Geliş Tarihi (Received): 17.03.2023 Kabul Tarihi (Accepted): 25.04.2023

Araştırma Makalesi/Research Article

Kadınlara Sağlığı Geliştirme Modeline Göre Verilen Eğitimin Sağlıklı Yaşam Biçimi Davranışlarına ve Meme Kanseri Kadercilik Algılarına Etkisi

Effect of Education Based on Health Promotion Model on Healthy Lifestyle Behaviors and Breast Cancer Fatalism Perceptions in Women

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Alıntı (Cite): Ersin, F, Havlioğlu, S. Effect of Education Based on Health Promotion Model on Healthy Lifestyle Behaviors and Breast Cancer Fatalism Perceptions in Women. Llnursing. 2023;4(1): 150-165

Özet: Bu çalışma vaiz olarak görev yapan kadınlara sağlığı geliştirme modeli temel alınarak verilen eğitimin sağlıklı yaşam biçimi davranışlarına ve meme kanseri kadercilik algılarına etkisini belirlemek amacıyla yapılmıştır. Çalışma, tek gruplu ön test-son test desenine sahip yarı deneysel bir çalışmadır. Çalışmanın örneklemini 138 vaize kadın oluşturmuştur. Kadınların sağlıklı yaşam biçimi davranışları ölçeği ön test ve son test puan ortalamaları arasında istatistiksel olarak anlamlı fark bulunurken (t=-4.891, p=.000), meme kanseri kadercilik ölçeği ön test ve son test puan ortalamaları arasında istatistiksel olarak anlamlı fark bulunmamıştır (t=1.633, p=.105). Sağlığı geliştirme modeline dayalı eğitim, kadın vaizlere sağlıklı yaşam biçimi davranışları kazandırmada etkili olmuş ve meme kanseri kaderciliği algısını azaltmıştır. Bu nedenle bu eğitimin sürekliliğinin sağlanması, ilgili eğitim programlarının belirli aralıklarla geliştirilmesi ve uygulanması önerilmektedir.

Anahtar Kelimeler: Meme kanseri kaderciliği; sağlığı geliştirme; sağlıklı yaşam biçimi davranışları.

Abstract: This study was conducted to determine the effect of an education based on health promotion model on healthy lifestyle behaviors and breast cancer fatalism perceptions in women preachers.
Methods: This study was a quasi-experimental study with one-group pretest-posttest design. The sample of the study consisted of 138 women preachers.
Results: A statistically significant difference was found between the women pre and post-test healthy lifestyle behaviors scale mean scores (t=-4.891, p=.000), but there was no statistically significant difference between their pre and post-test breast cancer fatalism scale mean scores (t=1.633, p=.105).
Conclusion: The education based on health promotion model was effective in making women preachers gain healthy lifestyle behaviors, and decreased their perception of breast cancer fatalism. Therefore, it is recommended to ensure the continuity of this education, and to develop and implement relevant training programs at certain intervals.

Key Words: Breast cancer fatalism; health promotion; healthy lifestyle behaviors.

Introduction

Health promotion is a basic strategy referring to the behavioral changes in health services and adaptation of health-promoting behaviors for improving the quality of life of people.[1] The main purpose of health promotion is to gain healthy lifestyle behaviors known as health promotion behaviors.[2-4] Healthy lifestyle behaviors are defined as the "behaviors encouraging individuals to maintain and raise their level of well-being".[5] These behaviors are very important in preventing diseases, early diagnosis of diseases, increasing the quality of life, and healthy aging.[6] Therefore, existing behaviors of individuals should be determined and relevant trainings should be planned and implemented to make them develop, gain and maintain healthy lifestyle behaviors.[7] The literature also supports the effect of education in this regard.studies report that education increases healthy lifestyle behavior mean scores of intervention group with education.[8-13]

In addition, it is very important for individuals to maintain protective behaviors in healthy behaviors. However, sometimes their perceptions can negatively affect maintaining these behaviors. One of these perceptions is the perception of fatalism. Therefore, it is also very important to determine the level of fatalism, which is effective in protecting and improving health and gaining early diagnosis behaviors.[14] Breast cancer fatalism, which is common in women with breast cancer, is effective in performing early diagnosis behaviors for breast cancer and maintaining a healthy life. Although there are descriptive studies conducted to determine the perceptions of breast cancer fatalism, there are no interventional studies supported by models.[15]

The basic concepts and principles in the health promotion model developed by Pender (1988) have become a guidance for determining healthy lifestyle behaviors. The health promotion model draws attention to the learning process that affects individuals' health-promoting behaviors, and emphasizes the importance of health education given to individuals in this

process. [7] Therefore, an education structured using the health promotion model can be effective in making individuals gain health-promoting behaviors. In addition, the contribution of community leaders in making people gain these behaviors is undeniable.

