

## The Relationship between Sexual Function and Quality of Life in Cervical Cancer Patients

Rinda Intan Sari<sup>a</sup> \* | Anis Ardiyanti<sup>a</sup> | Nella Vallen Ika Puspita<sup>b</sup>

<sup>a</sup> Department of Nursing, STIKES Telogorejo Semarang

<sup>b</sup> Department of Midwifery, STIKES Telogorejo Semarang

\*Corresponding Author: [rinda@stikestelogorejo.ac.id](mailto:rinda@stikestelogorejo.ac.id)

### ARTICLE INFORMATION

#### Article history

Received (12 January 2025)

Revised (17 January 2025)

Accepted (20 January 2025)

#### Keywords

Cervical Cancer, Sexual function, quality of life

### ABSTRACT

**Introduction:** Patients with cervical cancer have various physical complaints that can be felt directly, one of which is impaired sexual function, hormonal changes that occur due to the course of cervical cancer can cause decreased sexual desire, decreased lubrication and dyspareunia. Sexual function can result in decreased quality of life for women as an important role in sexuality. Many studies focus on the quality of life, but have not revealed sexual function.

**Objectives:** The purpose of this study was to analyze the relationship between sexual function and quality of life for cervical cancer patients. **Methods:** Quantitative research design using cross-sectional method. Sample selection using quota sampling technique with 60 respondents. The instruments in this study were FSFI and WHOQoL. Data processing and analysis using the SPSS program with Spearman-rank test.

**Results:** The majority of respondents were adults (81.7%) and underwent multitherapy (73.3%). A total of 53 respondents experienced sexual dysfunction and 55 respondents had a good quality of life. The results of the Spearman rank statistical test showed that the p-value was 0.030 (<0.05). It can be concluded that there is a relationship between sexual function and quality of life and has a weak relationship strength.

**Conclusions:** Sexual function is a factor related to the quality of life of cervical cancer patients. Therefore, nurses must be able to reveal the sexual function experienced by patients in providing more comprehensive nursing care so that they can improve their quality of life.

## Introduction

Cancer is the second leading cause of death and morbidity in the world after cardiovascular disease. In 202, there were 604,000 new cases and 342,000 deaths. Almost all cancer cases occur in poor and developing countries (WHO, 2022). Patients with cervical cancer have various physical complaints that can be felt directly (Alligood, 2014). Disruption of sexual function is a common effect, hormonal changes that occur due to the course of cervical cancer can cause decreased sexual desire-, and decreased lubrication. In addition, there is also gastrointestinal motility dysfunction, and activity intolerance/easily tiredness (Christiyanty, Sulistyarini, & Sirait, 2021). The process of cervical cancer treatment also has the effect of anxiety, impaired intimacy with partners, lack of self-confidence, sexual dissatisfaction, and impaired self-image. This affects the quality of life of women, especially in terms of sexuality.

Patients have sexual intercourse based on fear of infidelity from their partner, feeling guilty, and fear that their husband will not be satisfied because he is not perfect in serving their sexual needs (Afiyanti, & Pratiwi, 2016). Unresolved sexual aspects have an impact on married life and threaten the quality of life of patients and partners, so the role of nurses who can provide



comprehensive nursing care is needed. This is following the Regulation of the Minister of Health No. 34 of 2015 concerning the Management of Cervical Cancer, one of which is about the rehabilitation of cervical cancer patients including in the aspect of sexuality. However, there has not been much research that discusses the focus of sexual function because it is considered taboo and difficult to express.

Sexual function depends on the integration of physical, socioemotional, and intellectual aspects. Sexual dysfunction occurs in any phase of sexual performance or period of the sexual response cycle (desire, sexual arousal, stimulation, orgasm, resolution) and prevents the individual or couple from experiencing satisfaction from sexual intercourse (Firmino Murgel, Santos Simões, Maciel, Soares, & Baracat, 2019).

