

Education Based on Theory of Planned Behavior over Sexual Function of Menopausal Women in Iran

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ABSTRACT

Background: More than half of the sexual problems in menopausal women are due to insufficient knowledge or false beliefs about sexual function. Theory of planned behavior (TPB) is one of the important theories that explain the main process of adopting healthy behaviors. This study investigates the effect of education based on TPB over sexual function of menopausal women in Sabzevar, Iran. **Materials and Methods:** In this quasi-experimental study, the data were collected through a survey. This study included 180 Iranian menopausal women from five health center of Sabzevar city in Iran from 2016 to 2017. Using a questionnaire, demographic, anthropometric, and TPB by SPSS version 22 software were measured and analyzed. **Results:** After educational intervention, the average rates of knowledge, attitude, perceived behavioral control, and intention to sexual function in education group were increased meaningfully (sig <0.05); these changes were not meaningful in control group. Furthermore, there was no statistically meaningful difference in subjective norms between two groups after intervention. **Conclusion:** According to the findings, it is proposed that TPB be used to improve sexual function in Iranian menopausal women.

KEYWORDS: Education, health, menopausal women

INTRODUCTION

Menopause is a process comprising physical and hormonal changes in women's bodies. Women in menopause and postmenopause may experience symptoms such as vaginal dryness and decreased libido (sexual desire).^[1] The researches show that sexual inadequacies are closely associated with social problems such as crimes, sexual assaults, and mental illnesses.^[2] However, desirable sexual function is the factor to strengthen family and the foundation to obtain and stabilize a consistent culture. Possibly, even couples having sexual inadequacies and they themselves are unaware of its effect on marital life problems and its role in building poor communication, low self-confidence, and depression in themselves and their spouses.^[3]

Among the most common sexual problems reported in menopausal women, were anxiety or inhibition during sexual activity (38.1%^c), lack of sexual pleasure (16.3%), and difficulty in achieving orgasm (15.4%^c). Other common problems were lack of lubrication (13.6%) and

painful intercourse (11.3%).^[4] The cited statistics are the reasons for the importance of attention to sexual health since sexual instinct is one of the inherent human needs, as Maslow has put it into the categories of physical or basic survival needs.^[5] Because if sexual function not to be satisfactory, it will result in deprivation and failure feeling, the lack of safety feeling, jeopardizing mental health, and finally family disintegration. Therefore, sex education programs include issues that have been considered to raise awareness and reduce sexual problems at all social levels.^[6] To develop sexual health education program, it is essential to pay attention to particular aspects of culture, religion, laws, norms, and prevailing values in the society and families. Media, the appropriate message, and the appropriate message transmitter are also very important to success of every educational

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program.^[2] Theory of planned behavior was made by Ajzen and Fishbin in 1980. This theory is considered the intention of doing a behavior as the main cause for doing that. Intention is also influenced by the attitude toward behavior, abstract norms toward that, and individual's sense of control over it (in terms of its ease or difficulty). The behavioral intention of an individual is the most significant determinant of that behavior. The individual's behavioral intention depends on his/her attitude toward abstract behaviors and norms related to that behavior.^[7,8] The review of prior studies indicates that there has never been study yet on sex education based on the theory of planned behavior (TPB) of women in Iran. Thus, the current research has been carried out with the aim the effect of education based on TPB over sexual function of menopausal women in Sabzevar, Iran.

MATERIALS AND METHODS

Participant

In this quasi-experimental study, menopausal women visiting health centers of Sabzevar, Iran in 2016 were investigated. The sample was included 180 menopausal women which were selected from five health centers by cluster-random sampling method.

Inclusion criteria included age between 55 and 65 years, visiting research-related healthcare centers, married, living with spouse currently, having a tendency to participate in the study, and being Iranian.

Measure tools

The data collection tools of multiple-choice questionnaire included demographic data (13 questions), knowledge (21 questions), TPB (including attitude [12 questions]), subjective norms (8 questions), perceived behavioral control (PBC) (6 questions), behavioral intention (3 questions), and sexual function (19 questions).

