



Sexuality of women with cervix cancer after treatment: literature review

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ABSTRAK

Latar Belakang: Kanker serviks menjadi salah satu penyakit kompleks yang membutuhkan penanganan tenaga medis secara komprehensif. Pengobatan yang diberikan pada wanita dengan kanker serviks berbagai macam seperti radiasi, kemoterapi bahkan hingga prosedur pembedahan (histerektomi). Efek positif dari pengobatan yaitu mematikan sel kanker. Pengobatan yang diberikan (kemoterapi dan radiasi) ternyata juga memberikan efek negatif secara fisik seperti kekeringan pada vagina, kemerahan pada area genital, dan saluran vagina. Perubahan tersebut secara langsung berkaitan dengan fungsi seksual. **Tujuan:** Tujuan utama dilakukan tinjauan literatur ini adalah memberikan tinjauan secara sistematis hasil studi penelitian mengenai seksualitas pasien kanker serviks yang mendapatkan terapi kanker serviks.

Metode: Studi ini merupakan literatur review. Data based yang digunakan adalah NCBI, dan Google Scholar Penulis mencantumkan kata kunci diantaranya "sexuality, cancer, after treatment, cerviks". Kriteria inklusi artikel diantaranya dipublikasikan pada tahun 2016-2020, metode penelitian merupakan kuantitatif, artikel ditulis dalam Bahasa Inggris, artikel mengandung informasi mengenai topik.

Hasil Penelitian: Hasil literatur ini diperoleh 12 artikel yang memenuhi kriteria inklusi. **Kesimpulan:** Setelah ditelaah dapat disimpulkan bahwa terapi untuk penyakit kanker yang diberikan pada pasien kanker serviks dapat mempengaruhi seksualitas terutama fungsi seksual. Terapi yang diberikan (radioterapi, kemoterapi, dan proses pembedahan) berpengaruh langsung pada organ reproduksi wanita.

KATA KUNCI: *sexuality; cancer; after treatment; cerviks*

ABSTRACT

Background: Cervical cancer is a complex disease that requires comprehensive treatment from clinical professionals. Treatment of women with cervical cancer, such as radiation, chemotherapy and also surgery (hysterectomy). The positive effect of treatment is that it kills cancer cells. There were also physically negative treatments offered (chemotherapy and radiation), such as vaginal dryness, redness of the vaginal area and vaginal canal.

Objectives: This adjustments are linked to sexual function directly. The main objective of this literature review is to finding clinical reports on the sexuality of cervical cancer patients undergoing cervical cancer treatment. This study is a literature review. Data based used are NCBI and Google Scholar.

Methods: This research is a study of literature. NCBI and Google Scholar are used based on results. The writer uses keywords "sexuality, cancer, after treatment, cervix". Inclusion criteria for papers were released in 2016-2020, the analysis approach was quantitative, papers were written in English, information on the subject was found in publications.

Results: 12 articles that fulfilled the inclusion criteria were analyzed and the results of this literature.

Conclusions: *It can be suggested, after analyzing it, that cancer therapy given to cervical cancer patients can influence sexuality, especially sexual function. The treatment available (radiotherapy, chemotherapy, and the surgical process) has a significant effect on the female reproductive organs.*

KEYWORD : *sexuality; cancer; after treatment; cervix*

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INTRODUCTION

Cancer is a malignant disease whose exact cause is unknown. This condition is known as a non-communicable disease arising from unchecked and irregular development of cells. Continuous irregular growth of cells may spread rapidly to other organs of the body to cause death (1,2). Cancer has been at the forefront of focus in the world for the past ten years. The International Organization for Research on Cancer (IARC) discovered 18.1 million new patients in 2018, including 9.6 million deaths due to cancer, based on reports from GLOBOCAN. Total cancer deaths are expected to rise by 45 percent in 2030. Cervical cancer is one of the more prevalent forms of cancer and causes women to die the most (1,3). Indonesia as a state in Southeast Asia ranks 3rd as the country with the highest number of cancer cases. Types of breast and cervical cancer dominate the number of female cancer sufferers in Indonesia (4–6).

Cervical cancer is a complex disease that requires comprehensive treatment from clinical professionals. Treatment of women with cervical cancer, such as radiation, chemotherapy and also surgery (hysterectomy). The positive effect of treatment is that it kills cancer cells. There were also physically negative treatments offered (chemotherapy and radiation), such as vaginal dryness, redness of the vaginal area and vaginal canal (7,8). Changes in reproductive organs

that are directly related to sexuality, particularly sexual function, are the physical changes described above (9,10).