Quality of life is the perception of an individual's position in a cultural context and its relationship to their goals, expectations and standards. The quality of life of cancer patients can be expressed through the following aspects, namely first physical health including general health, pain, energy and vitality, sexual activity, sleep, rest. Second, psychological well-being including ways of thinking, learning, memory, concentration, emotions. Third, social relationships including social relationships and social support. Fourth, relationships with the environment including security, home environment, and job satisfaction. This study raises the topic of aspects of sexuality that are rarely revealed in research, especially in Indonesia (Maulida, Idriansari, & Adhistry, 2019). Aspects of sexuality that are not handled can reduce sexual function and even sexual dysfunction. In addition, it also affects the quality of life of patients and partners. So that it can affect the quality of life both physically, psychologically and socially, it is necessary to research sexual function and quality of life. The purpose of this study is to analyze the relationship between sexual function and the quality of life of cervical cancer patients, where sexual function is one of the factors that influence the quality of life.

## Methods

This research design is a quantitative study using a cross-sectional method to analyze the relationship between sexual function and quality of life in cervical cancer patients. Sample selection used a quota sampling technique with inclusion criteria of cervical cancer patients undergoing treatment at a large hospital in the city of Semarang, still having a husband and living in the same house and still being sexually active, aged 20-65 years. The number of samples in this study was 60 respondents. The study was conducted from January to March 2024. The instrument in this study was the Female Sexual Function Index (FSFI) which has been tested for validity and reliability by previous researchers (Betsyeba, 2014). The quality of life instrument used was WHOQoL. This study has obtained ethical clearance with the number 1636 / EC / KEPK-RSDK / 2023. The flow of this research starts from the administration process, explanation of the research, signing of informed consent for respondents who are willing, distribution, and filling out the FSFI and WHOQOL questionnaires. Data processing and analysis used the SPSS program to describe the characteristics of respondents, sexual function variables, and quality of life with the spearman-rank test.

## Results

The results of this study include the characteristics of respondents based on age and therapy explained in the following table.

Table 1 Respondent characteristics (n= 60 respondents)

Age	n	%
-----	---	---



Adult	47	81.7
Elderly	13	18.3
Total	60	100
<b>Therapy</b>	<b>n</b>	<b>%</b>
One therapy	16	26.7
Multi-therapy	44	73.3
Total	60	100

Based on table 1, it shows that the majority of respondents were in the adult age group (19-59 years), namely 47 respondents (81.7%) and underwent multitherapy (chemotherapy with radiotherapy), namely 44 respondents (73.3%).

Table 2 Relationship between Sexual Function and Quality of Life (n= 60 respondents)

Variable	n	%	Coefficient correlation	p-value
<b>Sexual Function</b>				
Normal	7	11.7	0.280	0.030
Sexual Dysfunction	53	88.3		
Total	60	100		
<b>Quality of Life</b>				
Good	55	91.7		
Moderate	5	8.3		
Total	60	100		

Based on table 2 shows that as many as 53 respondents experienced sexual dysfunction and as many as 55 respondents had a good quality of life. The results of the Spearman rank statistical test obtained that the p value was 0.030 (<0.05) it can be concluded that there is a relationship between sexual function and quality of life and has a weak relationship strength.

## Discussion

### a. Characteristic Respondents

Age is one of the risk factors that is considered to affect the prognosis of cervical cancer patients and affect the maturity of the human immune system. At a young age to adulthood, the immune system will peak and the older the age, the lower the immune system (Quick et al., 2020). The high incidence of cervical cancer in the elderly is due to the lack of desire and attention from the community to carry out cervical cancer screening. A woman who is >35 years old is at risk of developing cervical cancer, because it is caused by increasing and increasing duration of exposure to carcinogens and a weakening of the immune system due to increasing age (Ita Sulistiani, 2024).

At the age of 35-55 years, there is a 2-3 times greater risk of suffering from cervical cancer. As a person gets older, they will experience a process of decline, so that in old age there is a greater possibility of falling ill, or being easily infected. A person who suffers from cervical cancer will mostly experience sexual dysfunction, because after menopause or aged >35 years is a complex problem with various etiologies, both in terms of physiological, psychological, and lifestyle (Yuviska & Amirus, 2018).

