

## RESEARCH ARTICLE

# Sexual Functions of Turkish Women with Gynecologic Cancer during the Chemotherapy Process

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### Abstract

**Background:** The negative effects of gynecologic cancer on women's health is multidimensional. Sexual problems arising after chemotherapy are decreased interest and vaginal lubrication, lack of orgasm and dyspareunia and sense of reduction in sexual attractiveness in general. The purpose of this study was to evaluate changes that patients who receive chemotherapy for a gynecologic oncology disorder experience in their sexual functions. **Materials and Methods:** A descriptive/cross-sectional and qualitative study was performed. The Female Sexual Function Index (FSFI) was used in order to collect data on sexual capacity. The quantitative data obtained were evaluated with frequency and percentage calculations while content analysis was performed for the qualitative data. **Results:** All of the information related to sexuality was provided by the physician. Chemotherapy treatment affected sexuality negatively in 55.9%. Since receiving the diagnosis, 52.9% of women had experienced no sexual intercourse at all. Those who had an FSFI score of 30 and below made up 75% of the women. After the content analysis of data obtained during in-depth interviewing, we focused on three main themes: desire for sexual intercourse, problems experienced during sexual intercourse, and coping with problems. **Conclusions:** An integrated system where sexual problems can be handled professionally should be present during gynecological cancer treatment.

**Keywords:** Sexuality - chemotherapy - gynecologic oncology - women cancer - Turkey

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### Introduction

Reproductive organs are one of the determinants of the "female" identity and play an important role in shaping a woman's body image and self-esteem. The disease or absence of reproductive organs can be self-interpreted as the loss of femininity, and feeling defective or deficient as a woman by the individuals. Studies have reported that surgical interventions (Gilbert et al., 2011) and particularly mastectomy, hysterectomy (Kuscu et al., 2005), vulvectomy (Green et al., 2000), ostomy (Persson and Hellstrom, 2002; Kilic et al., 2007) and lower extremity lymphedema (Salani, 2013) affect women's body image, self-esteem (Kilic et al., 2007), womanhood/femininity features and sexual functions negatively. Corney et al. (1993), report decreased vaginal lubrication, sexual desire, decreased ability to orgasm, and dyspareunia as common problems in women who have undergone radical hysterectomy and vulvectomy, and that these problems continue as chronic conditions (Corney et al., 1993). Both new patients and survivors are under the risk of a wide range of sequel namely sexual dysfunction, pain, premature menopause, fatigue and impaired physical functioning (Goker et al., 2011). Salani (2013) reported that difficulties with sexual function are one of the more common late effects in women, affecting over 50% of

survivors with gynecologic cancers and changes include but are not limited to infertility, a negative effect on sexual desire and/or arousal, and dyspareunia. In addition to gynecologic surgery, chemotherapy (CT) also has negative effects on sexual function. Generally sexuality is affected by cancer treatment during the first year of survivorship, but as time pass, women are less anxious of the disease prognosis and hence their sexual life become normal again (Keskin and Gumus, 2011).

Sexual problems arising after chemotherapy are decreased sexual interest and vaginal lubrication, lack of orgasm and dyspareunia and sense of reduction in sexual attractiveness in general. The systemic side effects that aggravate a sense of a reduction in sexual attractiveness are fatigue, weight changes, insomnia, nausea-vomiting, fear, and anxiety (Reis, 2003; Stilos, 2008; Gilbert et al., 2011). In a study conducted with women with breast cancer, a decrease in sexual desire was expressed by 84.3% of patients receiving chemotherapy, decreased arousal by 82.4% decreased lubrication by 58.5%, and difficulty in being satisfied by 57.9% (Kutmec, 2009).

