

The Effect of Post-Operative Sexual Counseling Carried out with PLISSIT Model on Sexual Function and Sexual Satisfaction in Gynecologic Cancers

Çiğdem Bilge¹ , Ergül Aslan² 

¹ Mugla Sıtkı Kocman University, Health Science Faculty, Department of Obstetrics and Women's Health Nursing, Muğla, Türkiye.

² Istanbul University-Cerrahpaşa, Florence Nightingale Nursing Faculty, Department of Women's Health and Diseases Nursing, İstanbul, Türkiye.

Correspondence Author: Çiğdem Bilge

E-mail: cigdemaydinbilge@gmail.com

Received: 01.09.2022

Accepted: 17.04.2023

ABSTRACT

Objective: This study aims to determine the effect of sexual counseling on the sexual functions and sexual satisfaction of women who underwent surgical treatment due to gynecologic cancer.

Methods: The study sample consisted of 60 women (experimental group $n = 30$, control group $n = 30$) with ovarian, endometrial, and cervical cancer. The women in the experimental group received sexual counseling according to PLISSIT, while the women in the control group were not given sexual counseling but were monitored through routine follow-up. The Female Sexual Function Index (FSFI) and the Sexual Satisfaction Scale for Women (SSS-W) were used for the first and last evaluations of the groups.

Results: The mean age of the women in the experimental group was 51.87 ± 8.89 , while it was 50.47 ± 9.43 in the control group. There was no significant difference between the two groups in terms of sexual function and sexual satisfaction levels in the first evaluation ($p > .05$), whereas there was a significant difference between the two groups in the final evaluation after the sexual counseling provided to the experimental group ($p < .001$). When the first and final evaluations of the women were considered, it was observed that 33.3% of the women in the experimental group had adequate sexual functioning in the final evaluation.

Conclusion: The sexual counseling carried out using the PLISSIT model for women who were treated for gynecologic cancer positively affected their sexual function and sexual satisfaction levels.

Keywords: Cancer, gynecologic surgery, sexuality, sex counseling, sexual dysfunction

1. INTRODUCTION

Gynecological cancers are malignant tumors that occur in female genital organs and have an adverse effect on women's quality of life (1). Gynecologic cancer symptoms—such as vaginal bleeding, weakness, stomach pain, and postcoital bleeding—can negatively affect the pre-treatment sexual health of women. Furthermore, physical symptoms such as post-treatment vaginal shortness, reduced vaginal elasticity, reduced vaginal lubrication, vaginal stenosis, clitoridectomy, pelvic nerve injury, fistulas, weakness, diarrhea, sleep withdrawal, infertility, and postcoital bleeding negatively affect the sexual health of affected women (2). Female reproductive organs are symbols of productivity, sexuality, and motherhood for women; accordingly, the loss of these organs can be harmful to the body image of the affected woman and can cause a decrease in self-esteem (3). Surgical treatment, radiotherapy, or chemotherapy applied in gynecological cancers negatively impact the affected woman's reproductive capacity and body image (1-3). The aim of surgical treatment, which is a possible cancer treatment option, involves the

excision of the cancerous tissue, adjacent tissues, and nearby lymph nodes. In those cases in which cancer does not spread, surgery may be the only method of treatment (4).

Sexuality can be negatively affected by gynecological cancer diagnosis and treatment. Surgical procedures—such as the removal of the uterus and ovaries or the removal of the vulva tissue—can negatively influence the body image, self-esteem, and sexual lives of women (5). The removal of the upper part of the vagina after radical hysterectomy can cause sensory loss and dyspareunia due to nerve damage (6). Uterine contractions associated with orgasm often do not occur after total hysterectomy. The Scar tissue caused by surgery can prevent the vagina from expanding (7). The incision and nerve tissue damage caused by surgery may induce sexual reluctance and pain. The excision of the vagina or cervix leads to sexual arousal disorders (1, 6, 7). In addition to gynecological cancer treatment, the woman who has undergone surgery tries to regain her female identity, values, priorities, and her responsibilities as a sexual partner

(2). Therefore, support systems and consultancy services play important roles in eliminating anxiety and concerns as part of such a process (4, 8).

