



Sexual Experience of Women After Pelvic Radiotherapy for Cervical Cancer

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OBJECTIVE

Study was designed to assess sexual experience, thoughts, and problems of women who have been treated with pelvic radiotherapy for cervical cancer.

METHODS

Seventeen sexually active patients who received minimum 3-month course of pelvic radiotherapy between March 20, 2014 and June 20, 2014 gave consent to participate in the study. Sexual life before cancer diagnosis and effects of treatment on sexual life were assessed with semi-configured score scale created by research group.

RESULTS

Main diagnostic finding was post-coital and post-menopausal bleeding, and vaginal stricture, vaginal dryness, and decreased sexual desire in partner or patient were primary sexual problems reported.

CONCLUSION

Health professionals should be aware of these effects and should encourage patients to express their problems and provide effective, individual counsel to each patient.

Keywords: Cervical cancer; pelvic radiotherapy; sexual life.

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Introduction

Cervical cancer is the second most common cancer type among women globally, and ranking third as cause of death after breast and lung cancer. Cervical cancer is the eighth most common cancer type in Turkey and death ratio is ranked as tenth.[1]

According to Turkish cancer statistics in 2009, cervical cancer incidence seen in women in Turkey has the ratio of 4.5/100,000.[2]

Sexual relations which is one of the most important element of life quality, includes the following concepts;

being desirable, being able to reproduce, body image as well as emotional, intellectual and socio-cultural elements. There are many factors such as psychology, sociology and many more that effects the individuals with cancer or during the treatment in multiple ways.[1]

Cancer diagnosis and treatments are negatively effecting individual's sexual functionalities as well as sexual health. Therefore, in terms of cancer diagnosis and individual meaning of the diagnosis, sexual lives of cancer patients are negatively affected from physical effects of treatment and variation of treatment in short and long term.[1]

Cancer diagnosis and treatments are causing important health problems that are negatively affecting individuals' sexual functionalities as well as sexual health. Invasive cervical cancers are treated with radical hysterectomy in a surgical way. Menopausal complaints such as heat complaints, oofectomy, vaginal dryness are significantly effecting sexual functions. 50% of patients that are receiving an early cervical cancer treatment experience significant decrease in sexual activities in addition to exhaustion, depression, gaining weight, anxiety and dyspareunia. At the same time treatments such as hysterectomy and radiotherapy are causing important health problems by negatively affecting body image of woman, individual respect and sexual life with her partner.[3] The study of De Frank et al.[4] states that there are various changes such as weight loss, hair loss and scar tissues, due to cancer and after cancer that are negatively effecting body image of women.[5]

Radiotherapy in cervical cancer is applied as intracavitary (Brachytherapy) or externally according to patients' general health status, type of cancer and intensity of cancer. Radiotherapy use in treatment causes significant and continuous changes in woman's sexuality and fertility. Radiation dose applied during the treatment stops the functionalities of ovaries and causes permanent sterility.[3]

After radiotherapy in vagina epithelium; inflammation, mucosal atrophy, elasticity loss and ulceration in vaginal tissue can be observed. As a result of traumas caused by the radiation on vagina epithelium; reduction in vaginal lubricity, dryness, stenosis in vagina canal and shortening in length are observed. These changes in vagina increase the risk of infection and trauma. Vaginal changes can be observed in first 3 months and continue for almost a year.[6,7] Woman who undergo radiotherapy generally complain about decrease in vaginal sensitivity and orgasm capacity, decrease in vaginal elasticity and dyspareunia. In a definitive study on this subject, it is identified that 40% of woman with sexually active life complain about dyspareunia and 50% of woman with sexually active life complain about decrease in vagina length.[6]

In the study of White et al. on 60 women who undergo radiotherapy, it is found that 42% of women have experienced vaginal toxicity due to radiotherapy. It is established that vaginal bleeding during sexual intercourse has increased 17 times after radiotherapy. It is found that 15.9% experiences vaginal stenosis and decrease in the length of vagina and 13% experienced vaginal dryness after radiotherapy. 32.2% of women immediately experienced vaginal symptoms, 55.5%

experienced 6 months after the treatment and 48.2% experienced 12 months after the treatment.[8]

In a similar study of Freeman and Graves (1982) they found that the most common problem woman who had radiotherapy due to cervical cancer, experiences decrease in desire/lust, dyspareunia, difficulty in penetration and difficulty of orgasm.[3]

In quantitative studies in literature on woman who had radiotherapy due to cervical cancer, generally evaluates sexual functions. Qualitative researches on partner effects and consultancy requirements of patients with cervical cancer and radiotherapy treatment are limited.