Sexual needs often remain unresolved and result in increased emotional distress. Complaints of feeling hot, dry, and easily irritated in the vaginal area are common (11,12). Fear of reduced fertility and harmony with a partner is also a concern for patients of childbearing age. Virginia Henderson stated that humans have 14 basic life needs that must be met in order to maintain survival, one of which is sexuality (13)

The main factor of this problem was not detected because of the lack of communication between patients and health workers. Health workers do not take the initiative to ask the patient, as long as the patient does not ask questions first. Health workers seem to avoid this topic because of insufficient knowledge and tend to focus on physical medicine. While from the patient's perspective, they want information related to sexuality but are reluctant to ask first (14,15). This condition is thought to be one of the reasons why sexuality problems seem to have gone unnoticed (7,16). The results of a literature search, research related to anxiety disorders in cancer patients in Indonesia have been quite a lot, while research talking about sexuality still limited so, the authors are interested in conducting research about sexuality in cancer patient.

A person who undergoes a cancer treatment program, is faced with concerns about changes in sexuality. When talking about sexuality, this topic is still often considered embarrassing, taboo, and seems to be covered up for discussion. Sexuality is a fundamental element in human life which is defined as an individual's ability to fulfill normal sexual functions (Picturedella et al., 2018). Most of the literature describes the impact of cancer treatment on sexuality in the form of decreased physical function during treatment. Sexual needs often remain unresolved and result in increased emotional distress. Complaints of feeling hot, dry, and easily irritated in the vaginal area are common (Maree & Fitch, 2019; Zielińska et al., 2019).

Based on this background, the question arises how the sexuality of cervical cancer patients who receive cervical cancer therapy? To answer the question, it is necessary to review the research results. The main objective of this literature review is to finding clinical reports on the sexuality of cervical cancer patients undergoing cervical cancer treatment.

MATERIALS AND METHODS

Literature search was conducted from December 2019 to January 2020. The author conducted a literature search by accessing easy-to-access databases such as: NCBI and Google Scholar. The author includes keywords including (Sexuality OR psychosexual development AND Cancer OR Neoplasm OR Malignancy AND Cervix OR Uterine AND After Treatment). Researchers determine the year limitations of research articles to the last 5 years (2016-2020). The year ranges of research papers are restricted by scholars to the last 5 years (2016-2020). The purpose of this constraint is to find credible references. A literature survey on NCBI and Google Scholar was studied by researchers. The

results of the literature search were retrieved from the Googlescholar database with as many as 36.100 articles and 159.797 articles from the NCBI database. Then, depending on the year of publication, specifically the last 5 years. The papers were re-selected on the basis of the title by the writer, then re-extracted on the basis of inclusion criteria, including: research papers containing full text, English research papers, the research paper approach used was quantitative research, respondent of research paper was adult, research papers must include details and contribute to sexuality issues in women with cervical cancer. Picture 1 shows the process article search:

