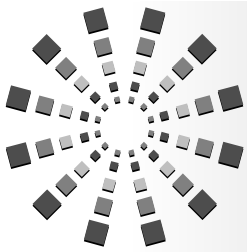

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The Effect of a Sexual Life Reframing Program on Marital Intimacy, Body Image, and Sexual Function among Breast Cancer Survivors

KEY WORDS
Body image
Breast cancer
Intervention
Intimacy
Sexual function
Sexuality

Background: Despite increasing awareness related to sexual health for breast cancer survivors, health care providers are passive in addressing their sexual issues. **Objective:** The aims were to develop and investigate the effect of a sexual life reframing program on marital intimacy, body image, and sexual function (interest, dysfunction, and satisfaction) among breast cancer survivors. **Methods:** Breast cancer survivors participated in this quasi-experimental study. The sexual life reframing program focused on the physical, psychological, and relational aspects of sexual health elements, and it consisted of 6 weekly 2-hour sessions. **Results:** The participants reported poor body image and sexual function. There were no statistically significant differences in marital intimacy, body image, sexual interest, and sexual dysfunction following the program, although all the variables in the intervention group were improved. The sexual life reframing program was effective in increasing sexual satisfaction among breast cancer survivors. **Conclusion:** This study suggests that the quality of sexual life in breast cancer survivors could be improved with the sexual life reframing program provided as part of supportive group care. This program may be more effective if targeted at couples rather than survivors only and if delivered earlier and for a longer period. **Implications for Practice:** The sexual life reframing program offers an opportunity to facilitate small-group dynamics that lay the ground for further contacts leading to earlier recognition of sexual problems and active involvement for sexual

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health improvement for breast cancer survivors and nurses. It could be utilized for survivor education or support groups to increase sexual satisfaction.

Breast cancer has been the No. 1 cancerous disease among women in Korea since 2001 and is rapidly increasing annually.[1] However, breast cancer survival rates have improved steadily because of the improvement of medical techniques and the aggressive approach with adjuvant therapy.[2] In the United States, the 5-year survival rate is 89.0%, which is the highest among total cancer survivors,[3] and in Korea, it is 87.3%, which is the second highest after thyroid cancer.[1] These increases in survival rates have led to corresponding increases in survival times, which underscores the importance of addressing quality-of-life issues among breast cancer survivors.[4]

As symbols of femininity and beauty, the breasts are considered as necessary and fundamental parts of women.[5] The adaptation to the disease process has been reported to take longer for breast cancer survivors than any other cancer.[6] Mastectomy may threaten the perceptions of femininity, and adjuvant therapy may cause sexual problems such as sexual dysfunction, loss of sexual interest related to subsequent early menopause, and a sense of loss of femininity and sexual interest.[7] Many breast cancer survivors have a negative body image. Changes can occur in marital intimacy through the loss of their breast because of the changes in their current figure[8]; there is dissatisfaction with self-appearance, perceived loss of femininity, strong reluctance about accepting one's body, and disruption of body integrity after treatments.[9]

Despite the importance of sexuality after treatment and a growing recognition of the issue, there is only limited information provided on possible sexual problems or medications focused on symptom management, and health care providers seldom approach sexual problems comprehensively, including both psychosocial and relational aspects. Addressing sexual problems is further limited, because most breast cancer survivors do not actively seek such services because of the lack of sensitivity regarding sexual problems in their recovery and the sociocultural barriers to open expressions of sexual problems, especially in countries such as Korea.[10,11]

Therefore, the overall aims of this study were to develop a sexual life reframing program for breast cancer survivors and investigate its effect on marital intimacy, body image, and sexual function (sexual interest, dysfunction, satisfaction).

Conceptual Framework

This study was mainly based on Ganz and colleagues'[12] conceptual framework with incorporation of relevant findings from the literature. The conceptual framework proposes that breast cancer treatments including mastectomy, chemotherapy, radiotherapy, and antihormone therapy influence changes in sexual life in breast cancer survivors. In turn, these changes in their sexual lives are proposed to affect the relational, psychological, and physiological dimensions such as marital intimacy, body image, and sexual function (sexual interest, dysfunction, and satisfaction).

