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Overview of Sexual Function in Cervical Cancer Patients After Getting Chemotherapy

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### **Abstract**

Corresponding Author fathiyaners@umsurabaya.ac.id Introduction: Sexual problems sometimes happened in cervical cancer patient, it related to body image, sexual role function, sexual function, and reproductive ability. The purpose of this study was to identify sexual function that occurs in patients with cervical cancer after chemotherapy. **Method:** A case study with descriptive qualitative in Indonesian Cancer Foundation, East Java Branch, Surabaya City. Participants in this study amounted to 3 people. Sexual function in cancer patients was measured using the Female Sexual Function Index (FSFI) questionnaire. Data Anlysis used descriptive analysis. Results: Based on the results of the research on filling out the FSFI auestionnaire, the results of the full scale score of respondent 1 with a score of 1.2, respondent 2 with a score of 1.6 and respondent 3 with a score of 19.3 were obtained. Respondent 1 found that the individual experienced sexual dysfunction with the lowest score of 0 in the arousal, lubrication, orgasm, and satisfaction domains. Respondent 2 found that the individual experienced sexual dysfunction with the lowest score of 0 in the arousal, lubrication, orgasm, and pain domains. In respondent 3, it was found that the individual did not experience sexual dysfunction with the lowest 0 only in the lubrication domain number questions 9 and 10, and the highest scores 3 and 4 in the arousal and satisfaction domain. Conclusion: This shows that two respondents experienced sexual dysfunction, thus requiring sexuality needs intervention in order to fulfill the patient's needs.

## **Keyword:**

Sexual Function, Cervical Cancer, Chemotherapy, Women

#### INTRODUCTION

Cervical cancer can cause its own psychological problems for women because of changes in the reproductive organs which are considered a very important part for women in the aspect of sexuality (Markovic-Denic et al., 2018). Sexuality is the activity of married couples and can provide satisfaction to their partners, but if there is an abnormal condition of the sexual organs, it will cause a decrease in body image and partner dissatisfaction (Christiansen et al., 2022; Koç et al., 2019).

Based on World Health Organization (WHO) data on 2019 cervical cancer is the most common cancer and ranks fourth in women with an estimated 570,000 new cases in 2018 representing 6.6% of all female cancers (Rai et al., 2020; Tekalegn et al., 2020). About 90% of deaths from cervical cancer occur in low- and middle-income countries (Hull et al., 2020). The number of cervical cancer cases in Indonesia reported in 2016 reached 348,809 cases (Kristina et al., 2022). Meanwhile, according to the 2018 Global Cancer Observatory report, it is estimated that there are 32,469 cases per year of cervical cancer in Indonesia with a mortality rate of 18,279 people (Markovic-Denic et al., 2018; Tekalegn et al., 2020). In China, cervical cancer is the most common type of cancer that affects women with an incidence of 33,914 deaths every year (Larionova et al., 2020; Li et al., 2018). In 2018 there were 18.1 million new cases with a death rate of 9.6 million deaths. The data also stated that 1 in 11 women died of cervical cancer (Bray et al., 2018; Ferlay et al., 2019). The incidence of cancer in Indonesia ranks eighth, namely 136.2 per 100,000 population, and in women cervical cancer is the second most common cancer after breast cancer, which is 23.4 per 100,000 population with an average death rate of 13.9 per 100,000 population (Hadisiwi et al., 2021; Handayani et al., 2020; Simanullang, 2018).

Cervical cancer data is also the dominant cancer in East Java Province, based on data released by the East Java Provincial Health Office, in 2019 the number of cervical cancer sufferers reached 13,078 cases (Hadisiwi et al., 2021). According to the Federation of Gynecology and Obstetrics (FIGO) in 2020, cervical cancer needs to be treated by surgery, radiation, chemotherapy, and a combination of these modalities (Balaya et al., 2020; Salvo et al., 2020). Cervical cancer treatment has long-term implications, one of which is the problem of sexuality which can also have an impact on the quality of life of cancer sufferers. In general, the

disease process and therapy for cervical cancer patients can have an impact on fatigue, early menopause symptoms, infertility, and sexual dysfunction due to damage to the ovaries and vagina (Markovic-Denic et al., 2018). Psychologically, the bad effects of cancer therapy are the emergence of impaired sexual satisfaction, intimacy disorders with partners, lack of self-confidence, impaired self-image, and a lack of a sense of femininity as a woman (Tekalegn et al., 2020).