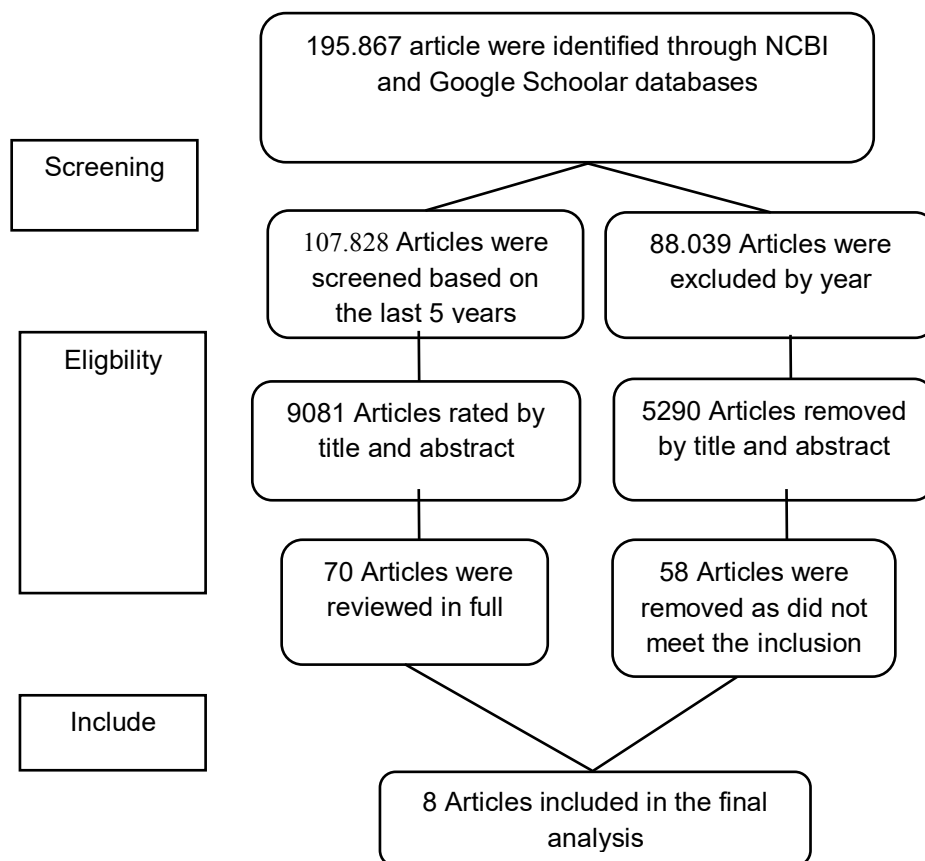
RESULT AND DISCUSSION

This literature review culminated in the publication of 8 papers. 3 papers were published in 2016, 1 article was published in 2017, 3 article was published in 2018, and 1 articles were published in 2019. Many of these papers discuss sexuality of cervical cancer patients who have undergone therapy for the disease. There were three major issue subjects based on the overall number of articles: cancer therapy, impact of therapy for sexual function, and sexual function in cervical patient cervical. Table 2 shows the result of article search.

DISCUSSION

Cancer Therapy

According to the literature reviewed, cervical cancer treatment is very varied and complicated. The treatment should be mixed and matched depending on the patient's diagnosis and requirements (23). According to seven peer-reviewed papers, the therapy offered may be one or a mixture of therapies. Therapy can include radiotherapy, brachytherapy, chemotherapy, and surgery (14,16).



Picture 1 . Process Article Search

Table 2 . Table of Article

Authors	Research Purpose	Research Design	Sample	Result
Bae & Park., (2016)	To determine the rate of sexual function, depression, and quality of life in patients with cervix cancer	Cross Sectional	137 women with diagnosed cervix cancer patient	<ol style="list-style-type: none"> 1. The mean age of the 137 participants was 47.82 ± 7.89 years. 2. 108 participants (78.8 %) reported that they were married 3. 114 (83.2 %) were in FIGO stage I. 4. Regarding treatment, 82 (62.0 %) received surgery only 5. Among the 124 participants who underwent surgery, there were 101 cases (73.7 %) of radical hysterectomy. 6. The mean depression score was 11.08 ± 5.06 points. Majority 64 participants (45.4 %) had more than a moderate level of depression. 7. The participants experienced sexual dysfunction (4.83 ± 4.16). all the subjects fell into the group with a high risk of sexual dysfunction. 8. The mean score of quality of life was 57.33 ± 8.47. 9. Quality of life, sexual function was positively correlated with physical well-being, social well-being, and functional well-being ($p=.001$), but not with psychological well-being ($p=.223$)