Educating women who are considered as community leaders in Turkey, called women preachers, on healthy lifestyle behaviors and breast cancer fatalism is very important in making women gain healthy behaviors. For this reason, this study was conducted to determine the effect of an education based on health promotion model on healthy lifestyle behaviors and breast cancer fatalism perceptions in women.

Hypothesis

H^1 Women have higher mean scores of healthy lifestyle behaviors after education than before education.

H^2 Women have higher mean scores of breast cancer fatalism perception than before education.

Materials and Methods

Type of Research

This is a quasi-experimental study (one-group pretest-posttest design).

Time and Place of the Research

The study was conducted between October 2019 - October 2020 with women preachers affiliated to the Mufti's Office of the Directorate of Religious Affairs in the City in Southeast Turkey.

Population and Sample of Research

No sampling method was used in the study, aiming to reach 172 women preachers in the city center in southeast Turkey. However, only 138 women preachers were applied pre-test and post-test.

Data Collection and Application

The education was held in three groups (1st group - 44 woman, 2nd group - 46 woman, 3rd group - 48 woman) within one week intervals in the meeting hall of the Mufti's Office. Data were collected by face-to-face interview method. The women in the sample were divided into three groups. Before the training, the purpose of the training was explained to the participants. The pretests before the training were completed in an average of 10 minutes. Posttests were completed 6 months after training. The training took an average of 45 minutes.

The education was structured on the basis of health promotion model. Power point presentations prepared by the researchers were used in the trainings. Content of the training: healthy lifestyle behaviors and self performed a breast self-exam.

Data Collection Tools

Data were collected using an introductory information form, the Healthy Lifestyle Behavior Scale II (HLBS-II), and the Breast Cancer Fatalism Scale.

Introductory Information Form**:** The form consisted of 11 questions about participants' socio-demographic and breast cancer characteristics.

Healthy Lifestyle Behavior Scale II (HLBS-II): This scale was developed by Walker et al. (1987) and revised in 1996.[16,17] Its Turkish validity and reliability study was performed Bahar et al. (2008).[18] The scale, which evaluates healthy lifestyle behaviors in individuals, consists of a total of 52 items and 6 subscales. The subscales are nutrition, health responsibility, physical activity, interpersonal relationships, spiritual development and stress management. All items of the scale are positive. Total scale score shows the score of healthy lifestyle behaviors. This is a 4-point likert type scale (4). The lowest and highest scores are 52 and 208, respectively. The Chronbach's alpha value of the scale is 0.94. In this study, the Chronbach's alpha value of the scale was found as 0.90.

Breast Cancer Fatalism Scale: Scale was developed in the USA, consisting of 15 items.[19,20] Mayo et al. (2001) revised the scale to measure breast cancer fatalism by reducing it to 11 items. The scale includes "Yes-No" questions, whereby "Yes"=1 and "No"=0. A higher scale score indicates a higher perception of fatalism. [21 Since the scale contains 11 items, total scale score vary between 0-11. This is one-factor scale, which can be filled out in 3-5 minutes. The internal validity coefficient of the original scale is reported as 0.89. The Turkish validity and reliability study of the 11-item version of the scale was performed by Ersin et al. in 2015. They found the KR-20coefficient (PFI_{TR} –rPFI) as 0.797, and the item-total correlations between 0.264 and 0.530.[14] In this study, the Chronbach's alpha value of the scale was determined as 0.67.

Dependent and Independent Variables

Dependent Variables: Breast cancer early diagnosis behaviors, healthy lifestyle behavior scale II mean scores, and breast cancer fatalism scale mean scores.

Independent Variables: An education structured based on health promotion model, and socio-demographic characteristics (age, marital status, number of children, education level).

Data Analysis

Data were evaluated using the SPSS 22.0 package program, and analyzed using descriptive statistics (number, percentage, mean). Pre-and post-test results were compared using the dependent sample t-test.

Ethical Dimension of the Research

For conducting the study, an institutional permission was obtained from the Şanlıurfa Mufti's Office, an approval from the Faculty of Medicine Ethics Committee (Date: 18.09.2019, No: 39259) at Harran University, and informed consent from participants.