Identifying patient experiences and consultancy needs of patients who have cervical cancer and got a treatment could be beneficial for problem based effective consultancy.

Purpose:

This study is structured to determine the sexual life experiences, thoughts and problems of women who has pelvic radiotherapy.

Materials and Methods

This study is a qualitative phenomenological study on woman who have applied to Cerrahpaşa Medical University, Gynaecology and Obstetrics Department, Gynaecologic Oncology Unit in İstanbul between 22 April–20 June 2014.

The subjects of the study are 17 women with active sexual life and willing to participate the study who have applied to İstanbul Cerrahpaşa Medical University, Gynaecology and Obstetrics Department, Gynaecologic Oncology Unit at least 3 months after pelvic radiation treatment and who applied the clinic for control. To collect data semi-structured interview forms are developed by researchers that questions effects of sexual relations after pelvic radiotherapy due to cervical CA diagnosis and these surveys are used and questionnaire questions asked are shown in Table 1. Participants are interviewed in a silent and calm room in Gynaecology and Oncology Department polyclinic. Interviews are recorded by the researcher. Each participant interviewed for 45–60 minutes, then the obtained data is coded and themes are created using content analysis method. These themes consist of the following; what were the symptoms of the disease and how it was diagnosed, behaviour of the husband during disease and treatment process, sexual life before the disease, sexual problems due to disease and treatment, effect of the

Table 1 Specified theme and response of participants	
Specified theme	Response
Sexual life before cancer diagnosis	Pain after every intercourse Bleeding after intercourse Not enjoying the intercourse Not having orgasm
Cancer symptoms and how it is diagnosed	Excessive vaginal bleeding Bleeding after menopause Routine gynaecologic examination Bleeding after intercourse Excessive pubic pain Biopsy and smear test
Sexual problems due to radiotherapy	Sexual unwillingness Excessive pain during intercourse Narrowness feeling in vagina Shortening in length of vagina Bleeding during intercourse Fear of intercourse Dissatisfaction Not having orgasm Vaginal dryness Not enjoying the intercourse Feeling intercourse as mandatory duty
Fear for sexual intercourse due to disease	Possibility of repetition of cancer Not feeling like a woman Feeling diseased Felling sexuality is over Thinking that intercourse is not possible after the operation
The most effective events on sexual life	Fear of pain Vaginal dryness/narrowness Weakness, tiredness Old age Decrease in sexual unwillingness Feeling despair due to cancer
Husband behaviour in cancer diagnosis and during treatment process	Did not effected, he was comfortable He always tried to be supportive He was devastated He was always there for support He sorry that we won't be able to have children
Husbands behaviour after cancer treatment	Did not get effected Waited for treatment process Left me for cancer Feeling nervous in sexual intercourse He thinks that he will harm me during intercourse
Having support for sexual problems	I haven't shared with anyone I am ashamed to talk about the subject I didn't want any information I didn't feel it was important

disease on husbands and search for consultancy behaviours. Obtained themes are investigated and collected in findings and discussion sections.

Findings

Characteristics of Subject Group

Participants ranged between 42–69 years old (median:

Table 2 Characteristics of subject group

Demographic properties (mean±SD)		
Age		55.11±7.6
Pregnancy number		2.47±0.5
Treatment duration		3.17±0.6
Education (n, %)		
Elementary school, middle school	10	58.82
High school	6	35.29
University	1	5.88
Total	17	100
Chronical diseases (n, %)		
None	4	23.52
Hypertension	7	41.17
Diabetes	3	17.64
Thyroid	2	11.76
Heart disease	1	5.88
Total	17	100

SD: Standard deviation.

55±11.7). 9 of the subject have elementary school education, 1 middle school, 6 high-school and 1 university graduate. 9 of the women had abdominal hysterectomy and bilateral saliny oophorectomy (TAH+BSO) surgery. Participant have given birth to 1–6 children (median: 2.47±0.5). The women who participated to the research have 3.17±0.6 years of treatment.

7 participants had hypertension, 3 have diabetes, 2 have thyroid and 1 have heart disease. Treatment and radiotherapy of women ranges between 1–16 years and each participant had 5 sessions of radiotherapy. Before cervical cancer diagnosis 14 women consulted to hospital with over bleeding, 2 with post-menopausal bleeding and 1 with bleeding after intercourse (Table 2).

