

Depression Among Cervical Cancer Patients: A Cross-Sectional Analysis of Clinical and Sociodemographic Factors

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ABSTRACT

Cervical carcinoma is a type of cancer that predominantly affects women and significantly impacts their quality of life, particularly psychological well-being. Depression is a common psychological complication experienced by cervical carcinoma patients. This study aims to analyze the characteristics of cervical carcinoma patients experiencing depression at RSPAL Dr. Ramelan Surabaya in 2024. The research used a descriptive design with a retrospective approach, with data obtained from patient medical records and the Beck Depression Inventory (BDI) questionnaire. The analysis classified patients' depression levels into normal, mild mood disturbance, borderline depression, low depression, moderate depression, and extreme depression, while evaluating risk factors such as age, employment, and marital status. The results showed that the majority of patients were in the extreme depression category, with a percentage of 35.2%. Age-related risk factors revealed that 74.1% of patients were in the adult age group (19–59 years). Regarding employment, most patients were housewives or unemployed (68.5%). Furthermore, the majority of patients were married or previously married (85.2%). In conclusion, cervical carcinoma patients tend to experience extreme depression, particularly those in the adult age group, unemployed women, and those who are married. These findings are expected to serve as a reference for developing psychological intervention programs to improve the quality of life of cervical carcinoma patients.

Introduction

Cervical carcinoma, also known as cervical cancer, is a malignancy that originates from the abnormal and uncontrolled growth of cervical epithelial cells. A persistent infection typically causes this disease. Human Papillomavirus (HPV) high-risk types, especially types 16 and 18, are the leading cause of most cases of cervical carcinoma worldwide. The HPV virus is a small, non-enveloped, double-stranded, circular DNA virus. It is not included in the HPV family. Papillomaviridae which is persistent and continuous so that it can attack the epithelial cells in the cervix or can be called Epitheliotropic. Infections caused by HPV tend not to show severe symptoms, however there

are some lesions on the genital organs that tend to turn into invasive lesions. The development of cervical carcinoma can be influenced by several factors, such as persistent infection, smoking, high parity, oral contraceptives, socioeconomic and marital status, age, and occupation.

According to the World Health Organization (WHO), cervical carcinoma ranks as the fourth most common cancer in women, with significant morbidity and mortality rates, especially in developing countries. In Indonesia, cervical carcinoma is the second most common cancer in women, with an estimated 36,633 cases reported in 2022. This disease generally affects women in middle age to early old age (45-54

years), which poses a significant challenge in the field of public health, mainly because it is often diagnosed at an advanced stage with a poor prognosis.⁷

In addition to the physical burden, cervical carcinoma also has a significant psychological impact on patients. Depression is a common psychological complication, with a reported prevalence ranging from 30% to 60% in cervical carcinoma patients. Depression in patients is often associated with disease-related stress, side effects of therapy, and a poor prognosis and increased mortality rate.^{8,9} In childhood carcinoma patients, depression usually goes undetected and is therefore rarely treated.¹⁰ Risk factors for depression and biological mechanisms cause immunological or immune system changes in each individual, where clinical implications such as infections, systemic diseases, and cancer also affect the course of depression.¹¹ Social factors such as gender, age, family support, and the patient's level of knowledge about this disease, where these factors need to be known to provide special treatment or attention to the mental condition of cervical carcinoma patients.¹²

Research conducted by Gunawan (2024) showed a significant association between the stage of cervical carcinoma and the severity of depression. Furthermore, Golubovic's research also demonstrated that cervical carcinoma patients are among the vulnerable group for psychiatric disorders, which are associated with a significant burden of disease and adverse survival rates.¹³ Patients with advanced disease tend to experience higher levels of psychological stress due to poor treatment outcomes and more severe physical symptoms. This emphasizes the importance of mental health attention as part of holistic care for cervical carcinoma patients.

Given the high prevalence of depression among cervical carcinoma patients and its detrimental impact on quality of life, this study aims to analyze the characteristics of depression in cervical carcinoma patients at Dr. Ramelan

Hospital, Surabaya. By examining factors such as age, occupation, and marital status, this study aims to provide valuable insights for more targeted psychological interventions and enhance patient outcomes.

Methodology

This research employs a qualitative descriptive research design. *Cross-sectional* by collecting data over a specific period. The purpose of this study was to determine the characteristics of cervical carcinoma patients experiencing depression at Dr. Ramelan Hospital, Surabaya, during the 2024 period. A retrospective descriptive design was used to describe the characteristics of cervical carcinoma patients experiencing depression based on medical record data and questionnaires. *Beck Depression Inventory* (BDI). The study was conducted at the Dr. Ramelan Central Naval Hospital (RSPAL) in Surabaya in 2024. The study population consisted of female patients diagnosed with cervical carcinoma, and the sample was selected randomly. Purposive sampling was based on the inclusion criteria, specifically 54 patients diagnosed with cervical carcinoma who had completed the BDI questionnaire.