Limitations of the Research

The limitation of the study is that the results cannot be generalized to all women living in the region where the study was conducted.

Results

In this study, 76.4% of the women preachers were between the ages of 18-35 years, 56.5% were married, 79.0% were undergraduate, 20.3% had 3 or more children, and 71.0% previously received training on a health issue (Table 1)

Table 1: Identifying Characteristics of the Women (*n* = 138)

Characteristics	Number	Percentage
Age (31.30 ± 7.78)		
18-35	103	76.4
36-57	35	25.4
Marital Status		
Married	78	56.5
Single	60	43.5
Education		
High school	22	15.9
Undergraduate	109	79.0
Graduate	7	5.1
Number of children		
No children	59	57.2
1-2	31	22.5
3 and above	28	20.3
Getting information about a healthy lifestyle before		
Yes	98	71.0
No	40	29.0
Information place-person		
Health personnel	70	50.7
Social media	13	9.4
Books, magazines or brochures	8	5.8
Social environment (friend, relative, etc…)	7	5.1

In addition, 17.4% of them had a family history of breast cancer, 55.1% received information about breast cancer beforehand, and 34.8% performed breast self-examination (Table 2).

Table 2: Breast Cancer Characteristics of Women *(n* = 138)

Characteristics	Number	Percentage
Family history of breast cancer		
Yes	24	17.4
No	114	82.6
Breast cancer diagnosis status		
Yes	2	1.4
No	136	98.6
Getting information about breast cancer / early diagnosis		
Yes	76	55.1
No	62	44.9
Information place-person		
Health personnel	65	47.1
Social media	6	4.3
Books, magazine sorbrochures	3	2.2
Social environment (friend, relative, etc…)	2	1.4
Breast self-examination		
Yes	48	34.8
No	90	65.2

A statistically significant difference was found between the women preachers' pre and post-test healthy lifestyle behaviors scale II mean scores (t=-4.891, p=.000), but there was no statistically significant difference between their pre and post-test breast cancer fatalism scale mean scores (t=1.633, p=.105) (Table 3).

Table 3: Comparison of Women Preachers Before And After Training Healthy Life Style Behaviors And Breast Cancer Fatalism Scale Averages (*n* = 138)

Scales	Before the Training	After the Training	Test Value and Significance	
	$\bar{X}$ ±Sd	$\bar{X}$ ±Sd	*t*	*p*
Health Responsibility	19.84 ± 3.94	23.02 ± 4.96	-6,731	.000
Physical Activity	15.27 ± 3.79	17.76 ± 4.51	-5,507	.000
Nutrition	22.64 ± 4.20	24.60 ± 5.11	-4,033	.000
Spiritual Development	27.13 ± 4.19	27.78 ± 4.25	-1,561	.121
Interpersonal Relations	25.97 ± 3.77	26.72 ± 3.70	-1,877	.063
Stress Management	19.17 ± 3.97	20.65 ± 4.42	-3,629	.000
Healthy Lifestyle Behaviors Scale II	130.28 ± 18.67	140.30 ± 22.66	-4,891	.000
Breast Cancer Fatalism Scale	2.49 ± 1.73	2.21 ± 1.55	1,633	.105

$\bar{X}$: Mean, Sd: Standart Deviation, t: Independent t test

A statistically significant difference was found between breast cancer fatalism scale mean scores and marital status (*t*=2.75, *p*=.007), but there was no statistically significant difference between healthy lifestyle behaviors scale II mean scores and age, marital status, education status, number of children (Table 4).

Table 4: Comparison of the Socio-Demographic Characteristics of The Women Preachers and The Mean Scores of Healthy Life Style Scale II and Breast Cancer Fatalism Scale

Characteristics	Healthy Lifestyle Behaviors Scale II		Breast Cancer Fatalism Scale	
	$\bar{X}$ ±Sd	Test Value and Significance	$\bar{X}$ ± Sd	Test Value and Significance
Age				
18-35	130.39±17.62	*t*=0.13	2.68±1.69	*t* =1.98
36-57	129.94±19.62	*p*=.875	2.07±1.47	*p* =.049
Marital Status				
Married	132.58±19.26	*t* =1.73	2.21±1.46	*t* =-2.75
Single	127.56±16.26	*p* =.085	2.93±1.80	*p* =.007
Education				
High school	122.04±19.48		2.68±1.78	
Undergraduate	131.61±17.57	*KW*=3.71	2.47±1.65	*KW*=1.94
Graduate	132.11±17.89	*p* = .156	3.11±1.45	*p* = .378
Number of children				
1-2	131.97±17.09	*t* =.673	2.62±1.64	*t* =2.042
3 and above	128.93±19.31	*p* =.504	1.86±1.30	*p* =.045
No Children	123.07±17.03		2.72±1.59	