Table 1 shows the following properties of participants; sexual life before cancer, diagnosis stage of cancer, sexual problems due to cancer and treatment, husbands behaviour to cancer diagnosis and treatment process, effect of cancer on sexual lives of couples and search for help about this subject.

It was found that 76.47% of the women participated in the study with vaginal bleeding, 11.76% with bleeding during intercourse and 11.76% with pain during intercourse. All of the women were diagnosed by cervical biopsy.

Women who participated in the study had vaginal pain in 41.17%, vaginal dryness in 11.76%, vaginal dryness in 29.41%, and vaginal dryness in 11.46% and vaginal dryness and pain in 11.66% 5,88% were not a problem. Vaginal pain was the most common problem with 41.17% after radio therapy.

Discussion

Data obtained in this study formed the following theme; effect of pelvic radiotherapy after cervical CA diagnosis on sexual activity and on husband and search for help. These themes are investigated in discussion section.

Women's sexual experience before cancer diagnosis

For most of the woman, sexuality is a complex feeling with physical appearance, feeling like a woman, having children and continuing sexual functionalities. In fact sexuality is effected from various factors.

Mrs B. Z. explains the sexual life before the cancer diagnosis as follows: "I never had an orgasm during my marriage, I don't know if all woman are like this or maybe my full-grown composition blocked me, I don't know. We are good with my husband, we have similar ideas but we are not going out with holding hands. I guess we never had sexual chemistry and maybe that is why I never had orgasm."

Menopause period may be the most effective period on sexual life. D.A. who has 60 years old and in menopause period states sexuality before cancer as follow: "we didn't have any problem in our sexual life until menopause. In this period I had pains and my willingness was decreased."

Symptoms and Effects Related with Cervical Cancer Before Cancer Diagnosis

One of the most common complains before cervical cancer diagnosis is excessive bleeding and pain.[9] Balasubramaniam et al. conducted a web based survey study to determine prevalence of cervical, endometrium and ovarium cancer on 26.466 women in different age groups, and results for most common symptoms before cancer diagnosis are as follows; 53% felling tired, 36.7% abdominal swelling, 2.3% post-menopausal bleeding and 2.8% weight gain. These symptoms are more common in elder women compared to young women and with abdominal pain there is generally pelvic pain as well.[10] In various studies complaints of women to go to a clinic are post-menopausal bleeding, bleeding before menstruation, post coital bleeding, vaginal secretion, long term menstruation, weight loss and tiredness and the diagnosis is made after pap smear test.[10]

In this study first complains before cervical cancer diagnosis is asked to the patients. Diagnosis and complains to go to a clinic are long term vaginal bleeding, post-coital bleeding, vaginal secretion and post-

menopausal bleeding. In diagnosis pap smear test and cervical biopsy methods are used. In our study women with cervical cancer diagnoses visit a doctor with most common complain of post-menopausal bleeding and bleeding after sexual intercourse.

Mrs. K. B age 65, describes what has happened before diagnosis: "I had lots of pain. Especially in my pubic, it was like labour pain and I felt it on by back. Recently I have started to lose weight. I went to the doctor; they took samples and then the diagnosis is made."

Mrs. E. K. age 52 in post-menopausal period describes the difficulties in diagnosis stage as follows: "I was in menopause and I didn't have bleeding for a long time. After the menopause when I have bloody secretion I was very afraid and I went to the doctor. They made some tests and took some samples. The result from the samples show that I have cervical cancer. I feel lucky that the treatment start immediately and I have early diagnosis."

A. Y. describes the problems and diagnosis process as follows: "I had excessive vaginal bleeding and went to control it, biopsy is made and I had a diagnosis. I was devastated when I hear the disease, It affected me greatly. My psychology was negatively affected and I thought if my womb and overs are taken I will never have an intercourse again and my womanhood will end.

C. G. defines the diagnosis process as follows: "I had good sexual life with my husband but after every intercourse there was yellow secretion and then bleeding. Therefore I went to doctor, smear test is conducted and diagnosis is made."

K. B. who has her first sexual experience in 16 and is now 65 tells about the complaints before diagnosis " I had too much pain during intercourse and this complain increased recently. That is why I went to see a doctor."