In this study, a sexual life reframing intervention was proposed to maintain marital intimacy, body image, and sexual function, which may ultimately lead to a change in sexual life in breast cancer survivors (Figure).

Methods

Design

This study used a quasi-experimental design to identify the effects of a sexual life reframing program on marital intimacy, body image, and sexual function among Korean breast cancer survivors.

Sample and Setting

Study participants were breast cancer survivors who met the following eligibility criteria from a teaching hospital in Seoul, Korea: (1) married women between 30 and 59 years of age and living with their husband, (2) cancer stages I to III, (3) within 1 to 5 years since breast surgery, and (4) completion of adjuvant chemotherapy. Women who had breast reconstruction or recurrence were excluded because breast reconstruction may affect body image and sexuality and be different from mastectomy or lumpectomy.[13–16] Also, as women who are not legally married are reluctant to talk about their sexual partners in Korean culture, only married women living with their husbands were included. Women participating in support groups were also excluded because of the possibility of confounding effects.[17]

The sample size needed for t tests was calculated using the method of Cohen[18] based on a medium effect (d = 0.5), a power of 0.80, and a 2-tailed test with α of less than .05. Sixty participants who met all the inclusion criteria were randomly selected from a sampling list and assigned to either the intervention or the control group using a random-number table with consecutive numbers. Eight participants assigned to the intervention group and 7 from the control group could not participate because of personal problems such as jobs and taking care of children. Upon completion of the study, the analysis was done using data from 22 participants from the experimental group and 23 from the control group.

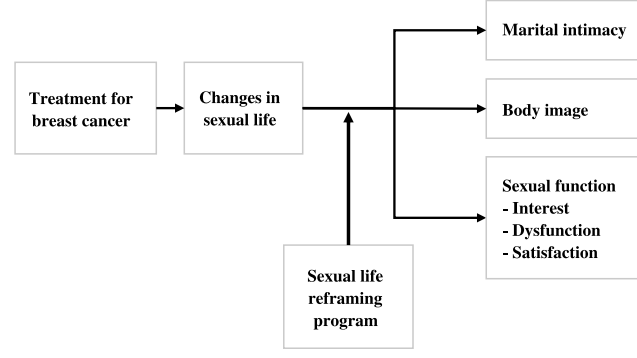

Figure ■ Conceptual framework.

Procedures

With the approval of the institutional review board, participants in the intervention group were given a brief summary of the purpose and procedures of the study, and informed consent was obtained. A questionnaire on marital intimacy, body image, and sexual function was administered before the program. In the control group, participation in the study was confirmed by telephone, and informed consent and the questionnaire were sent by mail with a stamped return envelope.

The intervention was delivered to the 3 groups of up to 10 persons each to maximize the small-group dynamics[19] and provided at the hospital by the main researcher to ensure consistency. The program consisted of 6 weekly 2-hour sessions. Refreshments were provided at each session, and a certificate of appreciation and gifts valued at $20 were also given upon completion of the program. The control group received usual care provided at the hospital and were offered the intervention for 2 hours after final data collection 6 weeks later, with individual counseling when requested.

The experimental group completed the questionnaire again after the last session, whereas the data for the control group were collected by mailed surveys (return rate 76.7%). The data were collected from August 6 to October 5, 2007.

Intervention

For the development of the sexual life reframing program, an analysis of the literature and the interview findings from a preliminary study[8,20–22] provided the potential concepts, and the specific contents of the program were organized in terms of physical, psychological, and relational aspects of sexual health elements.

