

Supportive Care Needs Among Breast Cancer Patients Undergoing Chemotherapy in Gorontalo

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ABSTRACT

Breast cancer patients undergoing chemotherapy often experience significant side effects that impact their physical and psychosocial well-being, necessitating a clear understanding of their supportive care needs for effective patient management. This study aimed to describe the supportive care needs among breast cancer patients undergoing chemotherapy at a regional public hospital in Gorontalo, Indonesia. A descriptive cross-sectional study was conducted involving 38 breast cancer patients undergoing chemotherapy at RSUD Prof. Dr. H. Aloei Saboe, recruited via consecutive sampling. Supportive care needs were assessed using the Supportive Care Needs Survey Short Form 34 (SCNS-SF34). The data were analyzed descriptively using frequency distributions to determine the proportion of patients reporting unmet needs in various domains. The highest prevalence of unmet supportive care needs was identified in the physical domain, with 57.9% (n=22) of respondents indicating a need for support. Lower levels of unmet needs were reported for the psychological domain (39.5%, n=15 needing support), the sexual domain (23.7%, n=9 needing support), and the information domain (13.2%, n=5 needing support). Notably, no respondents (0%) reported unmet needs in the care support domain, indicating this aspect of care was perceived as thoroughly met. Physical symptoms represent the most prominent area of unmet supportive care needs for breast cancer patients undergoing chemotherapy in this Gorontalo hospital setting. While care support appears satisfactory, targeted interventions focusing on managing physical side effects are crucial for improving patient well-being during treatment.

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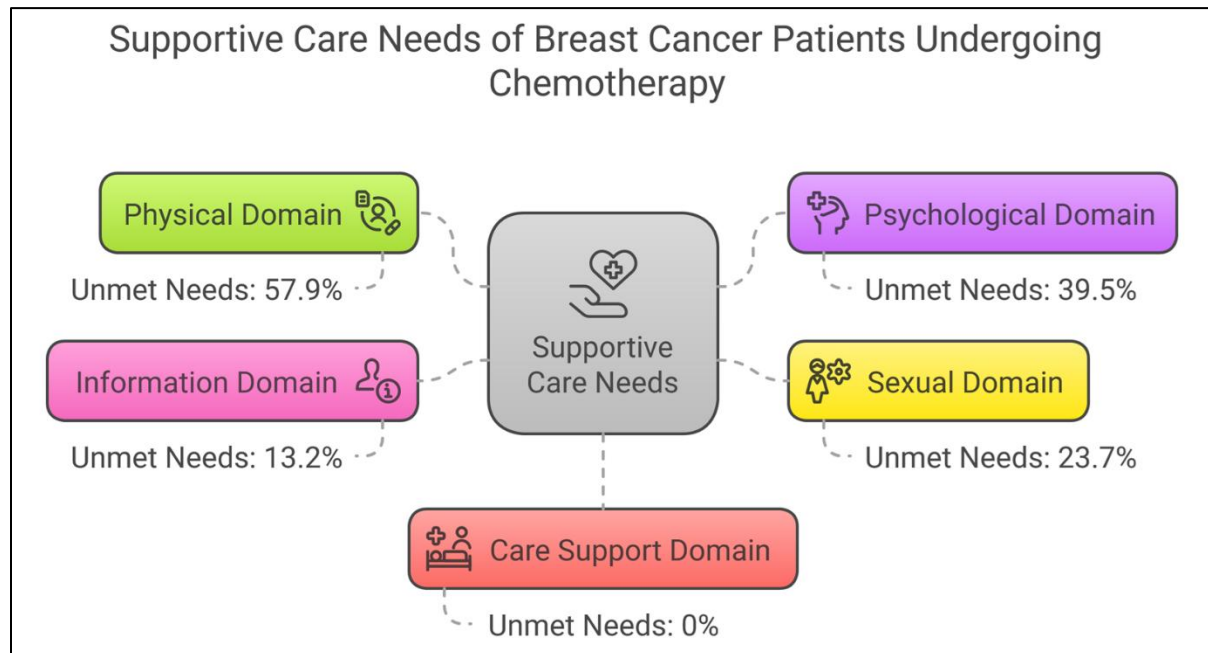


Quick Response Code

Key Messages:

- The most supportive care needs for breast cancer patients in Gorontalo are Physical domain (57,9%)
- The lowest supportive care needs for breast cancer patients in Gorontalo are the care support domain (100%)
- Trust and openness are an effective way to find out what the support care needs are in breast cancer patients.