Empirical research shows that women with cervical cancer often report a lack of sexual interest, decreased sexual activity, dyspareunia, lack of lubrication, and low sexual satisfaction (Christiansen et al., 2022). Sexuality is an important part of the daily quality of life of cervical cancer sufferers, both before, during, and after cancer therapy. As many as 80% of women experience sexual dysfunction related to sexual activity, dyspareunia, lack of lubrication, and sexual satisfaction (Markovic-Denic et al., 2018). This is supported by the 2019 Fakunle and Maree theory which states that female orgasm disorders are due to the effects of radiation, chemotherapy and surgical procedures such as hysterectomies (Tekalegn et al., 2020).

Sexual needs are one of the needs that must be met and are very important, including the 14 basic human needs of Virginia Henderson. Cervical cancer will cause sexuality problems and can persist for more than 10 years after the patient is diagnosed, causing its own concerns in terms of quality of life (Hull et al., 2020; Kristina et al., 2022). Sexuality is recognized as an important aspect of survival, sexual function health is increasingly receiving attention from cervical cancer treatment and survival. The high data on decreased sexual activity, sexual pleasure, sexual arousal, lubrication, orgasm, and pain during intercourse will affect the sexual and psychological functions of patients and partners (Ferlay et al., 2019; Li et al., 2018). Likewise, patients undergoing chemotherapy with many side effects will also have the potential to cause a woman's physical condition to be weaker, painful, change body shape and cause a decrease in self-satisfaction, so it is necessary to carry out further evaluation of the patient's condition. The purpose of this study was to evaluate the description of sexual function through a case study in cervical cancer patients after receiving chemotherapy.

#### **METHODS**

This research uses case study research method. The research was conducted at the Indonesian Cancer Foundation, East Java Branch, Surabaya City on 1-23

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# **Patient Information**

Participants in this study amounted to 3 people. Specific criteria are able to write and read, do not have mental disorders, patients are of productive age (married and have a partner (husband), cervical cancer patients after chemotherapy and participants are willing to participate in this study. Patients are women aged between 41-45 years with the last education level being primary education. All patients were diagnosed with cancer about 2 years ago and were in stage 2.

## **Clinical Findings**

that the patient had symptoms related to sexual function, namely experiencing prolonged bleeding during menstruation and bleeding occurred continuously for treatment, then relapsed in 2020 last month with stage 2. the last 5 months (Mrs. F). The patient also showed bleeding but it disappeared and persisted for 2 years and the bleeding was accompanied by purulent discharge (Mrs. N), while the last patient showed pain that was so severe that it interfered with sexual fulfillment (Mrs. A).

## **Data Collection Procedure**

The researcher first applied for a permit and research ethics to the Faculty of Medicine, University of Muhammadiyah Surabaya and was declared to have passed the ethics test, then the researcher took the data directly at the East Java Indonesian Cancer Foundation in the city of Surabaya. Data collection was carried out using a Female Sexual Function Index (FSFI) questionnaire by distributing questionnaires, researcher introduced himself and explained the purpose of the study before conducting the study, first conducted informed consent as evidence of consent to become a respondent in the study.

## Follow-up and Outcomes

Evaluation of the results of the case study using the Female Sexual Function Index (FSFI) instrument which evaluates sexual dysfunction and consists of 19 questions. The case study on sexual function uses scientific interpretation criteria in the form of a questionnaire that is adjusted to the interpretation data. The sexual function that will be investigated has six domains of sexual dysfunction, namely, sexual desire (2 items), sexual arousal (4 items), lubrication (4 items), orgasm (3 items), satisfaction (3 items), and pain/pain. (3 items). The full-scale score was obtained by adding up the six domain scores. The results of the full scale score if the score is <2.0 then the individual has sexual dysfunction. If a score > 2.0is obtained, the individual does not experience sexual dysfunction.

