

Characteristics Associated with Anxiety of Cervical Cancer Patients Undergoing Chemotherapy Programs at Dadi Keluarga Purwokerto General Hospital

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Abstract: Cervical cancer is a disease that attacks the female reproductive system and the second leading cause of death after breast cancer. Cervical cancer is closely related to pain and anxiety and the amount of pain, symptoms and treatment of cervical cancer makes it the main anxiety factor that results in a decrease in physical condition, quality of life and relationships with next of kin. The aim of the study was to find out the characteristics associated with anxiety in cervical cancer patients participating in chemotherapy programs. The research method is quantitative using a descriptive analytic research design. The study was conducted using a cross sectional approach, the population in this study were 37 patients. This study uses an instrument Depression, Anxiety, Stress Scale-14 (DASS14) and used Chi-Square Tests. The results of the research on the anxiety level of chemotherapy patients at Dadi Keluarga General Hospital were in severe anxiety, there was no relationship between age, education level, and income on the anxiety of chemotherapy patients at Dadi Keluarga General Hospital, Purwokerto.

Keywords: Anxiety, Cervical Cancer, Chemotherapy

INTRODUCTION

According to World Health Organization (WHO) 2020, health is a state of complete physical, mental and social well-being and not just a state of being free from illness, disease or disability that enables everyone to live productively socially and economically. Reproductive health refers to the WHO definition of health which is defined as a state of complete physical, mental and social well-being, not only free from disease or disability in all matters relating to the reproductive system as well as its functions and processes.

In women the number one cause of death is breast cancer then cervical cancer. The high mortality rate from cervical cancer globally can be reduced through a comprehensive approach that includes prevention, early diagnosis, screening and effective treatment programs. Screening aims to detect precancerous changes that, if left untreated, can lead to cancer (Wantini & Indrayani, 2019).

WHO shows that 90% of cases of cervical cancer occur in low- and middle-income countries, this condition is caused by poor access to screening and early detection of cancer, including in Indonesia. According to the Ministry of Health, in 2019, there were 23.4 cervical cancer cases per 100,000 population with an average death rate of 13.9 per 100,000 population. The highest cancer prevalence is in Yogyakarta Province, which is 4.86 per 1,000 population. The high number of cervical cancer cases in Indonesia has made WHO place Indonesia as the country with the highest number of cervical cancer sufferers in the world. 80 patients with cervical cancer present at an advanced stage and 94% of these cases die within 2 years (DinKes, 2019).

Several factors are behind the increasing cases of cervical cancer. One of the main causes of cervical cancer 90% is infected human *papillomavirus* (HPV) and the remaining 10% are due to smoking,

history of sexual activity at a young age/multiple partners, long-term birth control pills, more than five births, impaired immunity and not routinely screened IVA/pap smear periodically (Ambarwati, 2020).

Services for cervical cancer patients in communities with low education and low socioeconomic conditions contrast with the status of services in developed countries such as Japan, Western Europe and Australia which already have good health systems with state support to support mass screening of women who have had cervical cancer (Ambarwati, 2020).

Cervical cancer is closely related to pain and anxiety and the amount of pain, symptoms and treatment of cervical cancer makes it the main anxiety factor that results in a decrease in physical condition, quality of life and relationships with next of kin. For this reason, it is very important to know the symptoms and treatment of cervical cancer early in order to understand strategies or ways to deal with existing anxiety. Likewise, during the patient's treatment there are many situations that cause patient anxiety such as medical costs, effects of treatment and also death which causes anxiety in patients (Pradjatmo, 2017).

Anxiety that often arises in patients is generally a change in behavior, panic, unable to concentrate, anxiety, fear, heart beat faster and hands sweaty and decreased sleep quality. Anxiety is felt by the patient, if the patient remembers death or a bad condition that will happen to the patient in the future (Sinaga, 2019).

The main treatments for cervical cancer are radiation therapy, chemotherapy and surgery. Chemotherapy is a way of treating cervical cancer by using chemical drugs to kill cancer cells. The goal of cervical cancer treatment is to destroy cancer cells by reducing the risk of damage to healthy cells. Chemotherapy is believed to shrink cancer cells and reduce tumor growth in the body through vein infusions, or in pill form taken directly or by mouth (Pradjatmo, 2017).