GRAPHICAL ABSTRACT



INTRODUCTION

Breast cancer (*carcinoma mammae*) is a malignancy originating from the breast tissue, both the duct and lobe epithelium. *Ca Mammae* occurs due to cell conditions that have lost their normal control and mechanism, leading to abnormal, rapid, and uncontrolled growth [1]. The abnormal cells in the breast will continue to grow, eventually forming a lump (tumor) in the breast. If these lumps are not promptly and effectively managed or controlled, they can lead to cancer and even spread (metastasize) to other parts of the body, potentially resulting in death [2].

Breast cancer is the most commonly diagnosed cancer in women, accounting for more than 1 in 10 new cancer diagnoses every year. Breast cancer develops silently, and the majority of cases are discovered during routine examinations [3]. Breast cancer is currently known to be the leading cause of cancer-related death in women and one of the most prevalent cancers affecting women worldwide. The prevalence of breast cancer continues to increase each year [4]. The number of women suffering from breast cancer has dramatically risen in recent years. Breast cancer poses many challenges for women [5].

In 2020, it was estimated that there were 19.3 million new cases of cancer worldwide, with nearly 10 million cancer-related deaths [6]. The World Health Organization (WHO) reported that in 2020, there were 2.3 million women diagnosed with breast cancer and 685,000 deaths globally [7]. Breast cancer is also the leading cause of cancer deaths in women in Indonesia. The prevalence data in Indonesia in 2020 indicated that the number of new breast cancer cases reached 68,858 out of a total of 396,914 new cancer cases in Indonesia. The number of deaths due to breast cancer amounted to over 22,000 female fatalities [8].

Women diagnosed with breast cancer must undergo treatment to recover from the condition. Some cancer treatments include surgery, radiation, and chemotherapy [9]. During these cancer treatments, breast cancer patients may experience various side effects, one of which is chemotherapy. Some effects that cancer patients may experience include neutropenia, lymphedema, hair loss, nausea and vomiting, decreased concentration and memory loss, cancer pain, thrombosis, and other side effects [10]. Chemotherapy not only benefits patients but also has post-treatment impacts because the drugs used in chemotherapy not only target the smallest units of cancer but also affect healthy cells [11]. The multitude of side effects that can occur in cancer patients, and their lack of knowledge about the phases they will experience during chemotherapy treatment, render patients unprepared. Consequently, many cancer patients eventually discontinue their treatment [12].

In addition to the physical side effects, it is also important to consider other factors that occur in cancer patients during treatment, which they need to enhance their comfort and sense of security during cancer treatment, commonly known as supportive care needs. Supportive care involves interventions that can be implemented to improve the quality of life for breast cancer survivor patients with a serious or life-threatening illness. Cancer patients undergoing therapy require supportive care to prevent side effects of therapy and management of physical and psychosocial conditions during treatment. The purpose of supportive care is to prevent or treat as early as possible the symptoms caused by the disease, including side effects of treatment or therapy, and other problems related to the disease or treatment such as psychological, social, and spiritual problems [13].

Supportive care needs can be required at any point throughout the breast cancer journey, from diagnosis to the end of treatment, and even during the palliative phase [14]. Needs arise when an individual lacks the capacity to cope with their problems and requires external resources to achieve well-being [15]. These needs can be categorized into five main domains: psychological, healthcare system and information, physical and daily living, patient care and support, and sexuality [14]. While several studies have focused on the supportive care needs of breast cancer patients, very few specifically address the supportive care needs of breast cancer patients in Indonesia, including in Gorontalo.

The study conducted by Galves-Hernandez, et al [16] indicates that during breast cancer treatment, many patients experience several problems such as a lack of information regarding cancer treatment, psychological disturbances, fear that the cancer will spread quickly, and concerns from the patient's close relatives. The study by Kajoei, et al [17] demonstrates that breast cancer survivors have diverse supportive care; in 10 dimensions, including psychological, informational, physical, social, spiritual, interpersonal, family-related, practical, patient-doctor communication, and cognitive needs. The most commonly encountered needs were psychological/emotional needs, followed by healthcare system/information needs. Comprehensive knowledge of the needs and experiences of patients during the survival period is crucial to provide patient- and family-centered care. It is essential to determine how to tailor supportive care to meet patients' needs and improve their quality of life.