The PLISSIT model, one of the methods of incorporating the subject of sexuality into practice, is a widely used and easy-to-apply model. The PLISSIT model is a conceptual scheme for approaching the individual's current problems. With a four-level approach to the problem of each individual to evaluate sexuality, the P-LI-SS-IT model utilizes open-ended questions (4). The model entails cooperation with the individual, supports the patient's beliefs and value system, and adheres to the rules of understanding and respecting their decisions. Each phase of this model provides guidance for intervention and assessment for nurses with different levels of education. The phases of the model consist of P-Permission, LI-Limited Information, SS-Specific Suggestion, and IT-Intensive Therapy (4, 6, 9).

Providing sexual counseling for women who underwent surgical treatment due to gynecologic cancer and their partners during this process is an important factor that improves these women's quality of life (9). In the first counseling session, which is the most important step of sexual counseling, using models on sexual functions can be useful for the evaluation of sexual life (10). When evaluating a patient, a sexual consultant should approach the individual with a holistic perspective. Issues such as honesty, privacy, and confidentiality also need to be prioritized. Information shared by clients should be listened to sensitively, and interviews with clients should be conducted using a professional manner (3, 10). Individual and relational issues must also be prioritized when handling the client's sexual problems. The goal of the treatment is to increase the quality of the client's sexual life. In addition, systemic homework concerning sexual intimacy and fantasies may be assigned during the interviews (8). In the literature, the number of studies evaluating the results of sexual counseling applied to gynecological cancer patients is limited. With this study, the importance of sexual counseling applied to gynecological cancer patients is emphasized, and health professionals are aimed to be guided about sexual counseling.

1.1. Aim of the study

This study aims to determine the effect of sexual counseling carried out with the PLISSIT model on the sexual functions and sexual satisfaction of women who underwent surgical treatment due to gynecologic cancer.

Research Hypotheses

H₁: Sexual counseling contributes to the improvement of sexual functions.

H₂: Sexual counseling contributes to an increase in sexual satisfaction.

2. METHODS

2.1. Design

This is a randomized controlled single blind experimental study.

2.2. Participants/Sampling

The study was conducted in the Gynecological Oncology Outpatient Clinic of a university hospital in Istanbul from March 2015 to March 2017. The study sample included women who had undergone surgery after having been diagnosed with ovarian, endometrial, or cervical cancers and who met the inclusion criteria. The study sample size for this research was calculated using the G*Power 3.1 power analysis program. In the G*Power analysis, calculations were made based on Nho's study results related to Female Sexual Function Index mean values (9). In the statistical analysis carried out using the results of the current study, the alpha (α) reliability coefficient and power were determined as .05 and 80%, respectively. As a result of the analysis, it was ascertained that 28 women for the experimental group and 25 women for the control group should be sampled. Considering possible losses during the study process, it was decided that the two study groups should include 30 participants.

The study sample comprised 18–65-year old women who underwent a surgery due to a diagnosis of endometrial, ovarian, and cervical cancer, who had completed at least one month after the post-operative coitus permission had been given, who were in the post-operative fourth month, and who had had experienced a regular sex life before their surgery. Women who were receiving chemotherapy, radiotherapy, brachytherapy, or chemoradiotherapy, who were diagnosed with gynecological cancers other than endometrial, ovarian, and cervical cancer ones, who had stage IV cancer, who had undergone additional operations such as colostomy or urostomy, who were sexually inactive, and whose partners had sexual dysfunction were excluded from the current study.

2.3. Randomization

The women were assigned to the experimental and control groups using numbers obtained from the website 'random.org.' The numbers were written individually—in accordance with the table of random numbers—and put in sealed envelopes to ensure blinding. The envelopes were administered by a secretary who was not related to the study to the women who were accepted to the outpatient clinic by appointment and who met the inclusion criteria after which they were directed to the researcher. The researcher, who knew which group the numbers were in, opened the envelope and carried out the research steps based on the group to which the women were assigned. Appointments were given to the participants so that they did not interact with each other. The interviews were held in a private room.

2.4. Data Collection Tools

2.4.1. Patient identification form

This form was prepared by the researchers and comprised 13 questions on participants' sociodemographic characteristics, general health history, and gynecologic cancer treatment.