The results of this study are in line with research (Morita, 2016); (Girsang et al., 2021) which stated that most respondents underwent multitherapy treatment, namely chemotherapy and radiotherapy. In general, cervical cancer patients can undergo surgery, radiotherapy, and chemotherapy. These three treatments can be done one or in combination. Surgery is a procedure to destroy abnormal cells by freezing using liquid nitrogen. Surgery using high-energy rays to



destroy abnormal cells. Chemotherapy is a method of treatment by administering cancer cell-killing drugs (cytostatics) which are taken orally or through blood vessels. Chemotherapy aims to improve the response rate and improve the body's immune system. Chemotherapy has an effect towards sexual disorders, the results of the study found sexual disorders in the form of lubrication disorders, namely 20 women (52.7%) (Rahmi, Nuraeni, & Solehati, 2019). This means that it is related to the effects of chemotherapy which causes reduced production of vaginal mucus so that problems arise in lubrication which results in pain during sexual intercourse so that satisfaction during sexual intercourse becomes low. Women who undergo breast cancer therapy such as chemotherapy cause more vaginal dryness (lubrication disorders) which can make sexual intercourse painful and less satisfying overall. Chemotherapy drugs such as tamoxifen cause low estrogen levels which cause vaginal dryness making women feel uncomfortable with dryness (Rahmi, Nuraeni, & Solehati, 2019). Radiotherapy is a treatment that is commonly applied to patients to treat the growth of their cancer cells. Radiation therapy uses high-level radiation which aims to kill cancer cells (Wahyuni, 2016). In cervical cancer patients, the use of treatment for cervical cancer depends on the location, size, stage, age, and general condition.

#### **b. Relationship between Sexual Function and Quality of Life**

Cancer in female reproductive organs affects sexual function by almost 50% including sexual satisfaction (Afiyanti & Pratiwi, 2016). Sexual disorders in cervical cancer patients due to the effects of cervical cancer therapy can cause sexual dysfunction that affects women's quality of life. Many studies report that cervical cancer survivors experience various sexual problems that have a negative impact on quality of life. Changes in physical and psychological sexual complaints (Klee and Machin, 2000; Wenzel, et al., 2005; Burns, 2007, in Afiyanti 2018). According to Karim & Lubis (2017), quality of life includes several dimensions including physical dimensions which include activity, diet, memory & concentration, physical mobility, speech, pain, sleep & rest. Psychological dimensions include self-image, life motivation, feelings of happiness, feelings of sadness. Social dimensions include changes in social function, and changes in roles.

There are 4 domains in quality of life, namely physical, psychological, social and spiritual domains. In cervical cancer patients, the physical domain refers to controlling or eliminating symptoms and maintaining function and independence. The psychological domain is an effort to maintain control of life against a threatening disease characterized by emotional disturbances, changes in life priorities, fear and positive life changes. The social domain is an effort to deal with the impact of cancer on individuals, their roles and relationships, and the spiritual domain is the ability to maintain hope and meaning from the cancer experience which is characterized by uncertainty. According to research by Novackova, Pastor, Chmel Jr, Mala, & Chmel (2022), in line with this study, it was found that there is a relationship between sexual function and quality of life in cervical cancer patients. Supported by research by Wu, et al (2021), there is a relationship between sexuality and quality of life in cervical cancer patients after treatment.

Quality of life measurement has become a vital and important dimension, especially in assessing health outcomes for populations with chronic diseases. Patients with chronic diseases, one of which is cervical cancer (Rijken, 2018) require quality of life measurement because it is a very meaningful way to determine the impact of health service efforts that have been provided when healing of the disease becomes impossible and interferes with daily activities (Shofany, 2017). Poor quality of life in patients will have an impact on frustration, anxiety, fear and prolonged worry so that patients will give up on their lives and lose enthusiasm in facing the future, for this reason appropriate management is needed, as well as several nursing interventions that can complement treatment, in addition to existing medical or pharmacological treatments (de Alencar et al 2020).