Knowledge

It included 21 questions about sexual function. The questions of this part were as four multiple-choice and true and false ones. The scores of 1 and 0 were assigned to true and false responses, respectively; for instance, one of the four multiple choice questions was such as "which part of the women genital is more sensitive to sexual stimulation than others?" Furthermore, a sample of true and false questions is as follows: "if appropriate stimulation be done, are women able to experience multiple orgasms during an intercourse?" The items had high external consistency ($r = 0.93$).

Attitude

This scale had 12 items, indirect attitude assessed (1) behavioral beliefs by six 5-point items ranging from "disagree strongly" to "agree strongly" (-2 to +2) and

(2) outcome evaluations by six 5-point items ranging from "not at all" to "very much" (+1 to +5). Once multiplied together, possible indirect subjective norm scores ranged from -8 to +40, the items had high internal consistency (Cronbach's $\alpha = 0.85$).

Subjective norm

This scale had eight items, indirect subjective norm assessed (1) normative beliefs by four 5-point items ranging from "disagree strongly" to "agree strongly" (-2 to +2) and (2) motivation to comply by four 5-point items ranging from "not at all" to "very much" (+1 to +5). Once multiplied together, possible indirect subjective norm scores ranged from -8 to +40, the items had high internal consistency (Cronbach's $\alpha = 0.80$).

Perceived behavioral control

This scale had six items, indirect PBC assessed control beliefs and their perceived power of the behavior by three 5-point items ranging from "disagree strongly" to "agree strongly" (-2 to +2) and three 5-point items ranging from "not at all" to "very much" (+1 to +5). Once multiplied together, possible indirect subjective norm scores ranged from -6 to +30. The items had moderate internal consistency (Cronbach's $\alpha = 0.79$).

Intention

This scale had three items, intention was measured as the sum of three 5-point items (+1 to +5) that assessed intention to have the sexual function in the future (e.g., "I intend to always orgasm during vaginal sex with my partner during the next months" from "not at all" to "very much"). The items had moderate internal consistency (Cronbach's $\alpha = 0.70$).

Sexual function

This scale had 19 items, index of sexual functioning for women^[4] is a 19-item, self-report inventory that measures current levels of sexual functioning and satisfaction in women. The items had high external consistency ($r = 0.93$).

Educational intervention

In the first step (before providing education), the questionnaire was completed by participants; participants were divided into two groups of sex education and control randomly. Then, educational intervention was conducted during four training sessions of 75 min each, based on the analysis of the results obtained from the first step for experimental group. In the first session, the group individuals discussed and exchanged the experiences of their friends and familiar individuals with themselves. Discussion and exchange of ideas were directed within 75 min by the educator to determine positive opinions

and attitudes of individuals so that it can indirectly provide positive motivation for them to talk about their sexual affairs with spouse, to make new attitudes, and to change negative attitude toward intercourse. In the second session, sexual identity, steps and process of sexual function were explained by displaying training slides and to be tried to make more motivation for marital relationship, based on being necessary for intercourse, with emphasis on satisfactory one, and was followed by 30 min discussion with women on hardness and easiness of intercourse; also common beliefs and misconceptions about sexual relationship were discussed within 75 min so that the intensity of these misconception would be reduced and the ground be prepared for attitude and belief change. The third and fourth sessions took 75 min. Indirect training was provided using one booklet and two education leaflets. There was no educational intervention in control group. Then again, after 1 month follow-up, the questionnaires were completed by two groups of sex education and control.

Data analysis

After collecting data, the questionnaires were encoded and data entered into the computer, and the analysis was carried out by SPSS version 22 software (IBM SPSS Statistics for Windows, Armonk, NY: IBM Corp. Released 2013), including Paired *t*, Independent-samples *t*-test, Mann–Whitney U-test, and Chi-square test were used. Descriptive statistics including mean and deviation frequency were used to describe demographic information of research samples. The correlation coefficient of Pearson and Spearman was used to determine correlation between TPB variables. The level of significance of *P* < 0.05 was considered for all tests.

RESULTS

Demographic variables

Before training in two groups of test and control, Mann–Whitney U-test did not show any statistically meaningful difference in terms of age, marriage age, [Table 1] marriage duration, number of children, income status, and oldest and youngest children [Table 2].

