behnampour N, Gharahjeh S. Effect of Mood Regulation Skill Training on General and Sexual Self-Concept of Infertile Women. *J Res Dev Nurs Midw.* 2021;18(1):58-62. https://doi.org/10.52547/jgbfnm.18.1.58.
- Steinke EE, Wright DW, Chung ML, Moser DK. Sexual self-concept, anxiety, and self-efficacy predict sexual activity in heart failure and healthy elders. *Heart Lung*. 2008;37(5):323-33. [PubMed ID: 18790333]. https://doi.org/10.1016/j.hrtlng.2007.09.004.
- Deutsch AR, Hoffman L, Wilcox BL. Sexual self-concept: testing a hypothetical model for men and women. J Sex Res. 2014;51(8):932-45. [PubMed ID: 23998689]. https://doi.org/10.1080/00224499.2013.805315.
- Brassard A, Dupuy E, Bergeron S, Shaver PR. Attachment insecurities and women's sexual function and satisfaction: the mediating roles of sexual self-esteem, sexual anxiety, and sexual assertiveness. *J Sex Res.* 2015;**52**(1):110-9. [PubMed ID: 24350570]. https://doi.org/10.1080/00224499.2013.838744.
- O'Sullivan LF, Brooks-Gunn J. The timing of changes in girls' sexual cognitions and behaviors in early adolescence: a prospective, cohort study. *J Adolesc Health.* 2005;**37**(3):211-9. [PubMed ID: 16109340]. https://doi.org/10.1016/j.jadohealth.2004.08.019.
- Rostosky SS, Dekhtyar O, Cupp PK, Anderman EM. Sexual self-concept and sexual self-efficacy in adolescents: a possible clue to promoting sexual health? J Sex Res. 2008;45(3):277-86. [PubMed ID: 18686156]. https://doi.org/10.1080/00224490802204480.
- Hensel DJ, Fortenberry JD, O'Sullivan LF, Orr DP. The developmental association of sexual self-concept with sexual behavior among adolescent women. *J Adolesc*. 2011;34(4):675-84. [PubMed ID: 20970178]. [PubMed Central ID: PMC3753003]. https://doi.org/10.1016/j.adolescence.2010.09.005.

- Hajaghaie E, Haddadi A. The Role of Biological Differences in Sexual Self-Concept and Mental Health in Homosexual and Heterosexual Women. J Res Psychol. 2023;4(2):120-38. https://doi.org/10.31580/jrp.v4i2.2564.
- Aydoğdu F, Gürsoy F, Aral N. An investigation into the relationship between self-perception and sexual development in children attending preschool education. *Eur Early Child Educ Res J.* 2021;**29**(6):828-41. https://doi.org/10.1080/1350293x.2021.1968466.
- 12. Holmes MC. Mental Health and Sexual Self-Concept Discrepancies in a Sample of Young Black Women. *J Black Psychol*. 2016;**28**(4):347-70. https://doi.org/10.1177/009579802237542.
- 13. Snell Jr WE. *New directions in the psychology of human sexuality: Research and theory.* Cape Girardearu, MO: Snell Publications; 2001.
- Newton DC, McCabe M. Effects of sexually transmitted infection status, relationship status, and disclosure status on sexual selfconcept. J Sex Res. 2008;45(2):187-92. [PubMed ID: 18569539]. https://doi.org/10.1080/00224490802012909.
- Ward L. Understanding the role of entertainment media in the sexual socialization of American youth: A review of empirical research. *Dev Rev.* 2003;23(3):347-88. https://doi.org/10.1016/s0273-2297(03)00013-3.
- Potki R, Ziaei T, Faramarzi M, Moosazadeh M, Shahhosseini Z. Biopsycho-social factors affecting sexual self-concept: A systematic review. *Electron Physician*. 2017;9(9):5172-8. [PubMed ID: 29038693]. [PubMed Central ID: PMC5633209]. https://doi.org/10.19082/5172.
- Rellini AH, Meston CM. Sexual self-schemas, sexual dysfunction, and the sexual responses of women with a history of childhood sexual abuse. *Arch Sex Behav.* 2011;40(2):351-62. [PubMed ID: 21140286]. [PubMed Central ID: PMC3047701]. https://doi.org/10.1007/s10508-010-9694-0.

- Hamidi F, Hamzehgardeshi Z, Shahhosseini Z. Bio-psycho-social factors related to female sexual self-concept: A scoping review. J Clin Excellence. 2020;9(3):23-34. Persian.
- Ziaei T, Khoei EM, Salehi M, Farajzadegan Z. Psychometric properties of the Farsi version of modified Multidimensional Sexual Selfconcept Questionnaire. *Iran J Nurs Midwifery Res.* 2013;18(6):439-45. [PubMed ID: 24554940]. [PubMed Central ID: PMC3917125].
- 20. Mohammadi Nik M, Modarres M, Ziaei T. The relation between sexual self-concepts and attachment styles in married women: A cross-sectional study. *Nurs Pract Today*. 2018;**5**(1):235-42.
- Doremami F, Salimi H, Heidari Z, Torabi F. The relationship between sexual self-concept and contraception sexual behavior in 15 to 49 years old women covered by community health centers. *J Educ Health Promot*. 2023;12:27. [PubMed ID: 37034866]. [PubMed Central ID: PMC10079194]. https://doi.org/10.4103/jehp.jehp\_1185\_21.
- 22. Jaafarpour M, Maroufi M, Molaeinezhad M. Relationship between sexual self-concept and sexual performance in married women referring to Mobarakeh health centers, Iran. *J Res Dev Nurs Midw.* 2016;**12**(3):40-7.
- Salehi M, Kharaz Tavakol H, Shabani M, Ziaei T. The Relationship Between Self-Esteem and Sexual Self-Concept in People With Physical-Motor Disabilities. *Iran Red Crescent Med J.* 2015;17(1). https://doi.org/10.5812/ircmj.25359.
- 24. Anderson RM. Positive sexuality and its impact on overall well-being. Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz. 2013;**56**(2):208-14. [PubMed ID: 23361205]. https://doi.org/10.1007/s00103-012-1607-z.
- Guyon R, Fernet M, Canivet C, Tardif M, Godbout N. Sexual selfconcept among men and women child sexual abuse survivors: Emergence of differentiated profiles. *Child Abuse Negl.* 2020;**104**:104481. [PubMed ID: 32259709]. https://doi.org/10.1016/j.chiabu.2020.104481.