The intervention for the physical aspects of sexual health included (1) education about the impact of cancer and treatments on sexuality and sexual function, (2) group discussion and counseling about potential and actual sexual problems and concerns, and (3) introduction of stretching, massage, and products such as lubricants, vaginal dilators, and vibrators to enhance sexual function. The psychological intervention included participating in group discussions and counseling, participating in art activities facilitated by a clinical art therapist, reading poems, viewing movies and pictures related to the experience of other breast cancer survivors, and relaxing through abdominal breathing. The relational intervention focused on marital sexuality and communication skills using discussion, counseling, role play, and watching movies related to marital relationship. The contents were verified by an expert panel (breast surgeon, breast care nurse, women's health nursing professors, and clinical art therapist). The main themes of the sexual life reframing program consisted of relaxation (session 1), perception of problems (session 2), exposure (session 3), solving problems (session 4), acceptance (session 5), and reframing (session 6). Details on each session are depicted in Table 1.

Measures

MARITAL INTIMACY

Marital intimacy was measured by the Marital Intimacy Questionnaire,[23] translated and modified by Kim.[24] The Marital

Table 1 • The Sexual Life Reframing Program

Session	Themes	Content
1	Relaxation	Orientation and introductions
		Relaxation through abdominal breathing
		Expression of inner-self through drawing "myself picking apples"
		Facilitating expression of feelings after breast cancer thorough discussion
2	Perception of problems	Relaxation through abdominal breathing
		Expression through drawing my body
		Understanding potential and actual sexual problems through discussion
		Counseling and introducing sexual enhancement products
3	Exposure	Relaxation through abdominal breathing
		Expression of inner-self and relaxation through clay work
		Recognizing problems of communication and learning strategies for effective marital communication (eg, role play, discussion)
4	Solving problems	Relaxation through abdominal breathing
		Image expression of inner-self with collage artwork
		Exercise to facilitate sexual function (eg, stretching, massage)
		Sharing artwork by breast cancer survivors (eg, poems, drawings, photographs)
5	Acceptance	Relaxation through abdominal breathing
		Understanding myself through Mandala artwork
		Discussion of self-image, especially body image, through movies related to breast cancer
6	Reframing	Relaxation through abdominal breathing
		Expression through drawing my body
		Expression of thoughts and feelings about my reframed self and body
		Evaluation of program
		Certificates for participants

Intimacy Questionnaire contains 8 items scored on a 4-point Likert scale ranging from 1 (not at all) to 4 (very much), with higher scores indicating greater marital intimacy. Cronbach α was .89[23] and .92[24] in prior studies and .87 in this study.

BODY IMAGE

Body image was measured by the 3-item body image subscale from the Cancer Rehabilitation Evaluation System questionnaire (CARES).[25] As CARES was not available in the Korean language, permission was obtained from the developers, and the items were translated by the authors, verified by an expert panel, and piloted among 23 breast cancer survivors and modified for clarification before use in this study. A 5-point Likert scale ranging from 0 (not at all) to 4 (very much) was used, with higher scores indicating a more negative body image. Cronbach α was .83 in the original study[25] and .85 in this study.

SEXUAL FUNCTION

Sexual function consisted of sexual interest, dysfunction, and satisfaction and was measured as follows:

Sexual interest. Sexual interest was measured by the 4-item sexual interest subscale of CARES.[25] Higher scores indicate less sexual interest, and Cronbach α was .80 in the original study[25] and .76 in this study.

Sexual dysfunction. The sexual dysfunction subscale of CARES[25] contains 4 items, with higher scores indicating greater sexual dysfunction. Cronbach α was .88 in the original study[25] and .85 in this study.

Sexual satisfaction. Sexual satisfaction was measured by the sexual satisfaction scale developed for Korean women.[26] It consists of 17 items on a 4-point Likert scale (1 = not at all to 4 = always agree), with higher scores indicating greater sexual satisfaction. Cronbach α was .91 in the original study[26] and .96 in this study.

CHARACTERISTICS RELATED TO DISEASE AND SEXUAL LIFE

Data were also collected on disease characteristics and sexual life characteristics by self-report or medical chart information. Disease characteristics included cancer stage, method of surgery, time since surgery, radiotherapy, antihormone therapy, plans for breast reconstruction, and menstrual status before and after surgery. Characteristics related to sexual life included time of sexual intercourse resumed after surgery, frequency of sexual intercourse after surgery, and discomfort during sexual intercourse. Demographics included age, religion, occupation, educational level, and average income of family.