To provide effective care for gynecological cancer survivors, health care professionals need to be aware of and understand the full scope of sexual concerns survivors may have. To date, knowledge regarding gynecological cancer survivors' sexual concerns has not

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been synthesized, which impedes progress in both research and clinical practice. Such a synthesis could help health care providers to better recognize and manage the sexual concerns experienced by their patients. Knowledge of the full scope of women's concerns could lead to more comprehensive assessment strategies and the development of clinical interventions meaningful to gynecological cancer survivors (Abbott-Anderson and Kwekkeboom, 2012). Studies showing that both women with cancer and their partners often self-silence as a way to cope. This self-silencing and resultant relational difficulty may be compounded by a lack of information and support from health professionals about sexuality and sexual well-being. Women with cancer and their partners want healthcare professionals to initiate discussions about sexuality (Gilbert et al., 2011). Gynecologic cancer patients prefer for information needs according to Papadoks et al. (2012) the most popular modality was pamphlet, followed by a one-on-one discussion with a health care professional and website. For the physical domain, the most popular choice was one-on-one discussion, followed by pamphlet and website. Overall, the least popular choices were the audio tape, the online forum, and the online chat.

To evaluate the changes that patients who receive chemotherapy (CT) for a gynecologic oncology disorder experience in their sexual functions.

## Materials and Methods

The study was conducted at Baskent University Ankara Hospital Gynecologic Oncology Service's chemotherapy unit. It was planned as a descriptive/cross-sectional and qualitative study approved by the Baskent University Institutional Review Board and Ethics Committee. Oral and written consent was obtained from the women included in the study.

### *Universe sampling and data collection*

Sampling procedures were not performed in this study and 34 women who received treatment in the Gynecologic Oncology Clinic Chemotherapy Unit of the hospital between June 10 and August 20, 2010 and stated being married/sexually active were included. A questionnaire and the Female Sexual Function Index (FSFI) were used in order to collect data on socio-demographic features and sexual capacity.

### *Female sexual function index (FSFI)*

The index has been developed by Kaplan et al. (1999). Yilmaz and Eryilmaz have determined the validity and reliability for Turkey in 2002. The Cronbach alpha score for FSFI is 0.82. The scale is composed of nine questions and each question queries the sexual function of the woman in the last month. It was designed to evaluate aspects of female sexual function (sexual intercourse discomfort, lubrication, frequency of sexual intercourse, sexual desire, intercourse satisfaction, orgasmic function and clitoral sensitivity). The highest score from the scale is 45 and the lowest score is 5. An increase in the total score indicates increased sexual function. In general, a total score below 30 is considered to be at high risk for

sexual dysfunction (Erol et al., 2003). We also used 30 scores as cut off point in the study.

### *Statistical analysis*

The quantitative data obtained from the study were evaluated with frequency and percentage calculations while content analysis was performed for the qualitative data.

## Results

Seventy nine percent of the women participated in the study were receiving chemotherapy with a diagnosis of ovarian cancer (24.5% itaxol+carboplatin protocol, 23.5% IIIrd cure). The mean age was 52.50±10.68 years, 28.9% had a primary school degree, 26.3% a high school degree and 71% were housewives.

The healthcare staff had informed 85.3% of the women about sexuality (Table 1). All of the information related to sexuality had been provided by the physician. Only 1 patient had requested the information by herself. Feeling incomplete as woman after the diagnosis was expressed by 20.6% of the women, refraining from sexual intercourse after the diagnosis by 61.8%, and the received chemotherapy treatment affecting sexuality negatively by 55.9% (Table 1).

Since receiving the diagnosis, 26.5% of women specified the frequency of sexual intercourse as 1-2 times per month, while 52.9% had experienced no sexual intercourse at all. 83.3% of these women were newly diagnosed (Table 2).

Those who had an FSFI score of 30 and below, which is defined as high risk for sexual dysfunction, made up 75% of the women.

### *Qualitative evaluation*

In-depth interviews lasting approximately 30 minutes were performed with 5 women who received under 30 points from the Female Sexual Function Index (FSFI), who agreed to the interview and felt well enough to be interviewed. A semi-structured questionnaire was used for the interviews and 3 questions were asked questioning the sexual problems and relevant needs of the women. After the content analysis of data obtained during in-depth interviewing, we focused on three main themes: Desire for sexual intercourse, problems experienced during sexual intercourse, and coping with problems.