In addition to physiologic and psychologic complains with cancer diagnosis, cervical cancer can prevent women from having children especially for women in reproduction age. Two participants who came to clinic for infertility treatment and diagnosed as cervical cancers, tell about their dreams of having children are ended with cervical cancer.

B. Z. who has her first sexual intercourse in age 15 describes diagnosis process: "I went to control for in vitro fertilization, they told me I have a bigger problem than infertility, I had a biopsy and cervical cancer diagnosis is made. After that I had surgery and my chance of having a child is gone forever. Me and my husband were greatly affected, and idea of not having a child devastated us."

B. Z. tells about what happened when she went for

infertility treatment "we went to the doctor to have children but after the tests, cancer diagnosis is made. When I heard my uterus and ovum will be taken, me and my husband were devastated again. It means that we will never have a child. We had difficulties in decision stage but we should do what is best for my health..."

Effect on Sexual Life Of Surgical Treatment After Cervical Cancer Diagnosis

Women who participated to the study stated that due to surgical treatment for cancer they have problems such as body image, fear of losing womanhood, fear of ending the sexual life and not having a child again. In the study of Carpenter et al. (2009) on 175 women identified that there are significant differences between sexual ego schema and gynaecologic cancer.[12] Similarly in the study of Don Ovan et al. (2007) women with cervical cancer are feeling insufficient in terms of sexual health and sexual functionality.[5,13]

In a study of Taejong Song et al. where they have investigated effects of surgical treatment in cervical cancer patients on sexual functionality, they have compared 39 cotter conisations, 18 radical trachelectomy and 24 radical hysterectomy surgery and their effect on sexual functionality, and it is seen that women with radical hysterectomy have significant decrease in sexual functions. The results show that women with radical hysterectomy have difficulty in sexual arousal, difficulty in orgasm, decrease in sexual lust, decrease in sexual satisfaction and labial lubrication than women with other operations. It is identified that radical trachelectomy and radical hysterectomy conducted on early stage cervical cancer significantly threatens sexual functions of women.[14]

P. Ş. states the anxiety about the surgery: "I thought I would never have an intercourse and my womanhood is ended. After the surgery, I had painful sexual intercourse. It took a long time to accept is and I had bad psychological mood."

B. Z. defines sexual life after the surgery as follows: "I had serious pain in sexual intercourse after the surgery. I only felt pain..."

Sexual Problems and Effects After Pelvic Radiotherapy Due to Cervical Cancer

It is known that pelvic radiotherapy for cervical cancer effects sexual life significantly. Women who participated to this study state that vaginal dryness, vaginal narrowness, shortening in length of vagina, dyspareunia and excessive bleeding during intercourse after pelvic radiotherapy has effected the sexual life significantly.

In a study by Krychman et al. on 179 women with pelvic radiotherapy, they determined that 57% experience dryness, 59% dyspareunia and 38% vaginal narrowness, 85% decrease in sexual desires, 35% vaginal dryness, 45% shortening in vaginal length problems are identified and it is seen that 63% of participants can have active sexual treatment after treatment.[15]

L. M. states sexuality after treatment as follows: "I didn't have sexual intercourse until my control. In the examination doctor told me that my vagina is narrowing and if I don't have sexual intercourse it will close and I couldn't have examination. We are having mandatory sexual intercourse. Since my vagina is really narrow, I have excessive pain before and after the intercourse."

İ. M. tells sexual life after radiotherapy: "I had vaginal dryness complaints. I used vaginal gel and I didn't experience any problems. My sexual desire and lust are continuing. At first I was afraid of the intercourse but now the fear has decreased and I am starting enjoy it again."

Schover et al. conducted a study on 61 women with 26 radical hysterectomy and 35 radiotherapy treatment found that sexual desire losses are 24% in the first examination, 25% in 6th month and 25% in 12th month. Similarly in 12th month orgasm problems are recorded as 27%. The number of sexual complains are high. It is stated that in 12 months' vaginal penetration is 21% and 45% of women are suffering from excessive pain during intercourse and 24% of women have post coital vaginal pain. Additionally, 29% of women have experienced vaginal bleeding after intercourse for 12 months. These types of sexual problems are significant and there is sexual functionality disorder diagnosis in other studies.[16]

E. S. states sexual life after radiotherapy: "I didn't have any sexual life during process. I was ashamed of myself. I think my emotions are also effected. My mum also died from cancer, and I guess it is also effecting. But after the surgery sexual desire has decreased significantly and I am too tired. I think it is because of the treatment."