2.4.2. Sexual history questionnaire

This questionnaire was prepared by the researchers to determine women's sexual health, sexual life characteristics, and sexual problems.

2.4.3. Female Sexual Function Index (FSFI)

This index was developed by Rosen et al. in 2000 to evaluate female sexual functions and consists of 19 items (11). The Turkish validity and reliability analysis of the scale was conducted by Oksuz and Malhan (2005), and the Cronbach's alpha coefficient of the scale was determined as .95, while the test-re-test reliability was determined as .75-.95 (12). The FSFI evaluates sexual functions or problems experienced within last four weeks. The index includes six subscales: desire, arousal, lubrication, orgasm, satisfaction, and pain. Each of the subscales are scored from one to six points, and the total score possible ranges from 2 to 36. Higher scores indicate more sufficient sexual functions (11). An FSFI total score of 26.55 or less signifies sexual dysfunction in women (13). In this study, the internal consistency coefficients of the measurements obtained from the FSFI ranged from .91 to .99 in the subscales, and the coefficient was $\alpha = .99$ for the total scale.

2.4.4. Sexual Satisfaction Scale for Women (SSS-W)

The SSS-W was developed by Meston and Trampnell in 2005 and includes 30 questions (14). The Turkish validity and reliability analysis of the scale was conducted by Abali and Aslan (15). This five-point Likert-type scale is composed of five subscales: satisfaction, communication, compatibility, anxiety regarding the relationship, and personal anxiety. Each subscale is scored from 6 to 30 points. The total score of the scale is calculated using the satisfaction + communication + compatibility + (relational anxiety + personal anxiety/2) formula. The total score possible on this scale ranges from 30 to 150 points, and it has no breakpoint. Higher scores indicate higher sexual satisfaction levels (14). In this study, the internal consistency coefficients of the measurements obtained from the SSS-W ranged from .66 to .95 for the subscales and $\alpha = .91$ for the total scale.

2.5. Ethical Considerations

The ethical approval for this study was obtained from Istanbul Medipol University Clinical Research Ethics Committee (number: 108400987-77, date: 12/02/2015). Before this study was carried out, written permission was obtained from the faculty management. Additionally, written

consent was obtained from all individuals to document their agreement to participate in this study. While the study was being conducted, considerable attention was paid to ensure that the women's hospital procedures were not hindered. The study was performed in accordance with the "Ethical principles for medical research involving human subjects" of the Helsinki Declaration.

2.6. Data Collection

In the health institution where the study was conducted, sexual intercourse prohibition is imposed on patients who have undergone gynecological oncological surgical treatment until their first control visit. To collect the data, a total of 75 women, who had undergone surgical treatment and were diagnosed with endometrial, ovarian, and cervical cancer, were included in the study. Two of these women were referred to the Department of Psycho-Oncology, Istanbul University, Faculty of Medicine because they had previous sexual trauma. Eight women were excluded from the sample due to the initiation of chemotherapy, brachytherapy, radiotherapy, or chemoradiotherapy after surgery. Five women did not want to continue participating in the study. In accordance with the sample selection criteria, a total of 60 women were included in the sample for the experiment (30 women) and control (30 women) groups. The data collection tools were applied during the first evaluation and the last evaluation, which was carried out after 16 weeks. All interviews and sexual counseling sessions performed with the experimental and control groups were completed in a pre-determined special room through face-to-face interview sessions, each of which lasted 45 minutes. Interviews with the participants in the experimental group were carried out outside of the routine examination hours to prevent the groups from interacting with one another. The data from the experimental and control groups were collected by the same researcher. In addition, the sexual counseling interviews with the experimental group were made by the researcher who received Sexual Therapy Training.

2.7. Interventions and Procedures:

The interviews were conducted five times with the experimental group and twice (first and last interview) with the control group. In the first interview, "the Patient identification form, Sexual history questionnaire, FSFI, and SSS-W" were applied to all women. After the first interview, three more interviews were held for sexual counseling sessions with the experimental group. In the second interview, the 'Permission' phase of the PLISSIT model was completed by allowing the woman to express her feelings openly. An interval of one week was given between the second and third interviews with the experimental group. During the third interview, the women were informed about the effects of cancer and treatment on sexual functions and sexual health. At this stage, the women were given homework and special suggestions. The fourth interview was applied two weeks after the third interview for the implementation of

homework and special suggestions in the third interview, and the last step of the sexual counseling session was completed in this interview.