## Conclusion

This study shows that cervical cancer patients in the adult category, Where they are still productive and should still have good sexual function but the results of this study show that more than 50% have sexual dysfunction. This study also shows that the majority of respondents underwent multi-therapy where this can cause other effects besides sexual dysfunction so that it can reduce the quality of life. However, these results explain that most respondents have a good quality of life so it can be concluded that not only sexual function affects the quality of life. Other factors that affect the quality of life include psychosocial, spiritual and social aspects. The suggestion of this study is that it can be improved to use interventions to improve sexual function in cervical cancer patients. In addition, the results of this study can be used as a reference for teaching materials and can be a procedure that the assessment of sexual function and quality of life is needed in comprehensive nursing care, especially in cervical cancer patients.

## References

- Afiyanti, & Pratiwi. (2016). *Seksualitas dan Kesehatan Reproduksi Perempuan*. Jakarta: Rajawali Press
- Afiyanti, Y., & Milanti, A. (2013). Physical sexual and intimate relationship concerns among Indonesian cervical cancer survivors: A phenomenological study. *Nursing & Health Sciences*, 15(2), 151-156.
- Alligood, M. R. (2014). *Nursing theory & their work* (8 th ed). The CV Mosby Company St. Louis. Toronto. Missouri: Mosby Elsevier. Inc
- Arianti, M., Nursanti, I., & Nugroho, M. N. (2020). Pengalaman seksual pada perempuan dengan kanker serviks yang sedang menjalani kemoterapi. *Jurnal Ilmiah Kesehatan*, 9(2), 72-77.
- Arianti, M., Nursanti, I., & Nugroho, M. N. (2020). Pengalaman seksual pada perempuan dengan kanker serviks yang sedang menjalani kemoterapi. *Jurnal Ilmiah Kesehatan*, 9(2), 72-77
- Baroroh, I. (2023). Edukasi Kanker Serviks (Skrining, Diagnosa dan Pencegahan). *Jurnal ABDIMAS-HIP Pengabdian Kepada Masyarakat*, 4(1), 31-36.
- Christiyanty, C., Sulistyarini, W. D., & Sirait, Y. (2021). *STUDI FENOMENOLOGI: KUALITAS HIDUP PEREMPUAN DENGAN KANKER SERVIKS*
- da Silva, R. P. et al. (2017) "Effect of strength training on sleep apnea severity in the elderly: Study protocol for a randomized controlled trial," *Trials*, 18(1), hal. 1-10.
- DALAM ASPEK KESEHATAN FISIK. *Jurnal Keperawatan Wiyata*, 2(1), 91-100.
- de Alencar SBV, de Lima FM, Dias LDA, Dias VDA, Lessa AC, Bezerra JM, et al. Depression and quality of life in older adults on hemodialysis. *Brazilian J Psychiatry*. 2020;42(2):195-200
- Dikmen HA, Terzioglu F. (2019). Effects of Reflexology and Progressive Muscle Relaxation on Pain, Fatigue, and Quality of Life during Chemotherapy in Gynecologic Cancer Patients. *Pain Manag Nurs*. 9;20(1):47-53.
- Dinatha, G. N. K., Oka, A. A. G., & Santosa, K. B. (2022). Predictive Factors Influencing the Outcomes of Double "J" Stent Placement in Stage IIIB Cervical Cancer Patients With Hydronephrosis Complication. DOI: <https://doi.org/10.24843/JBN.2022.v06.i01.p01>
- Erlinna, Milandani, E. (2023). *Pengaruh Relaksasi Otot Progresif Dan Napas Dalam Terhadap Tingkat Kecemasan Pasien Kanker Serviks Pada Masa Pandemi Covid-19 Di Rsud Dr. Moewardi* (Doctoral dissertation, Universitas Kusuma Husada Surakarta).
- Fakunle, I. E., & Maree, J. E. (2019). Sexual function in South African women treated for cervical cancer. *International Journal of Africa Nursing Sciences*, 10, 124-130.
- Firmino Murgel, A. C., Santos Simões, R., Maciel, G. A. R., Soares, J. M., & Baracat, E. C. (2019). Sexual dysfunction in women with polycystic ovary syndrome: systematic review and meta-analysis. *The Journal of Sexual Medicine*, 16(4), 542-550.