The side effects of chemotherapy and radiation therapy cause many problems, of which fatigue, anxiety and depression are the most common. It has been found in various studies that in patients with gynecological cancer problems who received the first internal radiation therapy, the level of anxiety and distress increases drastically. After 24 hours of treatment, levels of anxiety and depression were increasing. Another study showed that cancer patients suffer from 15% to 40% clinical depression and anxiety (Kaur, 2018).

Conditions and treatment of cancer can cause stress to cancer patients due to loss of role function and facing financial problems and stress will have an impact on psychological conditions including fear, disability and addiction (Pradjatmo, 2017). According to Binka (Hobenu & Naab, 2020), cervical cancer patients experience psychological disorders in four stages, namely when they see the symptoms of the disease, when they are diagnosed, during and after treatment. This disorder creates a negative emotional impact, namely fear of death, and patient anxiety.

One of the factors that influence anxiety is socio-economic status which means a situation that shows the financial ability of the family and the material equipment they have. Furthermore, Indrawati (2015) shows that socio-economic status can be seen as a group of people based on similar characteristics of work, education, and economy. Socio-economic status describes the condition of a person or society from an economic point of view, image is the level of education, income and employment.

Based on the results of Yolanda and Fredy Karwur's research in 2013 related to the assessment of the level of anxiety of physical and psychological symptoms in cervical cancer patients from economically disadvantaged groups who participated in chemotherapy programs, the results obtained were 40% no anxiety, 30% mild anxiety, 20% moderate anxiety and 10% severe anxiety. There is a tendency that patients with high anxiety are patients with public fees, while those with low anxiety are patients with government fees (Jamkesmas). The average patient with high anxiety is a patient with *overhead* costs or general fees, while the symptoms of low anxiety are patients who are subject to government taxes (Jamkesmas). Its relationship with the cultural context of "nrimo", limited knowledge and the state of "capitulation" of the economy. Other factors that trigger patient anxiety are fear of chemotherapy side effects and family fights.

Based on field findings during a pre-survey, in a cancer group interview results it was found that there were three women with cervical cancer experiencing anxiety while undergoing chemotherapy, this anxiety was caused by financing and current conditions. With conditions like this, excessive anxiety can arise as a result of socioeconomic conditions, and the development of cancer stages.

From the description above, the author wants to know the factors associated with anxiety in cervical cancer patients who take part in the chemotherapy program at Dadi Keluarga Purwokerto Hospital and take the research title "Factors Associated with Anxiety in Cervical Cancer Patients Participating in the Chemotherapy Program at Dadi Keluarga Hospital. Purwokerto".

METHOD

This study uses a quantitative research method using a descriptive research design that describes the relationship between two variables, namely the independent variable and the dependent variable, and uses a quantitative approach. *Cross sectional*. This study aims to determine the characteristics associated with the level of anxiety of cervical cancer patients undergoing chemotherapy at Dadi Keluarga General Hospital, Purwokerto.

The number of samples in this study were 37 respondents. These respondents were taken by the method *Non-Probability Accidental Sampling*. The tool used to collect data uses a questionnaire, namely DASS-14 for *Anxiety*. After the data is obtained then it is processed, data processing uses a test *who squares*.

RESULTS

Before carrying out the research phase, the researcher carried out the initial stage, namely the administrative stage which included administrative submissions to Harapan Bangsa University Purwokerto and Dadi Keluarga Purwokerto General Hospital Training Center. The researcher visited the education and training section and met Mrs. Puji as the PJ of the education and training section at Dadi Keluarga Hospital and became an enumerator in this study. Researchers explain the purpose, benefits, and research procedures, and informed *consent* to enumerators. After explaining about the sheet informed *consent* the researcher explained about how to fill out the questionnaire sheet. Then the questionnaire was given to enumerators and will be distributed to prospective respondents who are in the chemotherapy unit at Dadi Keluarga Purwokerto Hospital. Respondents began to fill out the questionnaire after receiving directions from the enumerators. After the questionnaire was filled in by the respondent, the enumerator took the questionnaire sheet back. Furthermore, the enumerator will return the questionnaire to the researcher. On the last day of the study, the researcher administered the questionnaire alone without the enumerator's assistance. After completing the enumerator and the researcher checked again the completeness of the questionnaire that had been filled in. And the last stage of the researcher will process the data, analyze and make a research report.