Patients' depression levels were measured using the BDI questionnaire, which classifies depression levels into six categories: normal (1-10), mild mood disturbance (11-16), borderline depression (17-20), mild depression (21-30), moderate depression (31-40), and severe depression (>40). The BDI instrument has been validated and is widely used in measuring depression. The research variables analyzed included age (adolescents, adults, elderly), occupation (working, not working, housewife), and marital status (married, not married, divorced/widowed).

Data were collected from patient medical records, which were approved by the research ethics committee, as well as through questionnaires completed by patients after they

provided written consent. The collected data were analyzed descriptively using frequency distributions to describe patterns of depression

Results and Discussion

Depression Level

Table 1. Depression Levels in Cervical Carcinoma

Patients

Depression level	Freak	%
Normal	7	13,0
Mild mood disorders	2	3,7
Depression threshold	9	16,7
Low depression	14	25,9
moderate depression	3	5,6
Depression <i>extreme</i>	19	35,2

The majority of cervical carcinoma patients experienced major depression, at 35.2%. This finding aligns with research by Gunawan (2024), which found that 35.7% of patients experienced major depression.⁸ Azizi et al.'s (2023) study also supports these findings, with the majority of patients (61.2%)

experiencing high levels of depression, based on indicators of emotional function, fatigue, and insomnia.¹⁴ However, Raihan et al.'s (2022) study showed different results, with

levels based on the patients' age, occupation, and marital status.

42.2% of patients experiencing mild depression, and only 4.4% of patients experiencing severe depression.¹² These differences are likely due to factors such as age, occupation, and marital status.

Age

Table 2. Age in Cervical Carcinoma Patients

Age	Frequen cy	%
Babies and toddlers	0	0
Children	0	0
Teenagers	0	0
Mature	40	74,1
Carry on	14	25,9

The majority of cervical carcinoma patients were adults (19-59 years) at 74.1%, followed by elderly patients (>60 years) at 25.9%. These findings align with research by Quick et al. (2020), which shows a bimodal pattern of cervical carcinoma incidence, with peaks at ages 30-39 years (among adults) and 60-69 years (among older people).¹⁵

Study Gunawan (2024) also explained that the highest figure was in adulthood (<50 years) with a percentage of 60.7%.⁸ While

research Raihan, Tjokroprawiro, and Konginan (2022) recorded the 41-50 age range as the largest group (48.9%).¹² In addition, research by Wijayati (2020) revealed that 66.7% of patients were in late adulthood (41-60 years), which is an age that is vulnerable to depression due to physical, mental, and social decline related to experience and understanding of the disease.¹⁷

Work

Table 3. Occupation in Cervical Carcinoma Patients

Work	Frequency	%
Work	17	31,5
Doesn't work	37	68,5

Based on the results of the research conducted, it was found that 68.5% of cervical carcinoma patients were unemployed. Gunawan (2024) found a balanced proportion between employed and unemployed patients (50% each), with employed patients having a lower risk of depression due to more stable economic factors.⁸

Research by Surjoseto et al. (2022) revealed that the majority of cervical carcinoma patients were unemployed or homemakers (64%), which was associated with anxiety, depression, and loss of ability to perform daily activities. In contrast, research by Wijaya et al. (2020) found that the majority of patients (84.9%) remained

employed, suggesting variations based on social and economic contexts.¹⁷

Marital status

Table 4. Marital Status in Cervical Carcinoma Patients

Marital status	Frequency	%
Marry	46	85,2
Single/Not married yet	8	14,8

Based on the research, it was seen that the majority of cervical carcinoma patients were married, with a percentage of 85.2%. Gunawan (2024) recorded 100% of patients were married or had been married, which was associated with transmission of *Human Papilloma Virus* (HPV) through sexual contact.⁸

Study Raihan, Tjokroprawiro and Konginan (2022) also reported similar results, with 82.3% of patients being married, supporting the findings of Robertus et al. (2022) which shows that the majority of cases of cervical carcinoma occur in married women.¹² Marital status is thought to improve patients' quality of life because it provides higher self-esteem and emotional support from a partner, which helps lower levels of depression.