1<sup>st</sup> theme: Desire for sexual intercourse, women expressed being afraid of sexual intercourse, postponing the relationship, and changing the place of sexuality among the priorities of life. "... I am reluctant, this may be due to drugs, I guess that is why, it is not as before", "... because I'm afraid, my body may be open to the smallest infection, my blood values are low... so I'm afraid of having any problems."

2<sup>nd</sup> theme: Problems experienced during sexual intercourse, the women specified feeling not being satisfied, pain and dryness during intercourse most commonly. "...this drug causes dryness, a lot of dryness so it hurts too much," "...there was a little bit of pain at first, but it returns to normal after a few months pass once

**Table 1. Some Features about the Sex Lives of the Women**

| Some features of sexuality<br>(n:34)                              | Yes |      | No  |      | Sometimes |      |
|---|-----|------|-----|------|-----------|------|
|   | No. | %    | No. | %    | No.       | %    |
| Obtaining information about sexuality from the healthcare staff   | 29  | 85.3 | 5   | 14.7 | -         | -    |
| Feeling "defective or deficient" as a woman after the diagnosis   | 7   | 20.6 | 17  | 50.0 | 10        | 29.4 |
| Avoiding sexual relationship after the diagnosis                  | 21  | 61.8 | 8   | 23.5 | 5         | 14.7 |
| Sexuality being affected negatively due to the received treatment | 19  | 55.9 | 15  | 44.1 | -         | -    |

**Table 2. Frequency of Sexual Intercourse After the Diagnosis**

|  | No. | %     |
|--|-----|-------|
| Sexuality intercourse<br>(times per month) |     |       |
| 7-8  | 1   | 2.9   |
| 3-4  | 3   | 8.8   |
| 1-2  | 9   | 26.5  |
| Less                                       | 3   | 8.8   |
| *No intercourse                            | 18  | 52.9  |
| Total                                      | 34  | 100.0 |

\*15 patients who reported having no sexual relationship were newly diagnosed (in approximately the last 6 months)

**Table 3. Female Sexual Function Index (FSFI) Evaluation**

|             | No. | %     |
|-------------|-----|-------|
| SFSFI Score |     |       |
| ≤30         | 12  | 75.0  |
| ≥31         | 4   | 25.0  |
| Total*      | 16  | 100.0 |

\*FSFI only examines the sexual life in the last four weeks so it was administered to only 16 women and not to the 18 women who reported not having sexual intercourse

*the chemotherapy has ended...*"

3<sup>rd</sup> theme: Coping with the problems, the women stated not being able to share the problems they experience with the healthcare staff, not being able to request help and trying to solve this problem by talking to their husbands, using resources such as the internet or trying to postpone things or ignore the problems. "...a delicate subject, I just could not ask", "...I was ashamed that he would wonder why I am thinking about these things while on medication", "...I am talking to my husband about it"

## Discussion

Although there is a growing number of studies about cancer and sexuality in Turkey from recent years, studies specific to the issues of women with gynecological cancer and their husbands are relatively new and few in number. The number of healthcare staff specialized in gynecological cancer treatment and sexuality is very few and therefore unable to help patients sufficiently in dealing with this issue.

The greatest negative effect of reproductive organ cancers is on sexual function. The emerging problems may vary depending on disease type, stage and the treatment applied. The sexual problems caused by cancer diagnosis and surgical/medical treatment are fear/anxiety, loss of desire and appetite, lack of orgasm, dyspareunia, vaginal shortening, and decreased vaginal lubrication and elasticity in general (Wilmoth and Spinelli, 2000).

Gynecological cancer affects the four important elements of sexual health (body image, gender role, the feminine identity, sexual function and reproductive

ability) leading to a marked influence on these patients (Reis, 2003; Stilos et al., 2008; Keskin and Gumus, 2012). Hysterectomy has negative effects on body image, self-esteem, and dyadic adjustment in women affected by gynecologic cancer. A problem experienced in one area in gynecologic cancers also affects other areas and thereby sexuality (Keskin and Gumus, 2012).

According to Reis (2003), reproductive organs disease or absence can be interpreted as the loss of femininity, and feeling of being defective or deficient as a woman by the individuals. In our study, half of the women stated feeling defective or deficient from time to time or in general.