The results of the study on "Factors Associated with Anxiety in Cervical Cancer Patients Participating in the Chemotherapy Program at Dadi Keluarga Purwokerto General Hospital" which was conducted from 10 January to 11 March 2022 at Dadi Keluarga General Hospital Purwokerto for 37 cervical cancer patients, obtained the following results.

Based on table 1, it shows that most of the patients are between the ages of 51-65 years with a percentage of 51.4% and the smallest are patients aged 36-50 years with a percentage of 48.6%. The education level of the patients was divided into 3 groups where the highest number of patients were patients with low education, namely elementary-junior high school with a total of 20 respondents and a total percentage of 54%. Patients with tertiary education occupy the smallest rank with a total of 5 respondents with a percentage of 13.5%.

Table 1 Frequency Distribution of Characteristics of Cervical Cancer Based on Age, Education, and Occupation/Income, in the Chemotherapy Room of Dadi Keluarga General Hospital, Purwokerto

Variable	Frequency (F)	Percentage (%)
Age		
21-35	-	-
36-50	18	48.6
51-65	19	51.4
66-75	-	-
Level of education		
Low: Elementary-Junior High School	20	54
Medium: SMK / SMA	12	32.4
College	5	13.5
Income (IDR)		
Low: < Rp. 1,970,000	10	27.0
Medium: Rp. 1,970,000–Rp. 3,000,000	26	70.2
High: > Rp. 3,000,000	1	2.7
Total	37	100

The patient's income level varies, namely the highest income level is between IDR 1,970,000-IDR 3,000,000 with a percentage of 70.2%. While the smallest at a high level of income is more than Rp. 3,000,000 with a percentage of 2.7%. The patient's stage level varied, namely at the stage 1B2 level with a total of 10 respondents and a percentage of 27.05.

Table 2 Anxiety Levels of Cervical Cancer Patients

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <7 normal anxiety level	1	2.6	2.7	2.7
<9 mild anxiety level	4	10.3	10.8	13.5
<14 medium emergency level	12	30.8	32.4	45.9
<19 severe anxiety level	12	30.8	32.4	78.4
>20 emergency levels are very severe	8	20.5	21.6	100.0
Total	37	94.9	100.0	

Table 3 Relationship Between Age and Anxiety Level of Cervical Cancer Patients in the Chemotherapy Room of Dadi Purwokerto General Hospital

Age (years)	Emergency level					Total	Bivariate formula	P value
	normal	light	Currently	Critical	Awfully			
21-35	-	-	-	-	-	-	3,142	0,068
36-50	-	1	7	7	3	18		
51-65	1	3	5	5	5	19		
66-75	-	-	-	-	-	-		
Total	1	4	12	12	8	37		

The statistical test results for the relationship between age and anxiety levels obtained $p > 0.005$ which means H_0 is rejected, these results indicate that there is no relationship between age and anxiety level of cervical cancer patients undergoing chemotherapy programs at Dadi Keluarga General Hospital, Purwokerto.

Table 4. Relationship Between Education Level and Anxiety Level of Cervical Cancer Patients in the Chemotherapy Room of Dadi Keluarga Purwokerto General Hospital

Level of education	Emergency level					Total	Bivariate	P value
	Nor mal	Lig ht	Cur rent ly	Critic al	Awfully			
Low	1	3	5	7	4	20	13.348	0.200
Currently	-	1	4	3	4	12		
Height	-	-	3	2	-	5		
Total	1	4	12	12	8	37		

The results of the statistical test for the relationship between education level and anxiety level obtained $p > 0.005$, which means H_0 is rejected, these results indicate that there is no significant relationship between education level and anxiety level of cervical cancer patients undergoing chemotherapy programs at Dadi Keluarga Purwokerto General Hospital.