In studies conducted in the literature to determine the effectiveness of sexual counseling, patients were re-evaluated 4 months after counseling (9, 16). In line with the literature, 4 months after the first interview, the FSFI and SSS-W were re-administered to the experimental and control groups (last interview), with each session lasting an average of 45 minutes.

2.8. Analysis

Cronbach's alpha internal consistency coefficients were calculated to evaluate the reliability of the scales used in this study. Descriptive statistics (numbers, percentages, means, and standard deviations) were used to analyze the patients' sociodemographic characteristics and sexual history data. Independent *t*-test was used to compare the experimental and control group results that were obtained from the measurement tools. In this study, the statistical significance level was determined to be $p < .05$ at a 95% confidence interval.

3. RESULTS

In the study, the mean age of the experimental group (EG) and control group (CG) (EG: 51.87 ± 8.89 ; CG: 50.47 ± 9.43 years), the mean age of their partners (EG: 55.63 ± 9.66 ; CG: 55.40 ± 10.26 years), the number of their deliveries (EG: 2.46 ± 1.14 ; CG: 2.97 ± 1.23), and the mean duration of their marriages (EG: 30.73 ± 11.61 ; CG: 29.77 ± 11.60 years) were similar. According to the results, no statistically significant difference was found between the groups in terms of the type of cancer (EG: 66.7% with endometrial cancer, 20% with ovarian cancer, and 13.3% with cervical cancer; CG: 50% with endometrial cancer, 23.3% with ovarian cancer, and

26.7% with cervical cancer) ($p > 0.05$). Additionally, bilateral salpingo-oophorectomy (EG: 90%; CG: 80%) was applied to the majority of women ($p > 0.05$).

The current study found that the women in the experimental group and control group experienced lack of sexual desire (EG: 83.3%; CG: 90%), delayed arousal (EG: 43.3%; CG: 23.3%), and vaginal dryness (EG: 86.7%; CG: 90%). Almost half (43.3%) of the women in both groups stated that they felt pain during sexual intercourse. In addition, the majority of the women (75%) in both groups stated that they could not achieve orgasm (EG: 73.3%; CG: 76.7%), and that they experienced sexual dissatisfaction (EG: 83.3%; CG: 90%) (Table 1).

Table 1. Characteristics of the sexual lives of the groups after surgical treatment

	Groups	All Groups	Experimental Group (n=30)		Control Group (n=30)		X ²	p
		%	n	%	n	%		
Desire	Normal	13.3	5	16.7	3	10	0.577	.353 ^f
	Lack of desire	86.7	25	83.3	27	90		
Arousal	Delayed	58.3	13	43.3	7	23.3	7.560	.023*
	Normal	25	3	10	12	40		
Vaginal Dryness	Reduced lubrication	75	26	86.7	27	90		
	Normal	11.7	4	13.3	3	10		
Problem in Sexuality	Painful sexual intercourse	43.3	14	46.7	14	46.7	1.646	.439
	Contraction in the vagina	41.7	11	36.7	14	46.7		
	Normal	58.3	5	16.7	2	6.7		
Orgasm	Yes	25	8	26.7	7	23.3	0.317	.573
	No	75	22	73.3	23	76.7		
Satisfaction	Normal	13.3	5	16.7	3	10	0.577	.448
	Insufficient	86.7	25	83.3	27	90		