Conclusion

Based on a study of 54 cervical carcinoma patients at Dr. Ramelan Naval Hospital in 2024, it was found that the rate of extreme depression was the highest, at 35.2%. The majority of patients were aged 19-59 (adults), at 25.9%, and most were unemployed or homemakers (68.5%). In addition, the majority of patients were married or had been married at 85.2%. Further research is expected to examine the relationship between various risk factors and cervical carcinoma. Furthermore, hospitals are expected to complete and review medical records, especially regarding the type of cervical carcinoma. The community is also likely to undergo routine screening because it is essential for women aged 19-59 who are married or have sexual relations, attention to the psychosocial conditions of women with cervical carcinoma to support prognosis and healing, and mental health Education for patients and families to provide moral and emotional support.

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References

1. Nuraini E, Asfeni, Tobing VY. Hubungan Konsep Diri Dengan Strategi Koping Penderita Kanker Serviks yang Menjalani Kemoterapi. *J Keperawatan Hang Tuah* (Hang Tuah Nurs Journal)

[Internet]. 2022;2(2):152–63. Available from: <https://jom.hip.ac.id/index.php/jkh/article/view/490>

2. Evriarti PR, Yasmon A. Patogenesis Human Papillomavirus (HPV) pada Kanker Serviks. *J Biotek Medisiana Indoensia*. 2019;8(1):23–32.
3. Mahrus HW. Karakteristik dan Gambaran Histopatologi Ca Serviks di RSPAL dr. Ramelan Surabaya Periode 2019 - 2021. *Surabaya Biomed J*. 2023;2(3):159–68.
4. Jain M, Yadav D, Jarouliya U, Chavda V, Yadav AK, Chaurasia B, et al. Epidemiology, Molecular Pathogenesis, Immuno-Pathogenesis, Immune Escape Mechanisms and Vaccine Evaluation for HPV-Associated Carcinogenesis. *Pathogens*. 2023;12(12):1380.
5. Bovo AC, Pedrao PG, Guimaraes YM, Godoy LR, Resende JCP, Longatto-Filho A, et al. Combined Oral Contraceptive Use and the Risk of Cervical Cancer: Literature Review. *Rev Bras Ginecol Obs*. 2023;45(12):818–24.
6. Novalia V. Kanker Serviks. *Galen J Kedokt dan Kesehat Mhs Malikussaleh*. 2023;2(1):45.
7. Nuzulia A. Faktor Risiko Kanker Serviks pada Wanita Lanjut Usia di RSD Gunung Jati Kota Cirebon. *Angew Chemie Int Ed*. 2020;6(11):5–24.
8. Gunawan TIP, Chondro F. Hubungan Antara Stadium Kanker dan Depresi pada Pasien Kanker Serviks. *J Penelit dan Karya Ilm Lemb Penelit Univ Trisakti*. 2024;9:30–7.
9. Grassi L, Caruso R, Riba MB, Lloyd-Williams M, Kissane D, Rodin G, et al. Anxiety and Depression in Adult Cancer Patients: ESMO Clinical Practice Guideline. *ESMO Open*. 2023;8(2):101155.
10. Raineri AM, Grotto RL. Assessment of Depression Symptoms in Female Cancer Patients: Focus on Concurrent Validity. *Acta Biomed*. 2020;91(7):16–8.
11. Febyan, Wijaya S, Tannika A, Hudyono J. Peranan Sitokin pada Keadaan Stres sebagai Pencetus Depresi. *J Penyakit Dalam Indones*. 2020;6(4):1–5.
12. Raihan DN, Askandar B, Konginan A. Tingkat Depresi dan Faktor yang Mempengaruhi pada Pasien Kanker Serviks di RSUD Dr. Soetomo. *J Heal*. 2022;9(1):40–52.

13. Golubovic ST, Binic I, Krtinic D, Djordjevic V, Conic I, Gugleta U, et al. Risk Factors and Predictive Value of Depression and Anxiety in Cervical Cancer Patients. *Med.* 2022;58(4):1–8.
14. Azizi A, Achak D, Boutib A, Chergaoui S, Saad E, Hilali A, et al. Association Between Cervical Cancer-Related Anxiety and Depression Symptoms and Health-Related Quality of Life: A Moroccan Cross-Sectional Study. *Clin Epidemiol Glob Heal.* 2023;22.
15. Quick AM, Krok-Schoen JL, Stephens JA, Fisher JL. Cervical Cancer Among Older Women: Analyses of Surveillance, Epidemiology and End Results Program Data. *Cancer Control.* 2020;27:1–9.
16. Wijayati S, Fitriyanti SA, Arwani A. The effect of Spiritual Emotional Freedom Technique (SEFT) therapy on decreased depression level among cervical cancer patients. *Medica Hosp J Clin Med.* 2020;7(2):398–402.
17. Wijayati S, Fitriyanti SA, Arwani A. The Effect of Spiritual Emotional Freedom Technique (SEFT) Therapy on Decreased Depression Level Among Cervical Cancer Patients. *Medica Hosp J Clin Med.* 2020;7(2):392–402.