N. B age 49 and having a treatment for 5 years feels the sexuality as: "I don't feel a desire for sexual intercourse. I don't want to have sexual intercourse. Tiredness is too high, I guess it is because of the treatment. I didn't experienced any other problem that decrease in sexual desire."

C. G. stated the sexual problems after the treatment as follows: "It is like there is a wall inside and we cannot move further. At entrance, there is excessive pain and pressure, just like you are going to burst, but then you

get used to it. During ejaculation there is the feeling of burning like you are spraying pepper. I don't know how long it will take but it hurts too much. My vagina is not wet as before and it makes it harder."

In literature study of Ellen A. G. Lammerinka et al. on sexual functionality of patients with cervical cancer, when they investigated pain during sexual intercourse (dyspareunia) after cervical cancer, they have concluded that patients are describing pain during intercourse.[17]

In a study of Schover et al. they have found that women who took radiotherapy have decrease in sexual desires compared to women who only had surgical operation. On contrast in a study by Frumovitz et al. there is no significant difference between surgical treatment and radiotherapy.[16,17] Sexual life is effected from various physiologic and psychosocial factors. Especially age and the changes are important. It is possible that young cancer patients will experience problems in a shorter period and can have normal sexual life.

A. Y. age 42 states sexuality as follows: "I thought I will not have sexual intercourse because of my disease, my morale was low and I think I didn't desire because I was effected too much. After 6 months I was more comfortable. Now I don't have any decrease in my sexual desire and I think I have good sexuality."

The Most Effective Events on Sexual Life of Women After Cervical Cancer Treatment

Especially at first diagnosis stages patients experience anxiety or depression. In literature, it is stated that cancer patients with high distress have identified sexual problems more and in these patients, it is claimed that there are decrease in interest towards sexual relationship, decrease in sexual arousal and decrease in orgasm. Additionally related with the disease there are physical functionality disorders, feeling tired and intense sexual function disorders and relationship with the husband can make these problems worse. Treatment Process after the first diagnosis effects patients' sexual functions and sexual lives negatively.[18]

In the study of Park et al. it is found that women who had radiotherapy has intensive pain compared to other treatments. On the contrary the study of Hsu et al. show no significant difference. Pieterse et al. found that radiotherapy after surgical treatment increased sexual functionality disorders and pain during sexual intercourse.[17,19]

In the research of Soymak and Matthews conducted with 16 women from New Zealand who had stage III cervical cancer and the treatment is continued with surgical operations or radiotherapy, 14 weeks after the

radiotherapy approximately two third of women experiences decrease in desire activities and in terms of arousal and satisfaction, they have experienced low or medium degree of satisfaction.[17] It is found that 64% of women experience length shortening of vagina, 43% vaginal dryness, 43% vaginal narrowness and 36% vaginal bleeding. 43% of women has dyspareunia complain.[17]

B. Z. tells the sexuality after treatment as follows: "After the treatment I had excessive pain. Since I have painful sexual intercourse my sexual desire decreased. I previously had orgasm problems and I felt that this problem has increased. I can define sexual intercourse as pain, pain, and more pain. It has a hard process for me."

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55 years old G. C. described sexuality as: "I felt like my vagina is narrow. During intercourse, there was dryness and pain. I even had pain when I go to toilet. When we try too hard during intercourse I had bleeding. And now I can tell that I don't have sexual life."

Behaviour of Husbands During Disease and Treatment

Sexuality is a concept involving emotional states in addition to sexual intercourse. In another word sexuality is a complex concept that covers individuals behaviour, interpersonal relations, psychosocial and physical properties and it can change according to each patients and partners age, behaviour and cultural values.[20]

During cancer diagnosis and treatment communication and relation with the husband can be effective. In the research of Michelle S. Williams et al. 220 women are investigated, the participants consist of 49 cervical cancer patients and 171 healthy people. The study is made to evaluate psychological obstructs in cervical cancer. They have stated husbands behaviours as follows; "after cancer, my partner will be loyal to me, I would leave and marry my partner since I will experience sexual problems, I need a strong partner for sex, there is love between us and we should search for treatment options, I should support my wife emotionally".[21] In our research the husband's reactions were; I should leave my wife, I should always be there, there is fear of catching cancer from the wife and divorce.