* $p < .05$; ^fFisher's Exact Test; X²= Pearson Chi-Square Test

Table 2. Female sexual function index scores in the first and last evaluation

FSFI	First evaluation				Last evaluation			
	Experimental Group (n=30)	Control Group (n=30)			Experimental Group (n=30)	Control Group (n=30)		
	Mean±SD	Mean±SD	t	p	Mean±SD	Mean±SD	t	p
Desire	1.22±0.11	1.36±0.63	1.201	.239	3.52±0.96	2.18±1.00	5.301	.000*
Arousal	0.0±0.0	0.24±0.93	1.418	.167	3.70±1.08	2.50±1.18	4.102	.000*
Lubrication	0.0±0.0	0.26±1.07	1.337	.192	3.42±1.07	1.92±1.26	4.959	.000*
Orgasm	0.0±0.0	0.31±1.18	1.426	.164	3.89±1.03	2.41±1.33	4.829	.000*
Satisfaction	0.80±0.0	1.07±1.02	1.439	.161	4.63±1.24	2.71±1.14	6.228	.000*
Pain	0.0±0.0	0.23±0.94	1.324	.196	3.52±1.10	1.77±1.39	5.385	.000*
Total Score	2.02±0.11	3.46±5.63	1.400	.172	22.68±6.14	13.49±6.97	5.417	.000*

* $p < .001$; t=Independent Samples *t* test

In the first evaluation, no statistically significant difference was found between the FSFI scores of the groups ($p > .05$). However, there was an increase in both groups' FSFI scores in the last evaluation, and the increase in the experimental group was highly statistically significant compared to the control group ($p < .001$). Considering the FSFI cut-off point as 26.55, 33.3% of the women in the experimental group had sufficient sexual function based on the last evaluations (Table 2).

In the first evaluation, the sexual satisfaction levels of women in both groups were found to be similar ($p > .05$), with the exception of the Anxiety–Personal subscale ($p < .05$). However, in the last evaluation, the sexual satisfaction level of the women in the experimental group was higher than those in the control group, and this difference was statistically highly significant ($p < .001$) (Table 3).

Table 3. Sexual satisfaction scale for women scores in the first and last evaluation

SSS-W	First evaluation				Last evaluation			
	Experimental Group (n=30)		Control Group (n=30)		Experimental Group (n=30)		Control Group (n=30)	
	Mean±SD	Mean±SD	t	p	Mean±SD	Mean±SD	t	p
Satisfaction	12.50±2.27	13.37±2.76	1.328	.189	21.60±2.63	14.53±3.84	8.313	.000**
Communication	18.57±4.57	19.43±4.42	0.746	.458	23.37±1.43	20.23±3.77	4.262	.000**
Compatibility	20.03±3.34	19.03±3.99	1.053	.296	23.20±1.06	20.17±3.24	4.874	.000**
Anxiety-Relational	13.87±2.46	14.17±2.38	0.480	.633	22.00±2.17	15.23±3.86	8.379	.000**
Anxiety-Personal	15.00±2.26	16.40±2.31	2.371	.021*	24.50±0.57	16.97±3.36	12.114	.000**
Total Score	79.97±9.97	82.40±12.0	0.854	.397	114.67±6.21	87.13±15.52	9.022	.000**

* $p < .05$; ** $p < .001$ t=Independent Samples t test

Table 4. Comparison of groups' sexual functions in the first and last evaluation

Sexual functions	Frequency	Groups				X ²	p
		Experimental (n=30)		Control (n=30)			
		n	%	n	%		
Frequency of Sexual Intercourse in the First Evaluation	Several times in a week	8	26.7	6	20.0	0.373	.542
	Every other week or less	22	73.3	24	80.0		
Frequency of Sexual Intercourse in the Last Evaluation	Several times in a week	30	100.0	14	46.7	21.818	.000***f
	Every other week or less	0	0.0	16	53.3		
Duration of Sexual Intercourse in the First Evaluation	10 minutes or less	14	46.7	12	40.0	0.271	.602
	11 minutes and above	16	53.3	18	60.0		
Duration of Sexual Intercourse in the Last Evaluation	10 minutes or less	0	0.0	21	70.0	32.308	.000***
	11 minutes and above	30	100.0	9	30.0		
Intimacy with Partner in the First Evaluation	Good level	21	70.0	27	90.0	3.750	.052 ^f
	Insufficient	9	30.0	3	10.0		
Intimacy with Partner in the Last Evaluation	Good level	30	100.0	12	40.0	25.714	.000***f
	Insufficient	0	0.0	18	60.0		

*** $p < .001$; f=Fisher's Exact Test

Table 4 shows the comparison of the sexual function characteristics of both groups in the first and last evaluation. In the first evaluation, no statistically significant difference was found between the groups in terms of the frequency of sexual intercourse ($p > .05$); however, in the last evaluation, a highly statistically significant difference was determined between the two groups ($p < .001$).