A study about supportive care needs showed that support care needs that are most important for these patients are information and psychological needs [18]. Support care needs for breast cancer patients encompass various domains. Breast cancer patients express fear regarding the metastasis process, experience sadness and feelings of death and dying, demonstrate concern for the patient's close ones, and feel down or depressed. Younger patients have more unmet needs across all domains. Additionally, married women have more unmet support care needs related to sexuality. Beliefs, support structures, optimism, and access to information are factors that can influence support care needs in breast cancer patients. Available educational and psychological support programs need enhancement to address the unmet support care needs of newly diagnosed breast cancer patients. Timely psychological support should be provided to women with subclinical or clinical Fear of Cancer Recurrence (FCR) to meet their needs in coping with the uncertainty, fear, and concerns stemming from the possibility of recurrence [19]. Exposure to breast cancer is a stressful event that can jeopardize various aspects of physical, mental, and familial health. Given the profound psychological consequences of breast cancer in affected women, it is crucial to develop appropriate treatment protocols to address its psychological implications [20]. This warrants patients to experience discomfort during cancer treatment and necessitates supportive care from healthcare workers. This study aims to determine the overview of supportive care needs in breast cancer patients who are undergoing chemotherapy in Gorontalo.

METHODS

This quantitative study employs a descriptive analytical design with a cross-sectional approach. The study was conducted to examine the overview of supportive care needs in breast cancer patients. Using a consecutive sampling technique, the study's sample size comprised 38 breast cancer patients undergoing chemotherapy at RSUD Prof. Dr. H. Aloei Saboe Regional Public Hospital in Gorontalo city. The data collection involves demographic data, including age, duration of cancer, duration undergoing chemotherapy, companions during chemotherapy, family disease history, and cancer stage.

For supportive care needs information, the procedure involved administering the Supportive Care Needs Survey Short Form 34 (SCNS-SF34) questionnaire, developed by the New South Wales Cancer Council in Australia [21], which has been utilized in previous studies. The data analysis employed in this study was univariate analysis with the measurement scale of variables in the form of a categorical scale. Consequently, the data was depicted in the form of a frequency distribution.. The questionnaire provides five domain questions: physics, psychology, care support, information, and sexual domain. Each domain has its questions, and respondents will answer in two categories, which are whether they need or do not need. This questionnaire is addressed to breast cancer patients when the patients come to the hospital to receive chemotherapy, and also by phone after back to their homes.

The questionnaire has undergone Ethical Clearance with the number: 330/KEP/EC/UNW/2022, and has been deemed ethically feasible in previous studies.

RESULTS

Based on the respondent characteristics data (Table 1), it indicates that the age of respondents of breast cancer patients undergoing chemotherapy is predominantly in the early elderly age range, comprising 15 respondents (39.5%). The duration of cancer in breast cancer patients who are undergoing chemotherapy is mostly in the <1 year range, totaling 24 respondents (63.2%). The duration of undergoing chemotherapy for breast cancer patients is mostly in the range of 1-3 months and in the range of > 3 months, with 13 respondents (34.2%) each, the companions of respondents with breast cancer undergoing chemotherapy are all in the category of having a companion when undergoing chemotherapy, amounting to 38 respondents (100%). The family disease history of respondents with breast cancer undergoing chemotherapy was mostly in the category of no family history of disease, with 25 respondents (65.8%). the cancer stage of respondents with breast cancer undergoing chemotherapy mostly in the range of grade 2, with 17 respondents (44.7%).

Table 1. Respondent Characteristics

Respondent Characteristics	n	%
Age		
26 - 35 years	3	7,9
36 – 45 years	11	28,9
46 - 55 years	15	39,5
56 – 65 years	9	23,7
Duration of cancer		
< 1 Years	24	63,2
2-3 years	11	28,9
> 3 years	3	7,9
Duration undergoing Chemotherapy		
< 1 month	12	31,6
1-3 months	13	34,2
> 3 months	13	34,2
Companions during Chemotherapy		
Present	38	100
Absent	0	0
Family disease history		
Existing	13	34,2
None	25	65,8
Cancer Stage		
Grade 1	7	18,4
Grade 2	17	44,7
Grade 3	11	29
Grade 4	3	7,9
Total	38	100.0

Table 2 show that supportive care needs in each domain, including physical, psychological, information, care support, and sexual. Each domain has several questions to support researchers in understanding patients' needs when they are undergoing chemotherapy. Each domain question will have two categories of answers, those are needed or do not needed. The questions are adopted from the Supportive Care Needs Survey Short Form 34 (SCNS-SF34) questionnaire, developed by the New South Wales Cancer Council in Australia [21].