- Frumovitz, M., Obermair, A., Coleman, R. L., Pareja, R., Lopez, A., Ribero, R., ... & Ramirez, P. T. (2020). Quality of life in patients with cervical cancer after open versus minimally invasive radical hysterectomy (LACC): a secondary outcome of a multicentre, randomised, open-label, phase 3, non-inferiority trial. *The Lancet Oncology*, 21(6), 851-860.
- Gökşin, İ., & Ayaz-Alkaya, S. (2018). The effectiveness of progressive muscle relaxation on the postpartum quality of life: a randomized controlled trial. *Asian nursing research*, 12(2), 86-90.
- Hajibashi A, Sarrafzadeh J, Amiri A, Salehi R, Vasaghi-Gharamaleki B. (2023). Effect of progressive muscle relaxation as an add-on to pulmonary telerehabilitation in discharged patients with COVID-19: A randomised controlled trial. *Complement Ther Clin Pract*. 2023;51(February 2022):101730.
- Hasanpour-Dehkordi, A. dan Jalali, A. (2016) "Effect of progressive muscle relaxation on the fatigue and quality of life among Iranian aging persons," *Acta Medica Iranica*, 54(7), hal. 430-436. Tersedia pada: <https://pubmed.ncbi.nlm.nih.gov/27424013/>.
- Hasnani, F. (2022). HIDUP DENGAN KANKER SERVIKS. *Journal of Syntax Literate*, 7(3).
- Heriyanto, H. (2018). Thematic Analysis sebagai Metode Menganalisa Data untuk Penelitian Kualitatif. *Anuva: Jurnal Kajian Budaya, Perpustakaan, dan Informasi*, 2(3), 317-324. Jakarta: Rajagrafi Prasad
- Karim, U. N., Dewi, A., & Hijriyati, Y. (2021). Analisa faktor resiko kanker serviks dikaitkan dengan kualitas hidup pasien di rsia bunda jakarta. *Kemntrian Kesehatan*. 2022. Wanita Beresiko Terkena Kanker Serviks. [https://yankes.kemkes.go.id/view\\_artikel/389/wanita-beresiko-terkena-kanker-serviks](https://yankes.kemkes.go.id/view_artikel/389/wanita-beresiko-terkena-kanker-serviks) diakses tanggal 2 April 2023
- Kuile, M.M, ter, at al, (2016), Cervical cancer survivors and partners' experience with sexual dysfunction and psychosexual support, *support care cancer*, 24;1679- 1687 DOI 10.1007/s00520-0520-015- 2928
- Kuile, M.M, ter, at al, (2016), Cervical cancer survivors and partners' experience with sexual dysfunction and psychosexual support, *support care cancer*, 24;1679- 1687 DOI 10.1007/s00520-0520-015- 2928
- Lekatompessy, M. F., & Lisum, K. (2024). Terapi Relaksasi Otot Progresif terhadap Kualitas Hidup Pasien dengan Penyakit Kronis: Literature Review. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 7(4), 815-821.
- Maulida, M. N., Idriansari, A., & Adhistry, K. (2019, February). Gambaran Kualitas Hidup Penderita Kanker Serviks Stadium III. In *Proceeding Seminar Nasional Keperawatan* (Vol. 4, No. 1, pp. 18-22).
- Najafi Ghezalje T, Kohandany M, Oskouei FH, Malek M. (2017). The Effect of Progressive Muscle Relaxation on Glycated Hemoglobin and Health-related Quality of Life in Patients with Type 2 Diabetes Mellitus. *Appl Nurs Res*. 2017;33:142-8.
- Novackova, M., Pastor, Z., Chmel Jr, R., Mala, I., & Chmel, R. (2022). Sexuality and quality of life after nerve-sparing radical hysterectomy for cervical cancer: A prospective study. *Taiwanese Journal of Obstetrics and Gynecology*, 61(4), 641-645.
- Osei Appiah E, Amertil NP, Oti-Boadi Ezekiel E, Lavoe H, Siedu DJ. (2021). Impact of cervical cancer on the sexual and physical health of women diagnosed with cervical cancer in Ghana: A qualitative phenomenological study. *Womens Health (Lond)*. 2021 Jan-Dec;17:174550652111066075. doi: 10.1177/174550652111066075. PMID: 34937442; PMCID: PMC8724983.
- Putri, N. A., Wedayani, A. A. A. N., & Irawan, M. R. (2023). Edukasi Mengenai Kanker Serviks dan Langkah Penanganan dan Pencegahan di Poli Radiologi RSUD Provinsi Mataram. *Jurnal Pengabdian Magister Pendidikan IPA*, 6(2), 34-36.