4. DISCUSSION

This study shows the effect of sexual counseling, carried out using the PLISSIT model, on female sexual function and satisfaction in women treated for gynecologic cancers. The results of this study are important as they contribute to

the literature on sexual counseling in gynecologic cancers by providing evidence through a prospective randomized controlled research design.

Kennedy et al. (2015) carried out a study with 499 women with cancer to evaluate their sexual function and activity, and they found that 40.9% had endometrial cancer, 15.1% had ovarian cancer, and 15.1% had cervical cancer (17). Another study carried out with 181 gynecologic cancer patients to determine the psychometric validity of the FSFI revealed that 45.5% of the participants had endometrial cancer, 22.7% had ovarian cancer, and 27.3% had cervical cancer (16). In the current study, which was conducted in line with the literature, it was determined that 58.3% of participants had endometrial cancer, 21.7% had ovarian cancer, and 20% had cervical cancer.

The literature has shown that potential contributors to the worsening of the psychosexual health among gynecological cancer patients include physical changes in the vaginal regions, cancer adjuvant therapy, the development of a cancer-related pain, and depressive symptoms (1, 3, 4, 9, 10). The presence of any of these risk factors may be indicative of underlying sexual dysfunction. In this study, it was found that 86.7% experienced lack of sexual desire, 58.3% of the participants experienced delayed arousal, 75% experienced reduced lubrication, 43.3% experienced painful sexual intercourse, 75% experienced difficulty having an orgasm, and 86.7% experienced insufficient sexual pleasure (Table 1). When the literature is examined, some studies have arrived at similar results (3, 9, 17, 18).

Health professionals can provide effective and comprehensive care to gynecological cancer patients and their families if they fully understand the physical, emotional, social, and spiritual experiences of these women. The current study applied sexual counseling sessions based on the PLISSIT model after gynecologic surgery, and the study participants were evaluated with the FSFI and SSS-W both before and after the counseling sessions. Similar to the findings from the literature, this study showed that there was an increase in the sexual function levels (Table 2) of women who received post-operative sexual counseling. In agreement with previous studies in the literature, it was observed in this study that the level of sexual satisfaction of the women who were given sexual counseling in the experimental group increased significantly after the counseling according to the findings of the first and the final evaluation (Table 3). When the literature is examined, the results of randomized controlled studies show that there was no statistically significant difference between the two groups in terms of baseline sexual function, but after sexual counseling, it was significantly higher in the experimental group than the control group after intervention (7, 19, 20). The results of the current study are in compliance with the literature.

Sexual counseling is an activity that is important in maintaining both the overall and the sexual quality of life for many couples. Sexual counseling is recognized as an important aspect of care by the World Health Organization, and efforts are in progress to better understand the elements, implementation, and outcomes for sexual counseling as delivered by health care providers. In this study, sexual counseling was planned based on the PLISSIT model in order to reduce the sexual problems of the participants and to improve their sexual problem-solving skills. Sexual counseling was given to each patient in the experimental group through individual face-to-face interviews, and the sexual satisfaction levels of the women participating in the study were also examined. As a result of the study, it was determined that the frequency and duration of sexual intercourse increased in the experimental group compared to the control group. In addition, it was observed that the experimental group had better intimacy with their partners (Table 4). The results of the study are in parallel with the literature (21-23).

Strengths of the Study

- The study used a randomized controlled single blind experimental research design.
- The study utilized a method that is used in consulting work.
- Educational material was developed and used in the study.
- The study was conducted in a tertiary hospital, which accepted the highest number of gynecological patients of all hospitals in Turkey.

Study Limitations

- Partners of the participants were excluded from the study.
- Longer term results of sexual counseling were not evaluated.
- Cases directed to the expert therapist were not followed-up.