Data Analyses

Descriptive statistics were analyzed for demographics and characteristics of the participants and variables of the study. χ^2 Tests and Fisher exact tests were used for categorical variables, and the t test was used for continuous variables when testing differences between the intervention and the control group. The Kolmogorov-Smirnov test was used to test for the normal distribution of variables, and t tests were used for hypothesis testing of the differences in the pretest-posttest changes between the intervention and the control groups. The data were analyzed by SPSS (SPSS Inc, Chicago, Illinois).

■ Results

Participants' Characteristics

The experimental and control groups were similar in demographics and characteristics related to disease and sexual life at baseline (Table 2). The mean age of the women in the experimental group was 45.7 (SD, 6.4), years and that in the control group was 46.2 (SD, 6.9) years. Most participants had a religion (71%), were full-time housewives (80%), and had completed more than high school (76%). Monthly family income averaged 3 440 000 won (equivalent to US $2866), slightly lower than the urban average at the time.[27]

Most participants were at early stage (stages I or II) and had received mastectomy. The time since surgery was an average of 33.5 months. More than half of the participants had radiation therapy. Most participants were taking tamoxifen and had no plans for breast reconstruction. Most participants (71.1%) had regular menstrual cycles prior to treatment, but the majority (82.2%) was currently postmenopausal, with only a few in the remaining participants experiencing irregular cycles. In terms of sexual life characteristics, intercourse was resumed at 5 months after surgery with overall decreases in frequency. Two-thirds of the women noted discomfort during intercourse.

In examining the participants' demographics, there was no difference at baseline between the experimental group and the control group in regard to age ($t = -0.25$, $P = .81$), having religion ($\chi^2 = 0.18$, $P = .67$), being employed ($\chi^2 = 0.26$, $P = .72$), education ($\chi^2 = 4.57$, $P = .10$), and monthly family income ($t = 0.93$, $P = .36$). Also, there was no difference at baseline between the experimental group and the control group in regard to stage ($\chi^2 = 1.14$, $P = .57$), method of surgery ($\chi^2 = 1.59$, $P = .45$), time since surgery ($t = 1.52$, $P = .14$), radiotherapy ($\chi^2 = 0.54$, $P = .46$), antihormone therapy ($\chi^2 = 0.29$, $P = .70$), breast reconstruction plan ($\chi^2 = 0.22$, $P = .46$), preoperative menstrual status ($\chi^2 = 0.18$, $P = .67$), current menstrual status ($\chi^2 = 0.09$, $P = .14$), postoperative resumption of sexual intercourse ($t = 0.57$, $P = .57$), postoperative frequency of sexual intercourse ($\chi^2 = 0.12$, $P = .73$), and postoperative discomfort during sexual intercourse ($\chi^2 = 0.32$, $P = .57$).

The experimental and control groups were similar in marital intimacy ($t = 1.18$, $P = .25$), body image ($t = -0.95$, $P = .35$), sexual interest ($t = 0.07$, $P = .95$), sexual dysfunction ($t = 0.20$, $P = .85$), and sexual satisfaction ($t = -0.12$, $P = .90$) at baseline.

The Effect of the Sexual Life Reframing Program

There were slight improvements in marital intimacy, body image, and sexual interest after the 6-week intervention (Table 3). However, there were no statistically significant differences in marital intimacy ($t = 1.10$, $P = .29$), body image ($t = 1.60$, $P = .12$), and