Table 2. Respondent Domain

Psychological Domain	n	%
Anxiety		
Need	24	63,2
Do not need	14	36,8
Feeling sad or depressed		
Need	23	60,5
Do not need	15	39,5
Feeling sad		
Need	21	55,3
Do not need	17	44,7
Fear of cancer spreading		
Need	26	68,4
Do not need	12	31,6
Worry about treatment outcomes beyond control		
Need	21	55,3
Do not need	17	44,7
Uncertainty about the future		
Need	21	55,3
Do not need	17	44,7
Learning to feel in control of the situation		
Need	9	23,7
Do not need	29	76,3
Staying positive		
Need	2	5,3
Do not need	36	94,7
Thoughts about death and dying		
Need	16	42,1
Do not need	22	57,9
Thinking about the worries of your loved ones		
Need	23	60,5
Do not need	15	39,5
Physical domain		
Pain		
Need	29	76,3
Do not need	9	23,7
Lack of energy/fatigue		
Need	32	84,2
Do not need	6	15,8
Frequently feeling unwell		
Need	30	79
Do not need	8	21
Wandering around the house		
Need	11	29
Do not need	27	71
Unable to do usual activities		
Need	25	65,8
Do not need	13	34,2
Information Domain		
Provided with information (written) about		

important aspects of your treatment		
Need	11	29
Do not need	27	71
Provided with information (written, diagrams, pictures) about the management aspects of your illness and its side effects at home		
Need	13	34,2
Do not need	25	65,8
Given an explanation about the tests for which you need clarification		
Need	16	42,1
Do not need	22	57,9
Given adequate information about the benefits and side effects of treatment, before you choose to undergo it		
Need	16	42,1
Do not need	22	57,9
Informed about your test results as soon as possible		
Need	14	36,8
Do not need	24	63,2
Informed about controlled or reduced cancer (remission)		
Need	19	50
Do not need	19	50
Knowing what you can do to help yourself recover		
Need	4	10,5
Do not need	34	89,5
Having access to professional counseling (e.g., psychologist, social worker, counselor, specialized nurse) if you, your family, or friends need it		
Need	6	15,8
Do not need	32	84,2
Treated as a human, not just a case		
Need	2	5,3
Do not need	36	94,7
Treated at the hospital or clinic that is as physically comfortable as possible		
Need	1	2,6
Do not need	37	97,4
Having one hospital staff member you can talk to about all aspects of your condition, treatment, and follow-up		
Need	6	15,8
Do not need	32	84,2
Care support domain		
More options about cancer specialists you meet		
Need	3	7,9
Do not need	35	92,1
More options about hospitals to be visited		
Need	3	7,9
Do not need	35	92,1
Assurance from medical staff that what you feel is normal		
Need	1	2,6
Do not need	32	97,4

Hospital staff promptly attend to your physical	37	97,4
Need		
Do not need	1	2,6
	37	97,4
Sexual Domain		
Changes in sexual desire		
Need	12	31,6
Do not need	26	68,4
Changes in sexual relations		
Need	13	34,2
Do not need	25	65,8
Provided with information about sexual relationships		
Need	9	23,7
Do not need	29	76,3

Table 3 indicates that of all domains, the most needed by patients is support from the physical domain, with 22 people (57,9%). Meanwhile, no respondents said they needed support in the care support domain during chemotherapy.

Table 3. Description of supportive care needs of respondents undergoing chemotherapy in each domain based on 34 SCNS-SF34 statements (n=38)

Domain	n	%
Physical		
Need	22	57,9
Do not need	16	42,1
Psychological		
Need	15	39,5
Do not need	23	60,5
Care Support		
Need	0	0
Do not need	38	100
Information		
Need	5	13,2
Do not need	33	86,8
Sexual		
Need	9	23,7
Do not need	29	76,3
Total	38	100.0