5. CONCLUSION

Sexual counseling carried out using the PLISSIT model for women being treated for gynecologic cancer significantly positively affected their sexual function and sexual satisfaction levels. Compared to the women in the control group, a positive change was seen among the participants in the experimental group who had undergone sexual counseling in regard to all stages of sexual functions, sexual satisfaction, frequency and duration of sexual intercourse, and intimacy with their partners. According to FSFI total cut-off points, although sexual dysfunction continued in both groups, it was eliminated in one-third of the women in the experimental group. It is recommended that future studies in the field include partners in counseling sessions, use different models, and carry out long-term follow-ups.

Acknowledgments:

We would like to thank to Prof. Dr. Samet TOPUZ and the personnel of the Oncology Clinic in which the study was carried out for their support in planning and execution of this study.

Funding:

The author(s) received no financial support for the research.

Conflicts of interest:

The authors declare that they have no conflict of interest.

Ethics Committee Approval:

This study was approved by Clinical Research Ethics Committee of Istanbul Medipol University (approval date 12.02.2015 and number 108400987-77)

Peer-review:

Externally peer-reviewed.

Author Contributions:

Research idea: ÇB

Design of the study: ÇB, EA

Acquisition of data for the study: ÇB

Analysis of data for the study: ÇB

Interpretation of data for the study: ÇB

Drafting the manuscript: ÇB, EA

Revising it critically for important intellectual content: EA
Final approval of the version to be published: ÇB, EA