Table 2 • Baseline Characteristics of the Experimental and Control Groups

Variables		Experimental (n = 22) n (%)	Experimental (n = 22) Mean (SD)	Control (n = 23) n (%)	Control (n = 23) Mean (SD)	χ^2 or t	P
Demographics							
Age, y	30–39	6 (27.3)	45.7 (6.4)	6 (26.1)	46.2 (6.9)		
	40–49	9 (40.9)		9 (39.1)		−0.25	.81
	50–59	7 (31.8)		8 (34.8)			
Religion	No	7 (31.8)		6 (26.1)		0.18	.67
	Yes	15 (68.2)		17 (73.9)			
Occupation	No	17 (77.3)		19 (82.6)		0.26[a]	.72
	Yes	5 (22.7)		4 (17.4)			
Education	≤9 y	3 (13.6)		8 (34.8)			
	High school	11 (50.0)		12 (52.2)		4.57	.10
	≥College	8 (36.4)		3 (13.0)			
Monthly family income[b]	≤200	3 (15.0)	386 (186)	12 (60.0)	302 (162)		
(10 000 won)	201–400	10 (50.0)		3 (15.0)		0.93	.36
	≥401	7 (35.0)		5 (25.0)			
Disease characteristics							
Stage	I	8 (36.4)		12 (52.2)			
	II	9 (40.9)		7 (30.4)		1.14	.57
	III	5 (22.7)		4 (17.4)			
Method of surgery	Lumpectomy	8 (36.4)		10 (36.4)			
	Unilateral mastectomy	13 (59.1)		10 (59.1)		1.59	.45
	Double mastectomy	1 (4.5)		3 (6.6)			
Time since surgery, mo	13–24	6 (27.3)	36.8 (14.1)	12 (52.2)	30.2 (14.7)		
	25–36	5 (22.7)		4 (17.4)		1.52	.14
	37–48	6 (27.3)		3 (13.0)			
	49–60	5 (22.7)		4 (17.4)			
Radiotherapy	No	11 (50.0)		9 (39.1)		0.54	.46
	Yes	11 (50.0)		14 (60.9)			
Antihormone therapy	No	4 (18.2)		3 (13.0)		0.29[a]	.70
	Yes	18 (81.8)		20 (87.0)			
Breast reconstruction plan	No	17 (77.3)		20 (87.0)		0.22[a]	.46
	Yes	5 (22.7)		3 (13.0)			
Preoperative menstrual status	Regular	15 (68.2)		17 (73.9)		0.18	.67
	Menopause	7 (31.8)		6 (26.1)			
Current menstrual status	Irregular	6 (27.3)		2 (8.7)		0.09[a]	.14
	Menopause	16 (72.7)		21 (91.3)			
Sexual life characteristics[b]							
Postoperative resumption of sexual intercourse, mo	≤3	9 (50.0)	5.3 (4.2)	10 (43.5)	4.6 (3.3)		
	4–6	3 (16.7)		9 (39.1)		0.57	.57
	7–12	6 (33.3)		4 (17.4)			
Postoperative frequency of sexual intercourse	Decrease	10 (55.6)		14 (60.9)		0.12	.73
	No change	8 (44.4)		9 (39.1)			
Postoperative discomfort during sexual intercourse	No	7 (38.9)		7 (30.4)		0.32	.57
	Yes	11 (61.1)		16 (69.6)			

[a]Fisher exact test.
[b]Missing responses excluded.

Table 3 • Group Differences in Marital Intimacy, Body Image, and Sexual Function

Variables		Experimental (n = 22) Mean (SD)	Control (n = 23) Mean (SD)	*t*	*P*
Marital intimacy	Pretest	22.79 (5.49)	20.91 (4.80)		
	Posttest	24.74 (3.63)	21.52 (4.59)		
	Difference[a]	1.95 (4.97)	0.61 (2.10)	1.10	.29
Body image	Pretest	1.95 (1.12)	2.29 (1.26)		
	Posttest	1.88 (1.21)	1.75 (1.18)		
	Difference[a]	−0.08 (0.88)	−0.54 (1.04)	1.60	.12
Sexual function					
Sexual interest	Pretest	1.61 (0.93)	1.59 (0.78)		
	Posttest	1.37 (0.87)	1.53 (0.73)		
	Difference[a]	−0.24 (0.59)	−0.06 (0.89)	−0.76	.45
Sexual dysfunction	Pretest	1.47 (1.31)	1.40 (1.07)		
	Posttest	1.39 (1.07)	1.53 (1.09)		
	Difference[a]	−0.08 (1.02)	0.13 (1.11)	−0.63	.53
Sexual satisfaction	Pretest	41.89 (13.63)	42.35 (10.37)		
	Posttest	47.16 (9.49)	38.96 (10.02)		
	Difference[a]	5.26 (8.99)	−3.39 (5.81)	3.77	<.001