The results of the Chi Square test between knowledge and anxiety level are statistically significant ($p > 0.05$) which means the hypothesis (H_0) is rejected. These results indicate that there is no significant relationship between income and anxiety levels. Table 5 shows that patients with moderate to high income levels experience mild anxiety more and no one experiences severe anxiety while many patients with low-income levels 1,970,000 experience moderate to severe anxiety.

Table 5. The Relationship Between Income/Occupation Levels with Anxiety Levels of CervicalCancer Patients in The Chemotherapy Room of Dadi Keluarga Purwokerto General Hospital

Age (years)	Emergency level					Total	Bivariate formula	P value
	Normal	Light	Currently	Critical	Awfully			
21-35	-	-	-	-	-	-		0.068
36-50	-	1	7	7	3	18	$R^2 = 1 - \frac{6 \sum d^2}{n(n^2-1)}$	
51-65	1	3	5	5	5	19	3.142	
66-75	-	-	-	-	-	-		
Total	1	4	12	12	8	37		

DISCUSSION

The patients in this study were cervical cancer patients in the chemotherapy room at Dadi Keluarga Purwokerto General Hospital from January to March 2022. The number of patients in this study was 37. The results of research that has been done are that most patients experience very severe levels of anxiety, this is because most of the patients studied have undergone treatment more than once and they have had cervical cancer for a long time.

The patient's very severe level of anxiety still needs to be watched out for by nurses, because without nursing care this level of anxiety can hinder the course of treatment, with very severe anxiety it can even increase to panic.

Correlation between Age and Anxiety Level of Cervical Cancer Patients in the Chemotherapy Room of Dadi Keluarga Purwokerto General Hospital

The results of the study with the Chi-Square test obtained $p = 0.068$ with a significance level of $\alpha 0.05$, it was found that there was no relationship between age and the anxiety level of cervical cancer patients. This shows that age level cannot affect a person's anxiety in dealing with illness so that increasing a person's age level will motivate him to live a healthy and better life, one of which is during the chemotherapy treatment process, besides being better at treatment at that age also makes every Cervical cancer sufferers are getting closer to God and more obedient in carrying out their worship.

In this study it can be seen that those aged 36-50 years will have more adaptive coping with anxiety and are able to control feelings of anxiety compared to respondents aged 51-65 years. Because the higher the age level of the respondent, the more difficult it is to receive information so it is easy to experience anxiety.

Correlation between Education Level and Anxiety Level of Cervical Cancer Patients in the Chemotherapy Room of Dadi Keluarga Purwokerto General Hospital.

The results of the study with the Chi-Square test obtained results of $p = 0.200$ with a significance level of $\alpha 0.05$ and found that there was no relationship between education level and anxiety level of cervical cancer patients. This shows that the level of education is mostly at a low level of education, namely elementary-junior high school, for cervical cancer sufferers who have a low education level has nothing to do with anxiety levels.

Because he had suffered from cervical cancer for a long time, he had a lot of information, both information obtained from nurses/through health education (PENKES), as well as the use of electronic media/mobile phones owned by each patient, so that most of these patients received sufficient information.

Correlation between Income Level and Anxiety Level of cervical cancer patients in the Chemotherapy Room of Dadi Keluarga Purwokerto General Hospital.

Based on table 4.4 the results of the study using the Chi-Square test obtained $p = 0.733$ with a significance level of $\alpha 0.05$, it was found that there was no relationship between income level and anxiety level of cervical cancer patients. This shows that some or almost all cervical cancer patients do not work.

However, there are some of them who receive civil servant pension funds and also the entire cost is borne by the government. However, related to transportation, food, and other needs, patients get it from their families/children, who on average are already working.

CONCLUSION

Based on the results of research related to factors related to gold in cervical cancer patients undergoing chemotherapy programs at Dadi Keluarga Purwokerto General Hospital in 2022, it can be seen that the relationship between age, education, and work/income characteristics has nothing to do with anxiety in cervical cancer patients. After statistical tests, the following conclusions can be drawn: Respondents in this study were 37 cervical cancer patients in the Chemotherapy Room of Dadi Keluarga Purwokerto General Hospital, all patients had very high levels of anxiety. For Research Sites: Judging from the impact of anxiety experienced by cervical cancer patients, it can affect the chemotherapy process. For Respondents: For women who are experiencing cervical cancer, it is hoped that they can increase their knowledge about health care, anxiety and know the characteristics related to the anxiety of cervical cancer patients. For Further Researchers: For future researchers to be able to develop research by expanding material such as research related to anxiety management (for example: anxiety management by using relaxation listening to music) or *support system care* factors that affect anxiety such as sources of information and family support or can be more specifically related to anxiety levels.