- Rahmi, E., Nuraeni, A., & Solehati, T. (2019). Gambaran fungsi seksual pada wanita dengan terapi akibat kanker payudara. *Kebidanan dan Keperawatan*, 1.
- Rijkens M, Hujala A, van Ginneken E, Melchiorre MG, Groenewegen P, Schellevis F. (2018). Managing multimorbidity: Profiles of integrated care approaches targeting people with multiple chronic conditions in Europe. *Health Policy (New York)*. 2018;122(1):44–52.
- Rokhman, A., & Supriati, L. (2018). Pengaruh Terapi Progressive Muscle Relaxation Terhadap Kecemasan Dan Kualitas Hidup Pada Pasien Diabetes Mellitus Tipe 2 Di RS Muhammadiyah Lamongan. *Jurnal Riset Kesehatan Nasional*, 2(1), 45-58.
- Samaria, D. (2022). Edukasi Kesehatan tentang Deteksi Dini Kanker Serviks di Desa Cibadung, Gunung Sindur, Bogor. *Jurnal Kreativitas Pengabdian Kepada Masyarakat (PKM)*, 5(7), 2243-2258.
- Sarwono, B., & Kriswoyo, P. G. (2022). Faktor Risiko Pola Seksualitas Pada Wanita Lesi Servik. *Juru Rawat. Jurnal Update Keperawatan*, 2(1).
- Seyedi, Chegeni P, Gholami M, Azargoon A, Hossein Pour AH, Birjandi M, Norollahi H. The effect of progressive muscle relaxation on the management of fatigue and quality of sleep in patients with chronic obstructive pulmonary disease: A randomized controlled clinical trial. *Complement Ther Clin Pract*. 2018;31:64–70.
- Shofany, C. (2017). Quality of Life among Chronic Disease Patients. *Nurs Care Open Access J*. 2017;4(2):385–94.
- Sopfe, J., Pettigrew, J., Afghahi, A., Appiah, L. C., & Coons, H. L. (2021). Interventions to improve sexual health in women living with and surviving cancer: review and recommendations. *Cancers*, 13(13), 3153.
- Trisnaputri, A. P., Adhistry, K., & Purwanto, S. (2022). Terapi Kombinasi: Aromaterapi Jahe dan Relaksasi Otot Progresif pada Pasien Kanker Serviks Pasca Kemoterapi. *Jurnal Untuk Masyarakat Sehat (JUKMAS)*, 6(1), 85-91.
- WHO. (2022). Cervical Cancer. <https://www.who.int/news-room/fact-sheets/detail/cervical-cancer> diakses tanggal 1 April 2023
- Wu, X., Wu, L., Han, J., Wu, Y., Cao, T., Gao, Y., ... & Wang, J. (2021). Evaluation of the sexual quality of life and sexual function of cervical cancer survivors after cancer treatment: a retrospective trial. *Archives of Gynecology and Obstetrics*, 1-8.
- Yavas G, Yavas C, Dogan NU, Ilhan TT, Dogan S, Karabagli P, Ata O, Yuce E, Celik, C. (2017). Pelvic radiotherapy does not deteriorate the quality of life of women with gynecologic cancers in long-term follow-up: A 2 years prospective single-center study. *J Cancer Res Ther*. 2017 Jul-Sep;13(3):524- 532. doi: 10.4103/0973-1482.187243. PMID: 28862221