Husbands behaviour and attitude toward sex after

cervical cancer diseases caused women to get distant from sex and the fear of divorce. F. K. is explaining what she has gone through this process: "my husband left me as he thought I would give the disease to him. I was forced to obtain a written report from my doctor that the disease is not contagious. In this hard period, trying to save my marriage was also devastating."

Cancer patients require social support for diagnosis and treatment process. They are expecting the support mostly from their husbands. Some men didn't care about the situation and some men support their wife.

E. S. tells the diagnosis as follows: "I had great support from my husband. The angry man was replaced with a new one. When I asked him how did he feel while I was gone for treatment, he said that the house was empty without me."

Husbands Reaction to Sexual Life After Pelvic Radiotherapy

In this study women who had pelvic radiotherapy claimed that their husbands are effected from vaginal narrowness, vaginal dryness and decrease in sexual desire. The women claimed that the husbands either didn't understand them, continued to sexual intercourse no matter what or being supportive during the process.

A. Y. stated how her husband ignored her status: "my husband was only doing for him and then gone. We are having sexual intercourse because he wants to."

K. B. claims that her husband was not effected: "my husband did not get effected. He still has desire. At the beginning of the treatment doctor forbid us to have sexual intercourse. Now there is not a problem, and my pain does not affect him."

F. K. states that her husband was not supportive: "my husband left me for the disease. He said you are sick and you will get me infected and filed for divorce."

C. G. explains the problems of her husband as : "at first as my vagina is narrow he also had problems until we get used to it, but after 3-4 minutes the problem disappears and it is like my vagina is extended. There was also decrease in desire in him. It is like we don't have our old freedom. I guess he felt like he would harm me."

Having Support for Sexual Problems

Sexuality is still a taboo for our people. Nurses have the key role to determine and guide the patients with sexual anxieties and problems.[22] In many researches it is shown that nurses have the duty to evaluate and guide cancer patients for sexuality but it is hard to complete the duty and they are avoiding to discuss the subject with patients.[23-25]

In many researches the reasons why nurses do not discuss sexual anxiety and problems with oncology patients are stated as follows; lack of time, focusing on cancer treatment and patient do not desire to discuss, lack of information, beliefs and behaviours toward sexuality and anxiety to harm patients privacy.[26–28]

In the study by Kotronoula et al. (2009) which evaluated 18 researches in systematic review, it is emphasized that taboos and prejudices of nurses are preventing the discussion of sexual related subjects.[22] In a similar study by Oskay et al. the reasons are stated as following; patient will be ashamed and feel like there is privacy invasion, insufficient information/experience and the subject is taboo.[29]

In our study although women are coming to regular controls for cancer and radiation treatment, they find it embarrassing to talk about sexual problems, they do not know how to ask, they did not see sexuality as a significant problem, the insufficient time during examination, there is no comfortable area to talk about the problem, not reaching the nurses because of work load type of reasons are causing them not to get help and they are trying to find their own solutions. Only 1 in 17 participants stated that she was getting support and 16 claimed that they were getting informed during anamnesis in the examination. The patients have not identified their sexual problems and complains before they were asked and did not think of taking and support or consultancy.

K. B. explains why she did not share her sexual problems: “I haven’t talked to anyone about this subject. I cannot tell anyone. I am really ashamed. You were the first one to share.”

B. Z. stated that they have support: “at first I did get support. We have a psychotherapist. She said we will come through our problems by spending good time with my husband. We are better now.”

L. M. told that she did not have support because she was ashamed: “I haven’t talked to anyone since I was ashamed. You were the first one to share. I was informed during examination but it was not much. Now I have more information. Thank you.”

Conclusion

In this study it is found that surgical operations due to cervical cancer are effecting women life, care for self, feeling that they lose the womanhood significantly, and pelvic radiotherapy applied after the surgical operation has negative effects such as vaginal dryness, dyspareunia, vaginal narrowness and vaginal sensitivity. Thus

the sexual life of cancer patients are negatively effected. Women who participated to the study stated that they did not want to share these problems because they were ashamed, they did not feel that it was significant and they were hesitating to talk to a professional and there was not a safe and comfortable zone for them to talk.

In every period sexual lives of women are effected due to various reasons and pelvic radiotherapy for the treatment of cervical cancer makes the situation more complex. Health professional should be aware that after pelvic radiotherapy care and treatment cancer cause sexual problems and women should be encouraged to talk about the problems and individual based consultancy should be presented.

Disclosure Statement

The authors declare no conflicts of interest.

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