The majority of sex education and control group has university (42.5%) and high school (37.5%) degree, respectively, and the education level of husband in sex education and control group has been high school degree (50%) and university degree (40%), respectively. The job of majority of research units in both groups was homemakers (70%). The husband’s job in sex education and control group was freelance (52.5%). The income of the majority of research units (90%) was enough. The majority of research units (66.3%), in terms of housing

Table 1: Manage, marriage in education and control groups before of education

Variables	Mean±SD		Independent-samples <i>t</i> -test
	Sex education	Control	
Age (year)	10.53±35.75	10.77±36.35	<i>t</i> =-0.252 <i>P</i> =0.802 df=78
Marriage age (year)	4.56±21.15	6.47±21.18	<i>t</i> =-0.02 <i>P</i> =0.984 df=78

SD: Standard deviation

Table 2: Median duration of marriage, the number of children, income status, the age of the oldest and youngest child, in two groups of education and control before training

Variables	Median (interquartile range)		Mann–Whitney U-test
	Sex education	Control	
Marriage duration (years)	34.00 (23.00)	31.00 (30.75)	<i>Z</i> =-0.512 <i>P</i> =0.609 df=78
Number of children	2.000 (2.00)	2.00 (2.75)	<i>Z</i> =-0.09 <i>P</i> =0.928 df=78
Oldest child age (years)	31.00 (23.00)	31.5 (22.000)	<i>Z</i> =0.211 <i>P</i> =0.833 df=78
Youngest child age (years)	18.00 (13.00)	19.00 (12.00)	<i>Z</i> =-0.145 <i>P</i> =0.855 df=78
Income status (Rials)	5,000,000 (200,000)	600,000 (500,000)	<i>Z</i> =0.436 <i>P</i> =0.663 df=78

status, had their personal home. Table 3 displays the Spearman’s correlation coefficient among TPB variables, intention, attitude, subjective norm, and PBC. All the TPB variables correlated significantly with behavioral intention. Subjective norm (*r* = 0.465, *P* < 0.01) was significantly and strongly correlated followed by the PBC (*r* = 0.31, *P* < 0.01) and attitude (*r* = 0.292, *P* < 0.01). Since they correlated positively an increase in the value of one TPB component was accompanied by an increased intention to sexual function. However, knowledge did not correlate significantly with any of the TPB component. Table 4 shows the average rates of knowledge, attitude, PBC, intention, and sexual function in education group was increased meaningfully (sig <0.05); these changes was not meaningful in control group. There was also no statistically meaningful difference in subjective norms, between two groups after intervention (sig <0.05).

Table 3: Correlations among the components theory of planned behavior, knowledge, intention, attitude, subjective norms, perceived behavioral control, sexual function

Variables	Knowledge	Attitude	Subjective norms	Perceived behavioral control	Intention	Sexual function
Knowledge	-					
Attitude	0.043	-				
subjective norms	0.034	0.268**	-			
perceived behavioral control	0.03	0.186**	0.635**	-		
intention	0.041	0.292**	0.469**	0.310**	-	
Sexual function	0.012	0.287**	0.143*	0.054	0.010	-

**P<0.01, *P<0.05

Table 4: The comparison among the average of studied variables in group of education and control, before and after intervention

Variables	Groups						Test
	Education (mean±SD)		Significant	Control (mean±SD)		Significant	
	Before	After		Before	After		
Knowledge	2.92±16.25	1.89±18.55	0.001	3.19±16.47	3.08±16.72	0.09	P=0.002 T=3.10
Attitude	5.92±23.32	15.34±29.35	0.02	6.46±21.70	15.98±22.80	0.62	P=0.03 T=2.17
Subjective norms	11.77±16.02	11.54±19.12	0.27	9.35±19.12	8.84±18.97	0.93	P=0.924 T=0.06
Intention	2.42±3.05	1.87±4.10	0.029	2.44±3.15	2.17±3.17	0.96	P=0.04 T=2.03
Perceived behavioral control (nonparametric tests)	20.50 (17.50)	6.00 (24.00)	0.001	19.00 (19.00)	17.00 (9.00)	0.904	P=0.001 Z=-5.05
Sexual function (nonparametric tests)	3.42 (28.25)	5.25 (30.45)	0.013	2.67 (28.75)	4.65 (28.00)	0.051	P=0.002 Z=-2.96

SD: Standard deviation

DISCUSSION

The general aim of the current study was “the effect of education based on TPB over sexual function of menopausal women in Sabzevar, Iran.”