REFERENCE

- Ambarwati, R., Hasanah, N., Rsud, P., & Sidoarjo, K. (2019). *Chemotherapy in the Work Area of the Paketkeling Health Center in Surabaya Abxiety Of Breast Cancer Client Who Had Chemotheraoy In The Work Area Of* (Kemoterapi di Wilayah Kerja PT Puskesmas Keeling Surabaya Absietas Klien Kanker Payudara Yang Menjalani Kemoterapi Di Wilayah Kerja). XII(2), 107–114.
- Anita Widiastuti, N. A., Indriyani, I. A. T., Hasliana Haslan, H. K. C. S. H., & Sumiyati, N. B. (2021). *Reproductive Health Epidemiology* (Epidemiologi Kesehatan Reproduksi) - Google Books (p. 84).
- Astuti, T., Desvianti, R. A., & Merah Aristocracy. (2019). *The Influence of Psychoeducation on Mother's Anxiety Pre Breast Cancer Surgery* (Pengaruh Psikoedukasi Terhadap Ibu Kecemasan Pra Operasi Kanker Payudara). *Journal of Health* Volume 10, Number 1, April 2019 ISSN 2086-7751 (Print), ISSN 2548-5695 (Online) [Http://ejournal.Poltekkes-Tjk.Ac.Id/Index.Php/JK](http://ejournal.poltekkes-tjk.ac.id/index.php/jk), 11, 53–63 .
- Chen, R., & CancerHelp, T. (2012). *Smart Solutions to Prevent & Treat Cancer* (Solusi Cerdas Mencegah & Mengobati Kanker). (p. 102). <https://books.google.com/books?id=tKQZiOzfh7MC&pgis=1and>
- Karwur Anxiety Levels of Cervical Cancer Patients in Low Economic Groups Joining the Chemotherapy Program at Moewardi, Y., & Eva Yolanda Hospital and Ferry Fredy Karwur Faculty of Health Sciences, Satya Wacana Christian University Jl Kartini, A. (2013). The level of Anxiety in Cervical Cancer Patients of Lower Socioeconomic Status Receiving Chemotherapy in RSUD Dr. Moewardi. In July-December (Vol. 5, Issue 2).
- Deny Wardani. (2020). *Literature Review: Factors Associated with Anxiety in Breast Cancer Patients Undergoing Chemotherapy* (Tinjauan Pustaka: Faktor-Faktor Yang Berhubungan Dengan Kecemasan Pada Pasien Kanker Payudara Yang Menjalani Kemoterapi).
- Dorsinta Siallagan, D. L. (2018). *The level of anxiety in facing childbirth based on health status, gravidity and age in the working area of the Jombang Health Center* (Tingkat kecemasan menghadapi persalinan berdasarkan status kesehatan, graviditas dan usia di wilayah kerja Puskesmas Jombang).