$\bar{X}$: Mean, Sd: Standart Deviation, t: Independent t test, KW: Kruskal Wallis Analysis

Discussion

The necessity of planning and implementing trainings to develop and maintain health behaviors is stated in the literature.[7] In this study, the women's health responsibility subscale mean score significantly increased after the education. Similar studies also found increased health responsibility subscale mean scores after the education.[12,22] Health responsibility is important for individuals to control their health, which can be increased through education. Therefore, the increased health responsibility subscale mean score after the education is an expected result of this study.

This study found that the women's physical activity subscale mean score was significantly increased after the education. This is a result similar to those in other relevant studies.[11,22] Physical activity has an important place in health behavior. Lack of physical activity ranks as the 4th global death risk.[23] Therefore, the result of this study showing that the women's physical activity mean score was increased through education, is very important in terms of making individuals gain healthy behavior.

This study found that the women's nutrition subscale mean score significantly increased after the education. Mahdipour et al. (2015) also found that the participants' post-education nutritional subscale mean score was high, but there was no significant difference compared to their pre-education mean score.[11] Similarly, other studies have reported increased nutrition subscale mean scores after the education.[22,24] Obesity ranks 5th in the global death risks.[23 Therefore, the result of this study revealing the women's increased nutrition subscale mean score after the education shows the effectiveness of the education based on health promotion model.

This study determined that the women's spiritual development subscale mean score slightly increased after the education, which was not statistically significant. A similar study found that the participants' spiritual development subscale mean score significantly increased after the

education.[12] Mental health is closely associated with health behaviors.[11] The lack of significant difference between the pre and post-test spiritual development subscale mean scores of women preachers who give religious education may be due to their religious beliefs. However, an increase in their spiritual development subscale mean score after the education is an important result for the study.

The interpersonal relations mean score of women preachers significantly increased after the education. Rathnayake et al. (2019) reported significantly higher interpersonal relations mean scores after the intervention.[12] Similar results were obtained in other studies.[25-27] The result of this study regarding the increase in women's interpersonal relations subscale mean score after the education is important in terms of showing the effectiveness of the education.

This study also found that the stress management subscale mean score of women preachers was significantly high after the education. Similar results were obtained in other studies.[11,12] Coşkun and Bebiş (2019) determined that the stress management mean score of nursing students increased after the intervention, which was not statistically significant.[22] The result of this study is an expected result showing the effectiveness of the education.

In this study, the healthy lifestyle behaviors scale total mean score of women preachers significantly increased after the education. This result obtained from the study supported the H_1 hypothesis. Similar to this study, several studies have reported higher post-intervention healthy lifestyle behaviors scale total mean scores.[1,8,9,11,12,29,30,31] As seen in the results of these studies, a planned health education improves health behaviors. In addition, the results obtained from this study are important in terms of showing the effectiveness of the health education based on health promotion model.

In addition, this study determined that the level of breast cancer fatalism of women preachers, which was low before the education, decreased further after the education. This result obtained from the study did not support the H_2 hypothesis. However, it is important that the average

score decreases. The perception of fatalism has been found low in some descriptive studies with different groups.[15,32,33,34] and high in some others.[35,36]

In this study, the education based on health promotion model decreased the breast cancer fatalism scale mean score of women preachers. In the literature, there is no intervention study on the perception of breast cancer fatalism. Decreased breast cancer fatalism perception of women preachers after the education is an expected result.

Conclusion and Recommendations

The education based on health promotion model was effective in making women preachers gain healthy lifestyle behaviors, and decreased their perception of breast cancer fatalism. Therefore, it is recommended to ensure the continuity of this education, and to develop and implement relevant training programs at certain intervals. In addition, nursing studies can be conducted using larger research samples and planning proper interventions to determine the perception of fatalism in individuals.

Conflict of Interest

The authors have no conflicts of interest to report.

Financial Support

There is no Institutional and Financial Support.

Author Contribution:

Fatma Ersin and Suzan Havlioğlu took part in every stage of the study.

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