REFERENCES

- [1] Souza DC, Santos AVSL, Rodrigues ECG, Dos Santos MA. Experience of sexuality in women with gynecological cancer: meta-synthesis of qualitative studies. *Cancer Invest.* 2021;39(8):607-620. DOI: 10.1080/07357.907.2021.1912079.
- [2] Serçekuş AP, Partlak GN, Göral TS, Özkan S. Sexuality in muslim women with gynecological cancer. *Cancer Nurs.* 2020;43(1):E47-E53. DOI:10.1097/NCC.000.000.0000000667.
- [3] Yarandi F, Montazeri A, Shirali E, Mohseni M, Fakehi M, Ghaemi M. Sexual quality of life in gynecological cancer survivors in Iran. *Asian Pac J Cancer Prev.* 2021;22(7):2171-2175. DOI: 10.31557/APJCP.2021.22.7.2171.
- [4] Driessen KAJ, Rooij DBH, Vos MC, Boll D, Pijnenborg JMA, Hoedjes M, Beijer S, Ezendam NPM. Cancer-related psychosocial factors and self-reported changes in lifestyle among gynecological cancer survivors: Cross-sectional analysis of profiles registry data. *Support Care Cancer* 2022;30(2):1199-1207. DOI: 10.1007/s00520.021.06433-0.
- [5] Huang HY, Tsai WC, Chou WY, Hung YC, Liu LC, Huang KF, Wang WC, Leung KW, Hsieh RK, Kung PT. Quality of life of breast and cervical cancer survivors. *BMC Womens Health* 2017;17(1):30-33. DOI:10.1186/s12905.017.0387-x.
- [6] Kumar A, Nesbitt KM, Bakkum-Gamez JN. Quality improvement in gynecologic oncology: Current successes and future promise. *Gynecol Oncol.* 2019;152(3):486-491. DOI:10.1016/j.ygyno.2018.10.046.
- [7] Parsa P, Tabesh RA, Soltani F, Karami M. Effect of group counseling on quality of life among postmenopausal women in Hamadan, Iran. *J Menopausal Med.* 2017;23(1):49-55. DOI: 10.6118/jmm.2017.23.1.49.
- [8] Stabile C, Goldfarb S, Baser RE, Goldfrank DJ, Abu-Rustum NR, Barakat RR, Dickler MN, Carter J. Sexual health needs and educational intervention preferences for women with cancer. *Breast Cancer Res Treat.* 2017;165(1):77-84. DOI:10.1007/s10549.017.4305-6.
- [9] Nho JH. Effect of PLISSIT model sexual health enhancement program for women with gynecologic cancer and their husbands. *J Korean Acad Nurs.* 2013;43(5):681-689. DOI:10.4040/jkan.2013.43.5.681.
- [10] Tuncer M, Oskay ÜY. Sexual counseling with the PLISSIT Model: A systematic review. *J Sex Marital Ther.* 2022;48(3):309-318. DOI:10.1080/0092623X.2021.199.8270.
- [11] Rosen R, Brown C, Heiman J, Leiblum S, Meston C, Shabsig R, Ferguson D, D'Agostino R. The Female Sexual Function Index (FSFI): A multidimensional self-report instrument for the assessment of female sexual function. *J Sex Marital Ther.* 2000;26(2):191-208. DOI:10.1080/009.262.300278597.
- [12] Öksüz E, Malhan S. Kadın Cinsel Fonksiyon İndeksi Türkçe uyarlamasının geçerlilik ve güvenilirlik analizi. *Sendrom* 2005;17(7):54-60. (Turkish).
- [13] Wiegel M, Meston C, Rosen R. The Female Sexual Function Index (FSFI): cCross-validation and development of clinical cutoff scores. *J Sex Marital Ther.* 2005;31(1):1-20. DOI: 10.1080/009.262.30590475206.
- [14] Meston C, Trapnell P. Development and validation of a five-factor sexual satisfaction and distress scale for women: the Sexual Satisfaction Scale for Women (SSS-W). *Sex Med.* 2005;2(1):66-81. DOI: 10.1111/j.1743-6109.2005.20107.x.
- [15] Abali CS, Aslan E. Validity and reliability of the Turkish version of the Sexual Satisfaction Scale for Women. *Sexuality & Culture* 2018;22:881-893. DOI:10.1007/s12119.018.9499-1.
- [16] Marchand GJ, Meassick KS. Advanced sexual counseling and how to ask patients about "intimate disclosure". *Int J Womens Health.* 2020;12:1105-1108. DOI:10.2147/IJWH.S256250.
- [17] Kennedy V, Abramssohn E, Makelarski J, Barber R, Wroblewski K, Tenney M, Lee NK, Yamada SD, Lindau ST. Can you ask? We just did! Assessing sexual function and concerns in patients presenting for initial gynecologic oncology consultation. *Gynecol Oncol.* 2015;137(1):119-124. DOI: 10.1016/j.ygyno.2015.01.451.
- [18] Baser RE, Li Y, Carter J. Psychometric validation of the Female Sexual Function Index (FSFI) in cancer survivors. *Cancer* 2012;118(18):4606-4618. DOI: 10.1002/cncr.26739.
- [19] Tucker PE, Bulsara MK, Salfinger SG, Tan JJ, Green H, Cohen PA. Prevalence of sexual dysfunction after risk-reducing salpingo-oophorectomy. *Gynecol Oncol.* 2016;140(1):95-100. DOI:10.1016/j.ygyno.2015.11.002.
- [20] Ye S, Yang J, Cao D, Zhu L, Lang J, Chuang LT, Shen K. Quality of life and sexual function of patients following radical hysterectomy and vaginal extension. *J Sex Med.* 2014;11(5):1334-1342. DOI: 10.1111/jsm.12498.
- [21] Chun N. Effectiveness of PLISSIT model sexual program on female sexual function for women with gynecologic cancer. *J Korean Acad Nurs.* 2011;41(4):471-480. DOI:10.4040/jkan.2011.41.4.471.
- [22] Malakouti J, Golizadeh R, Mirghafourvand M, Farshbaf-Khalili A. The effect of counseling based on ex-PLISSIT model on sexual function and marital satisfaction of postpartum women: A randomized controlled clinical trial. *J Educ Health Promot.* 2020;30(9):284-289. DOI: 10.4103/jehp.jehp_168_20.
- [23] Khakbazan Z, Daneshfar F, Behboodi-Moghadam Z, Nabavi SM, Ghasemzadeh S, Mehran A. The effectiveness of the permission, limited information, specific suggestions, intensive therapy (PLISSIT) model based sexual counseling on the sexual function of women with multiple sclerosis who are sexually active. *Mult Scler Relat Disord.* 2016;8:113-119. DOI: 10.1016/j.msard.2016.05.007.

How to cite this article: Bilge Ç, Aslan E. The Effect of Post-Operative Sexual Counseling Carried out with PLISSIT Model on Sexual Function and Sexual Satisfaction in Gynecologic Cancers. *Clin Exp Health Sci* 2023; 13: 623-629. DOI: 10.33808/clinexphealthsci.1169795