- Indonesian Journal of Midwifery (IJM), 1(September), 104–110.
<https://doi.org/http://dx.doi.org/10.35473/ijm.v1i2.101>
- Erniawati, Purnamasari, D., Risnayanti, Jusni, & Kamaruddin, M. (2020). *Knowledge Level of Young Women About Cervical Cancer in Bialo Village, Gantarang District, Bulukumba Regency in 2020. Medika Alkhairaat (Tingkat Pengetahuan Remaja Putri Tentang Kanker Serviks di Desa Bialo Kecamatan Gantarang Kabupaten Bulukumba Tahun 2020. Medika Alkhairaat). Journal of Medical and Health Research*, 2(3), 131–135. <https://doi.org/10.31970/ma.v2i3.61>
- Fikri, M., & Fitriani, D. R. (2021). *The Effect of Music Therapy on the Anxiety Level of Cancer Patients at the Samarinda Cancer Shelter (Pengaruh Terapi Musik Terhadap Tingkat Kecemasan Pasien Kanker di Shelte Kanker Samarinda)*. 3(1), 66–75.
- Fikry, T. R., & Khairani, M. (2017). *Emotional Intelligence and Anxiety of Undergraduate Thesis Guidance Students at Syiah Kuala University (Kecerdasan Emosi dan Kecemasan Mahasiswa Skripsi Bimbingan Skripsi Universitas Syiah Kuala)*. JURKAM: Andi Matappa Counseling Journal, 1(2), 108. <https://doi.org/10.31100/jurkam.v1i2.60>
- Handayani. (2012). *Conquering Cervical Cancer and Breast Cancer with 3 Natural Therapies (Menaklukkan Kanker Serviks dan Kanker Payudara dengan 3 Terapi Alami)*. South Jakarta. AgroMedia Pustaka.
- Hanifah, Dewi. 2019. *Factors Influencing Antenatal Anxiety (Faktor- Faktor Yang Mempengaruhi Kecemasan Antenatal)*. *Jurnal Kebidanan Malahayati* 5(1):16–23. <https://doi.org/10.33024/jkm.v5i1.888>.
- Hardiyati. (2020b). *Anxiety During the Covid-19 Pandemic - Google Books (M. Galang Pratama (Ed.)). Jariah Publishing Intermedia*. https://www.google.co.id/books/edition/Kecemasan_Jadi_Pandemi_Covid_19/4rUKEAAAQB-AJ?hl=id&gbpv=1&dq=Kecemasan+ Saat+Pandemi+Covid-19&printsec=frontcover
- Hastuti, Y. D., & Mulyani, E. D. (2019). *Anxiety of Patients with Coronary Heart Disease After Percutaneous Coronary Intervention. Indonesian Nurse Journal (Kecemasan Pasien Penyakit Jantung Koroner Setelah Intervensi Koroner Perkutan. Jurnal Perawat Indonesia).* 3(3), 167. <https://doi.org/10.32584/jpi.v3i3.427>
- Hermawan, I. (2019). *Educational Research Methodology (Qualitative, Quantitative and Mixed Method) (Metodologi Penelitian Pendidikan (Kualitatif, Kuantitatif dan Metode Campuran)) - Google Books. In Hidayatul Quran (p. 200)*. https://books.google.co.id/books?hl=en&lr=&id=Vja4DwAAQBAJ&oi=fnd&pg=PP10&dq=pengertian+metode+kuantitatif&ots=XvEkk_Z1js&sig=1Q_Tt4M6PpYKhRGn82rdlFprDhk&redir_esc=y#v=onepage&q=pengertian%0f=quantitative method //books.google.com.my/books?hl=en&lr=&id=Vja4DwAAQBAJ&oi=fnd&pg=PP10&dq=pengertian+metode+kuantitatif&ots=XvEkk_Z1js&sig=1Q_Tt4M6PpYKhRGn82rdlFprDhk&redir_esc=y#v=onepage&q=pengertian%0f=quantitative method
- Hidayati, A. O., & Arifah, S. (2020). *Factors of Anemia Occurrence in Cancer Patients Receiving Radiotherapy and or Chemotherapy. Journal of Health (Faktor Terjadinya Anemia pada Pasien Kanker yang Mendapat Radioterapi dan atau Kemoterapi. Jurnal Kesehatan).* 11(1), 29. <https://doi.org/10.26630/jk.v11i1.1629>
- Life, H. L. (2020). DOI: <http://dx.doi.org/10.33846/sf11nk105> Psychological Aspects of Nursing Services for Breast Cancer Patients: 11(April), 25–32.
- Hobenu, K. A., & Naab, F. (2020). *A qualitative study of the physical consequences experienced by women with cervical cancer in Accra, Ghana (Sebuah studi kualitatif tentang konsekuensi fisik yang dialami oleh wanita penderita kanker serviks di Accra, Ghana)*. *African Journal of Midwifery and Women's Health*, 14(2), 2–12. <https://doi.org/10.12968/ajmw.2019.0006>
- Indrawati, E. S. (2015). *Socioeconomic Status and Intensity of Family Communication in Housewives at the Kidul Stage, North Semarang. Undip Journal of Psychology (Status Sosial Ekonomi dan Intensitas Komunikasi Keluarga Pada Ibu Rumah Tangga Punggung Kidul Semarang Utara. Jurnal Psikologi Undip).* 14(1), 52–57. <https://doi.org/10.14710/jpu.14.1.52-57>
- Kaur, M., Agnihotri, M., Das, K., Rai, B., & Ghai, S. (2018). *Effectiveness of an Interventional Package on the Level of Anxiety, Depression, and Fatigue among Patients with Cervical Cancer (Efektivitas Paket*