## **HASIL**

The results of the study obtained respondent 1, namely Mrs. F is currently 41 years old with the last education being junior high school (SMP) and work as a housewife. She said that she was diagnosed with cervical cancer about 5 months ago with stage 2. Respondent 2 obtained data from Ny. N is 52 years old with the last education in elementary school (SD) before suffering from cervical cancer. Ny. N works as a trader but currently as a housewife she said that she was diagnosed with cervical cancer about 2 years ago with stage 2. Clinical results obtained from 3 patients showed While for respondent 3 data obtained from Ny. A 45 years old said that he was diagnosed with cervical cancer since 2018 but was declared cured 3 months after

Table 1. Characteristics of Research Respondents

Subject	Age	Educational	Stadium	First
_		background		Diagno
				sed
Ny. F	41	Junior High	Stage 2	2 years
	years	School		ago
Ny. N	43	Elementary	Stage 2	2 years
	years	School		ago
Ny. A	45	Senior High	Stage 2	2 years
	years	School		ago

Cervical cancer staging from 3 respondents was in second stage, 2 of them were 2 years old and one of them was 3 years old. With 28 elementary school education, no work, first marriage, married at the age of 15, no children. The respondent used injectable contraception for 10 years. Most of the treatments that respondents in study had undergone were combination chemotherapy and radiation treatment, as many as 3 respondents (100%). The general description of this study shows that all respondents experienced changes in sexuality. There are 3 respondents (100%) in the domain of sexual desire, there is a change in sexual desire. The results of the research on the domains of sexual arousal, lubrication, orgasm, and sexual pain/discomfort showed that the majority of respondents experienced changes in sexual arousal, lubrication, orgasm, and pain or discomfort as many as 3 respondents (100%).

#### **DISCUSSION**

The results of this study indicate that the majority of respondents are aged 41 - 52 years. This is in accordance with research conducted which states that cervical cancer mostly attacks Indonesian women at the

age of 30-50 years (Aoki et al., 2020). Age is an important risk factor in the development of cervical cancer. The older a person is, the higher the risk of cervical cancer. This is because from the onset of highrisk HPV infection until cervical cancer takes 15 years (Fontham et al., 2020). The results of this study indicate that the education of 3 respondents were basic education. This is in accordance with research in 2018 which stated that the level of education was strongly related to the incidence of cervical cancer (Gregory et al., 2022). Low education has a risk of cervical cancer, because the level of education is related to knowledge and awareness of health (Gregory et al., 2022).

Every servical cancer survival experienced changes in sexuality, this is in accordance with previous research which stated that cervical cancer patients who had undergone cancer therapy mostly experienced a decreased desire to have sexual intercourse (Moshi et al., 2018; Thapa et al., 2018). Cancer therapy causes cervical cancer sufferers to experience decreased interest, arousal, lubrication, orgasm, and dyspareunia or pain during sexual intercourse. Respondent satisfaction in this study also changed, as many as 2 respondents (90%). The previous research which stated that the negative impact of psychological cancer therapy was the onset of sexual satisfaction disorders (Hald et al., 2018). Cancer therapy in the form of radiation therapy can cause vaginal tissue to burn, causing loss of Ferlay, J., Colombet, M., Soerjomataram, I., Mathers, elasticity and loss of vaginal lubrication (Wu et al., 2021).

Vaginal drying accompanied by loss of flexibility and lubricating fluid causes dyspareunia, resulting in changes in sexual function, namely desire, arousal, orgasm, and satisfaction (Christiansen et al., 2022). Cervical cancer patients who had undergone cancer therapy experienced sexual problems in the form of decreased interest in sexual activity and experienced intercourse during sexual (dyspareunia) (Handayani et al., 2020; Simanullang, 2018). Decreased interest in sexual activity in cervical cancer patients who have undergone cancer therapy is due to vaginal dryness so that if you have sexual intercourse you will feel pain (Fontham et al., 2020). Vaginal drying means that there is no vaginal lubrication that serves to lubricate the vagina when the penis enters the coitus, causing direct friction between the vagina and the penis. This direct friction causes pain (dyspareunia) which can raise the risk of bleeding and reduce interest in sexual activity (Moshi et al., 2018; Thapa et al., 2018).

#### CONCLUSION

Indonesian Academia Health Sciences Journal Should relate to the study aims, hypotheses, findings, and suggestions for further research.

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