Fear and anxiety are very important causes of the sexual problems in women with gynecologic cancer (Corney et al., 1993). Reis et al. (2010) reported that women with gynecological cancer thought that sexual intercourse could transmit the cancer to the husband, worsen the disease and cause recurrence. We also had a patient who was afraid of intercourse as she would be prone to infection due to low blood values during chemotherapy. Oshima et al. (2011) found that the gynecologic cancer survivors' lack of information about sexuality in their qualitative study. Akyuz et al. (2008) found that the patients with gynecological cancer experienced difficulty in asking sexual matters to physicians and nurses and could not get adequate relevant information from healthcare staff, similar to our study.

Pieterse et al. (2006) reported that most (63%) of their patients receiving high-dose CT due to germ cell cancer considered that insufficient information and counseling had been provided by their physicians about the sexual sequelae of the treatment. Although our study indicated a higher percentage of patients received information, the patients did not state whether they found the information adequate. This result, as seen in the 3<sup>rd</sup> theme defined for the qualitative data of our study as "coping with problems", may stem from women not being aware of the need for searching for the solution of problems related to sexuality. On the other hand, the inability to integrate the solution of a problem in the healthcare system is considered to be a factor affecting this result. Stilos et al. (2008) highlighted one of the most important issues related to sexual issues as timing, and stated that medical staff discussed the psychosexual issues during diagnosis and treatment when the patients were focused more on the treatment and survival. Women postponing considering the issue of sexuality during chemotherapy is naturally an expected result.

The first stage of gynecological cancer treatment is hysterectomy. Reis (2003) highlighted that both women and their husbands had consistent fears, wrong beliefs and opinions such as the vagina preventing sexual intercourse with satisfaction, the partner not finding the women

attractive and the sexuality coming to an end with the result that they avoided talking about sexual activity for fear of hurting each other and therefore prolonged the problem. Similarly, Akyuz et al. (2008) found the men avoiding sexuality due to concern about harming the partner with gynecological cancer and due to the woman indicating her loss of sexual desire.

Keskin and Gumus (2012) also mentioned that their sexual desire inhibit after surgical and adjuvant treatment. Further process they improve a fear that their partner may be repelled sexually. Some of these women had stopped sexual intercourse, A few others continue their sexual life exhibit a low level. The percentage of women who specified avoiding sexual intercourse after receiving a diagnosis of the disorder was high (76.5%) in our study. The women and their husbands were found to have similar thoughts regarding the themes "Desire for sexual intercourse and the problems experienced during sexual intercourse" in the qualitative dimension of the study. Lack of sexual desire is one of the common problems experienced during cancer treatments. Analyzing the results obtained in the theme "Coping with the problems" indicates that the resources are inadequate. Similar to the study of Akyuz (2008), women expressed survival and well-being as the priority rather than sexual intercourse in theme 3 in our study.

Abbott-Anderson and Kwekkeboom (2012) reported in their review study, more than half of the studies identified pain (dyspareunia) as a significant deterrent to participating in sexual activity. In the presented study pain was also found as one main symptom affect the sexuality. Sexual problems are nearly always caused by a combination of physiological changes and psychological factors. In general, being diagnosed with cancer is regarded as a critical point in life associated with long-lasting psychological effects. A study found that men may still suffer from anxiety, insomnia, depression and decreased sexual arousal even a decade after treatment (Stilos et al., 2008). Healthcare professionals may avoid the subject because they believe that dealing with patients' sexual issues is outside their realm of responsibility. Others may fear that they will offend patients or their partners and risk legal ramifications. This study has also shown that patients avoid sexual matters because they are not helped in this regard.

In conclusion and recommendations, women diagnosed with a gynecologic cancer and undergoing chemotherapy reported experiencing sexual problems, not being able to request help from the healthcare staff about these problems, and the staff not being able to talk about sexual issues with their patients. Healthcare staff should inform the patient about these issues and encourage the patient to speak about the problems. An integrated system where sexual problems can be handled professionally should be present during gynecological cancer treatment.

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