The results of the current study show that the score of knowledge after intervention in education group had a meaningful difference than the score of that before intervention. In other words, the planned educational intervention in this research has caused the increase of knowledge of education group.

The sexual knowledge is followed by pleasure and improvement of marital and emotional relationship between them. If couples have a better understanding about this important dimension of relationship, they will be able to change their communication methods and to improve them and to take an appropriate solution against the incidence of marital conflicts and problems. The ignorance and lack of sexual knowledge and gaining inaccurate information about intercourse will result in increasing sexual conflicts and problems of couples. The issue of education’s impact on increasing

knowledge is consistent with studies.^[9-12] The attitude score after intervention in education group had a meaningful difference compared with that of attitude before intervention, which this score was not meaningful in control group. As it can be seen, although measured attitude status in this study has been on the average, the rate of attitude change after intervention had a meaningful difference compared to that of rate before the intervention. It seems that positive attitude by itself is not enough to have proper sexual function and the awareness level affects this issue as well. For instance, the intervention group had a positive attitude toward enjoyment of sexual pleasure, but was not aware of manner and quality of that. Taking this issue into consideration that the attitude of studied individuals in the intervention group had a meaningful difference before and after training, but this difference that has not been observed in control group indicates that educational intervention has caused this difference in the intervention group. The current study was not consistent with the study.^[13] In the case of increasing attitude score of experimental group have stated that the average variable score of the attitude

of experimental group after intervention had not a meaningful difference with control group.^[13] The reason can be considered as less involvement of studied group in learning process, less self-originating in spouses, and use of inactive learning methods in the study.^[13] The obtained results from the average variable subjective norms in sex education group had no meaningful difference compare to before intervention. That is sex education have had no meaningful statistical difference in the score of subjective norms of education group. Therefore, it may be required to be spent more time justifying and training sexual function to increase the score of subjective norms or it may be required subjective norms such as their spouses who are important for studied group to be entered into training sessions as well.

In marital life, there are beliefs that are true and there is no evidence to support them. These strongly held beliefs create expectations that prevent spouses from achieving their goals and put their sexual health in danger and become the main reason behind many conflicts, especially between spouses, as dysfunctional beliefs.^[14,15] In marital life, there are beliefs that are true and there is no evidence to support them. These strongly held beliefs create expectations that prevent spouses from achieving their goals and put their sexual health in danger and become the main reason behind many conflicts, especially between spouses, as dysfunctional beliefs. Addis and Bernard stated in their study that subjective norms had the most correlation with the intention of taking HIV test. This inconsistent results can be linked to time issue since intervention, in the case of time, has been carried out in more amount of time than that of this study.^[16] The results of the current study indicate that the score of PBC after intervention in education group had a meaningful difference compared to that of score before the intervention, which this score was not meaningful in control group. In the current study, PBC and the feeling of having the will and control over doing the behavior are important factors to start having a sexual function in sex education group and increase of that followed by intervention is indicated the effect of education on rising PBC. The results of the study are consistent with the study.^[17] The results of the current study indicate that the score of behavioral intention after intervention in education group had a meaningful difference compare to that of score before intervention, which this score has not been meaningful in control group. Hence, sex education has caused the increase of the behavioral intention in experimental group. According to this, whenever women acquire enough knowledge along with positive attitude toward sexual function and on the other hand, if women feel that environmental factors (facilities and barriers) are in their own willpower, they will be full of

intention about sexual function and if intention express properly, they will have the better sexual function have stated that there is a correlation between attitude and behavioral intention and subjective norms and the intentions of safe sexual behavior as well.^[18,19] The score of sexual function after intervention in education group had a meaningful difference compared to that of score before intervention in the same group, which this score has not been meaningful in control group. In the study, the cognitive behavioral training showed the decrease in sexual function disorder, which is consistent with the current study.^[20]

CONCLUSION

In the educational intervention that was carried out in this study, it was tried to learn women how they can use their own information and refuse behaviors that they do not like or be considered unhealthy with explaining sexual healthy behavior, without arising any problems with their husbands. This issue shows if women have enough awareness to justify and speak with their husbands and have the positive attitude along with positive perceived control, they can have a better sexual function.

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Conflicts of interest

There are no conflicts of interest.

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