[a]Posttest − pretest.

sexual interest ($t = -0.76$, $P = .45$) between the 2 groups. The experimental group showed improvements in sexual dysfunction and satisfaction scores after the intervention, whereas the control group showed worsened sexual dysfunction and satisfaction. However, only the change in sexual satisfaction was statistically significant between the 2 groups ($t = 3.77$, $P = <.001$).

■ Discussion

This study evaluated the effect of a 6-week sexual life reframing program on marital intimacy, body image, and sexual function (sexual interest, dysfunction, and satisfaction) among breast cancer survivors. The findings revealed that the program was effective in increasing sexual satisfaction.

In terms of marital intimacy, baseline scores in the experimental and control groups were in the middle range level (67%–71%) between the minimum and maximum scores. This was similar to that found in Yoo and Cho's study[28] of breast cancer survivors who had similar participant characteristics, especially of age and time since surgery. This study also found that after the sexual reframing program, changes within the experimental group were more positive than those in the control group, although they were not statistically significantly different. This result can be explained as a reflection of the dynamic nature of marital intimacy that changes continually between a husband and a wife.[29,30] Several studies[22,31,32] have suggested that couples' interventions are beneficial for promoting empathic communication and better adjustment to a range of health problems. Because of the lack of feasibility, however, husbands were not involved as part of the sexual reframing program, and thus, the program may not have had a strong impact on marital intimacy. Future programs may be more beneficial if expanded to include more content on marital relationship processes and if they considered husband involvement.

Body image scores at baseline were in the middle range in both groups and indicated more negative body images than American breast cancer survivors measured by the same instrument.[12] This may be due to the respondents in the study by Ganz and colleagues' being older women and at stage II in the 2 study periods (~1994–1995, ~1996–1997). Body image and age have been reported to be closely linked, especially for young premenopausal women who have been noted to report emotional suffering, a reduced quality of life, a loss of femininity due to fertility issues, and various sexual problems related to early induced menopause.[5,8,9,21] After the intervention, body image was better than at baseline in both groups, but these changes were not statistically different between the groups, and this may be due to several issues. The concept of body image includes various dimensions such as self-perception as well as the idea of self as seen by another person.[33] This intervention addressed the participants' body image in terms of accepting their own body. However, most studies measuring the body image of women reported no changes within 8 weeks in short-term measurements of body image.[31,34,35] Thus, the 6-week duration of the program may have been insufficient in impacting changes in the internal and external body images, and more intervention time may be required to improve body image.

The period after adjuvant treatment of breast cancer involves a shift from externalization to gradual internalization about feelings on the loss of the breast.[35] At this time, although patients may appear stable and able to accommodate the current situation, time is need to attend to and reflect on the internalized feelings of their loss.[36–38] Such ongoing processes may have been reflected in the participants' responses, although the women were encouraged to express their feelings on the loss of their breast throughout the intervention. Lastly, there may be issues related

to the instrument used. We used 3 questions from the psychosociological subscale of CARES to measure body image. But it is possible that this measure may not have adequately reflected the social and cultural meanings related to body image among Korean breast cancer survivors.

For sexual function, the sexual interest scores at baseline in both groups were also in the middle range and were very similar. Although we used the same instrument used by Ganz and colleagues,[12,39] the breast cancer survivors in their studies showed almost twice as much sexual interest as did women in our study. This difference can be due to differences in sample characteristics such as the patients in Ganz and colleagues' studies,[12,39] including patients with more advanced (stage III) breast cancer. Also, sociocultural influences such as the cultural belief that cancer is linked to death and the sociocultural context of sexuality may need to be considered. Attitudes toward sexuality based on traditional morals about sexuality in Korea, such as being shy, wanting to minimize sexual desire, wanting to keep sexuality secret, and not talking about sexuality, may have affected responses.[40] Although many breast cancer survivors may experience a change in sexual interest after treatment,[41] they seldom express concern because of the embarrassment and guilt associated with admitting to be thinking about sex.[38] With respect to the effect of the sexual life reframing program on sexual interest, there was no significant difference in the change between the 2 groups, even though scores increased after the intervention. Because sexual interest is an emotional issue, this result can imply that, for changes in the attitudes toward sexuality,[42] a longer intervention period may be required.