Blake et al., (2017)	To analysis of the impact of specific factors related to chemotherapy on female sexual function	Cross Sectional	107 women with gynecological cancer	<ol style="list-style-type: none"> 1. Women undergoing chemotherapy were more likely to experience sexual dysfunction post-treatment 2. In bivariate analyses, sexual dysfunction following chemotherapy was associated with age < 50 3. Majority cervical cancer
Dahbi et al., (2018)	To describe how cervical cancer and its treatment affect the sexuality of women survivors of this disease.	Crospective study	300 Moroccan women including 300 women with cervix cancer, non gynecological cancer, and healthy women.	<ol style="list-style-type: none"> 1. The mean age of the participants was 52.8 years. 2. 97% of the patients stopped their full sexual activity at the time of treatment. 3. The time interval between treatment and regular sexual activity was 8 months for the cervical cancer group, and 5.8 months for non-gynecologic cancer (P =0.001). 4. Vaginal length assessed by pelvic examination about 6.2 cm, 9.2 cm and 9.5 cm respectively for the cervical cancer group, non-gynecologic cancer group and the control group (p=0.04).
Fakunle & Maree, (2019)	To investigate sexual function in women who had been treated for cervical cancer at an academic hospital in South Africa	Cross Sectional	147 cervix cancer survivors	<ol style="list-style-type: none"> 1. The mean age was 45.7 (SD ± 9.2) years and median age was 44 2. . The majority of the women (94.6%; n = 139) experienced sexual dysfunction. 3. Age, educational level, the type of treatment received and having had sexual counselling before treatment commenced did not influence sexual function.
Grion et al., (2016)	To achieve a better understanding of issues related to sexual function and quality of life of women with cervical cancer at initiation of radiotherapy	Plot study	80 cervix cancer survivors	<ol style="list-style-type: none"> 1. The mean age was 48,1 years. 2. Majority 55% respondent was stage III B 3. 18 women who had been sexually active in the previous month showed significant sexual dysfunction. Ttotal mean FSFI score = 25.6 4. The main adverse events during sexual intercourse were bleeding (41.7 %), lack of pleasure (33.3 %), dyspareunia (25 %), and vaginal dryness (16.7 %).
Guner et al., (2018)	the purpose of examining the sexual functions of patients' who underwent a gynecological operation and received brachytherapy	Descriptive study	118 women who attended the Radiation Oncology Unit at Ege University Medical Faculty Hospital in Izmir Province	<ol style="list-style-type: none"> 1. 60% of the participants had cervical cancer 2. The average age of women who participated in study was 50.90±7.98 3. The FSFI average score was determined to be 15.77±8.71 4. 47 respondent getting chemotherapy and brachytherapy be treatment to reduce cancer.
Lee et al., (2016)	The aim of this study was to compare quality of life and sexual function between cervical cancer patients and healthy women.	Cross Sectional	104 cervical cancer patients and 104 healthy women.	<ol style="list-style-type: none"> 1. Sexuality variable both in sexual activity, sexual pleasure, and sexual (EORTC QLQ-CX24), and in terms of desire, arousal, lubrication, orgasm, satisfaction, and pain (FSFI) are similar between groups. 2. sexual / vaginal function scale on the EORTC QLQ-CX24 is divided into individual questions, cervical cancer survivors reported shorter vaginal lengths control group, but without statistical significance (mean, 80.6 vs 85.4; p = 0.077).
Moroney et al., (2018)	To evaluate the associations of external beam radiation therapy (EBRT) and intracavitary brachytherapy (IB) with decreased sexual function	Cross Sectional	171 cervix cancer survivors	<ol style="list-style-type: none"> 1. 171 women completed the survey 2. 35% (n = 60) received radiation 3. Women who received radiation had similar rates of decreased sexual function as women who did not (47% vs. 38%, P = 0.262. 4. Women experiencing decreased sexual function were more likely to be under 50 years old (OR 5.4, 95%CI 1.6–18.1)

Impact of Therapy for Cancer Patient Sexual Function

To eliminate cancer cells in the body, radiotherapy, chemotherapy, and surgery are used. Treatment for cancer may have a damaging impact on sexual function but cancer patient expresses they haven't received enough information about how disease and medication (including surgery) may affect their sexual life (12,16).

Female hormones lower estrogen and progesterone levels, which is a side effect of sexuality. Reduced estrogen and progesterone levels cause improvements in the reproductive organs and sexual function, as well as early menopause and infertility (24,25). Women undergoing chemotherapy were more likely to experience sexual dysfunction post-treatment like Vaginal shortening and dryness, as well as redness of the labia (20). There were fewer than 10 patients with reported vulvar, vaginal or other disease sites. Cervical cancer patients' vaginas are shortened to 6.2 cm in length. The length of the vaginal canal in these patients is less than in most cancer patients (18).

According to some research, radiotherapy is the care modality most linked to a decline in cervical cancer patients' quality of life and sexual function (21). Early-stage cervical cancer radiotherapy has been reported to cause more sexual complications than surgical treatment. Patient with cervical cancer undergoing radiotherapy reported cause a decrease in lubrication, sexual interest, satisfaction after sex, and also dyspareunia and problems with orgasm compare than surgical treatment (26,27). Women with gynecological cancer may experience decreased sexual desire from the moment of the diagnosis of malignancy. (21,27)

Sexual Function in Cervical Patient

Sexuality can be experienced and reflected in emotions, dreams, expectations,

opinions, perceptions, morals, behaviors, habits, responsibilities, and relationships, and is a representation of an individual's personality and lifestyle (21). Personal thoughts regarding their bodies, femininity, fertility, and sexual activity, which requires the desire to engage in sexual acts and pleasure, are all aspects of sexuality in women (16,20). Sexual function may be impaired by symptoms such as vaginal bleeding. Vaginal bleeding during intercourse was both the main reported adverse effect and the main reason for women not continuing to be sexually active (28). Another possible inhibitor of sexuality is that approximately one-third of women with cervical cancer believe that sexual relations can exacerbate disease (21,26).

CONCLUSION AND RECOMMENDATION

According to the conclusions of this literature review, the treatment for cervical cancer patients is very complex and can be combined depending on the patient's needs. However, the treatment that these patients are given has a significant effect on their reproductive organs and sexual activity.

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