Intervensi terhadap Tingkat Kecemasan, Depresi, dan Kelelahan Pasien Kanker Serviks). *Asia-Pacific Journal of Oncology Nursing*, 5(2), 195–200. https://doi.org/10.4103/apjon.apjon_56_17

- Kesehatan, B. S., Dan, G., Di, U., Kerja, W., & Jombang, P. (2018). Tingkat kecemasan menghadapi persalinan berdasarkan status kesehatan, graviditas dan usia di wilayah kerja puskesmas jombang. 1(September), 104–110.
- Kesehatan, J., Pasien, K., Mamae, C. A., & Tindakan, D. (2019). *Viva medika*. 11, 53–63.
- Kundryanti, R., Indrayani, T., & Irawati, D. (2020). Faktor - Faktor Yang Berhubungan Dengan Kecemasan Pada Wanita Usia Subur Terhadap Pemeriksaan IVA di Puskesmas Bula Kecamatan Bula Kabupaten Seram Bagian Timur. *Journal for Quality in Women's Health*, 3(1), 31–36. <https://doi.org/10.30994/jqwh.v3i1.46>
- Nugraheni, C. (2014). Faktor-Faktor Yang Berhubungan Dengan Tingkat Kecemasan Pasien Kanker Di Poli Bedah Onkologi Rumah Sakit Hasan Sadikin Bandung. *Jurnal Medika Cendikia*, 1, 14–24.
- Pradjatmo, H., Nisman, W. A., & Fatmawati, Y. (2017). Quality of life of cervical cancer patient with support from nuclear family and extended family in Dr. Sardjito general hospital, Yogyakarta Indonesia: a comparative study. *International Journal of Research in Medical Sciences*, 5(8), 3554. <https://doi.org/10.18203/2320-6012.ijrms20173561>
- Sandu Siyoto, SKM., M. K., & M. Ali Sodik, M. . (2015). *Basic Book of Research Methodology (Buku Dasar Metodologi Penelitian)*. (Ayup (Ed.); –Print 1). Yogyakarta: Literacy Media Publishing, June 2015.
- Safira, A. M., Studi, P., Dokter, P., Kedokteran, F., & Surakarta, U. M. (2021). Keluarga terhadap tingkat kecemasan remaja di era pandemic Covid-19.
- Sigalingging et all. (2020). Perbandingan Tingkat Kecemasan penderita Kanker Serviks yang sedang menjalani kemoterapi sebelum dan sesudah Latihan progressive muscle relaxation di Surakarta
- Sinaga, D. M., Santosa, H., & Lubis, N. (2000). *Pengalaman Pasien Kanker Serviks dalam mengatasi Kecemasan*
- Stuart, G. W., Keliat, B. A., & Pasaribu, J. (2016). *Keperawatan Kesehatan Jiwa Stuart*. Singapore: Elsevier, 1–31.
- Wantini, N. A., & Indrayani, N. (2019). Deteksi Dini Kanker Serviks dengan Inspeksi Visual Asam Asetat (IVA). *Jurnal Ners Dan Kebidanan (Journal of Ners and Midwifery)*, 6(1), 027–034. <https://doi.org/10.26699/jnk.v6i1.art.p027-034>
- Yaslina, Y., & Yunere, F. (2020). Prosiding Seminar Kesehatan Perintis E-ISSN : 2622-2256 Hubungan Jenis Kelamin , Tempat Bekerja dan Tingkat Pendidikan Dengan Kecemasan Perawat Dalam Menghadapi Pandemi Covid-19 Prosiding Seminar Kesehatan Perintis E-ISSN : 2622-2256. 3(1), 63–69.