With respect to sexual dysfunction, scores at baseline were slightly higher than the median, which were similar to scores presented by Ganz and colleagues.[12,39] It appears that sexual dysfunctions such as less frequent intercourse and vaginal dryness are commonly experienced problems for breast cancer survivors and do not appear to be related to cultural differences. As for the effect of the sexual life reframing program on sexual dysfunction, the experimental group showed slight improvements, but the changes between the groups were not significantly different. In contrast, the control group's sexual dysfunction worsened after 6 weeks. The positive changes within the experimental group suggest that allowing for more time for the intervention may show significant results.

Finally, sexual satisfaction scores at baseline represented 62% to 63% of the maximum score and were slightly lower than those reported in the studies by Chang and colleagues[43] and Moon[44] of healthy married Korean women. The difference in scores can be understood by the fact that the participants of this study were breast cancer survivors. The 6-week intervention was effective in improving sexual satisfaction and supports its use in the clinical setting.

■ Limitations

This study was limited due to the small sample size that limits generalization of the study findings to a broader population. Second, as participants were between 1 and 5 years after adjuvant treatment, applying the sexual life reframing program developed from this study to women at diagnosis, during treatment, or within 1 year may give different results as the reframing process of sexual life may be different according to the conditions of breast cancer survivors. Furthermore, participants in the present study were homogeneous in terms of race and ethnicity, which may limit the generalizability of the findings. Lastly, although sexual adjustment after cancer treatment is a problem for breast cancer survivors as well as their husbands or partners, because of feasibility reasons, only breast cancer survivors were included in this study.

■ Conclusions and Implications

The 6-week sexual life reframing program was effective in increasing sexual satisfaction among breast cancer survivors. This study is meaningful as it was the testing of the first nursing intervention program developed to assist Korean breast cancer survivors to identify their sexual problems and reframe their sexual life. Although some findings were not statistically significant, this program has clinical significance as it provided an opportunity for the women to discuss their sexual issues, empowering breast cancer survivors by helping them to acknowledge any sexual problems and guiding them on ways to improve them. However, study findings showed that there was no evidence that it impacted marital intimacy, body image, sexual interest, and sexual dysfunction among breast cancer survivors. To better explore the effects of the sexual life reframing program, it may be necessary to use multiple measurements over a longer period, adjust the program length, involve the husband, and consider the use of alternative measures.

Although understanding and acknowledging women's cultural beliefs and values related to sexuality are essential in providing culturally sensitive nursing care, this study did not measure cultural characteristics about sexuality such as shame, concealment, passiveness, or reticence. This may be a limitation of the study, as mixed cultural factors may have affected the results. Future research incorporating cultural factors into the conceptual framework could elucidate how culture impacts sexuality, such as understanding the interplay of cultural beliefs with Korean women's sexual characteristics.

Despite the increased needs of breast cancer survivors, comprehensive sexual health care is often not offered, because of the lack of accessibility and application within the clinical practice. The sexual life reframing program developed in this study has an advantage as a short-term program that facilitates small-group dynamics that may lay the ground for further contacts by health care providers, leading to earlier recognition of sexual problems and active involvement for sexual health improvement for breast cancer survivors. As a program developed to better understand the sexual life issues among breast cancer survivors who may benefit from nursing intervention, the sexual life reframing program can also be applied to survivors' education or support group programs. Furthermore, nurses should provide information and support to women irrespective of sexual orientation and partnership status, because sexuality may be an equally important issue to survivors who do not have a partner.

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