DISCUSSION

Supportive care in cancer involves the prevention and management of the adverse effects of cancer treatment. This includes the management of physical and psychological symptoms as well as the side effects from the continuous treatment experience from diagnosis, cancer treatment, and post-treatment. Undergoing rehabilitation, secondary cancer prevention, survivorship, and end-of-life care are integrated in supportive care [22]. Information-related issues and supportive care needs are consistently identified in accordance with the problems experienced by cancer patients undergoing treatment [23]. Cancer patients returning home from the hospital often experience both physical and psychological complaints due to undergoing surgery and medical interventions, which are urgently needed by cancer patients and their families [24]. Supportive care needs can be measured using several assessment instruments, including the Supportive Care Needs Survey (SCNS). SCNS is an instrument used for evaluating perceived needs in individuals diagnosed with cancer. This instrument consists of various questionnaire types that can be selected based on the needs. Several factors assessed using this questionnaire include psychological needs, health information, physical and daily living requirements, care and support information, as well as sexual needs [25]

Based on the data collected through the Supportive Care Needs Survey Short Form 34 (SCNS SF-34), it can be depicted that the level of fulfillment of supportive care needs in breast cancer patients at RSUD Aloei Saboe Regional Public Hospital is partially unmet, necessitating efforts to address these needs. Conversely, if supportive care needs are already met, cancer patients feel content and do not perceive the need for assistance in meeting their needs. The following is an explanation for each domain of needs in breast cancer patients.

The physical domain is one of the aspects most needed by breast cancer patients in this study. Physical is one aspect that is greatly affected in breast cancer patients who are undergoing chemotherapy. Based on the study's results, it is known that 42.1% of respondents need assistance in addressing the physical problems they face. Some physical problems that require support for cancer patients include pain (76.3%), lack of energy (84.2%), and frequent feelings of being unwell (79%). These results align with the study conducted by [26], which states that pain is the most crucial factor needed by cancer patients. Cancer patients undergo various treatments for their healing process, such as chemotherapy, surgery, and radiation therapy. These treatments have significant side effects on patients, such as fatigue, nausea, and vomiting, as well as difficulty in performing daily activities. These factors contribute to the high unmet physical needs [27]. This is also experienced by breast cancer patients undergoing chemotherapy in Gorontalo. So, providing this aspect is an important thing to do so that the cancer treatment process is not interrupted.

The next domain is the psychological need, and this study indicates that 39.5% of patients require assistance with psychological issues. This is due to feelings of anxiety, sadness, fear of cancer spreading, efforts to think positively, and fear of death [25]. Another factor that affects the psychology of breast cancer patients is the stage of breast cancer. This study reveals that 44.7% and 29% are in stages one and two, respectively. These findings follow the study by [28] which states that cancer stage is one of the factors associated with psychological distress in cancer patients in Ethiopia. This is related to the fact that cancer patients in higher stages (II-IV) exhibit more severe signs and symptoms of cancer, leading them to worry about its spread and the various types of cancer treatment they will undergo [29]. Additionally, based on the study findings, it is also known that all patients are always accompanied by family or partners during their cancer treatment, which helps reduce the anxiety experienced by the patients. This result is supported by research results, which state that family support during cancer treatment is associated with coping strategies and lower anxiety levels in cancer patients undergoing chemotherapy [30].

Sexuality is a problem experienced by some cancer patients, accounting for 23.7% of cases. This is due to cultural influences that cause patients to be unwilling to discuss their sexual needs. Patients are affected by conservative cultural norms and a taboo associated with discussing their sexual behavior. On the other hand, patients feel that other needs are more important than their needs [27]. This is in line with the study conducted [31] in Sarawak, which stated that discussing patients' sexual needs is an extremely intimate issue for discussion within the Asian community. In this research, most patients say that they have problems with changes in sexual relationships and changes in sexual desire, and need supportive care on these problems. This result is aligned with research in Yogyakarta. They said that there is a significant proportion of patients with breast cancer who have sexual dysfunction following chemotherapy. The problems like vaginal dryness, decreased libido and dyspareunia were the commonest symptoms observed [32].

In the information domain, 13.5% of patients expressed the need for assistance in this aspect. These results differ from the study conducted in Sarawak [31], as well as the study by Afiyanti [33] conducted in Indonesia, which placed the information system as the highest-ranking factor most needed by patients. The healthcare system and information are important aspects that influence patients' treatment. Patients seek to understand the treatments they receive and how these treatments can cure their illness, why these specific treatments were chosen, and whether the treatments have any drawbacks or advantages. Patients also strive to gather information about their disease diagnosis and prognosis. Additionally, patients also desire to be informed about their progress and treatment, including information about the possibility of their illness recurring, how long they will be in the hospital, and when they can expect to return to normal life [34]. Moreover, cancer patients also require more information about the

side effects of treatment after chemotherapy. Providing the necessary information back to patients and their families is beneficial in strengthening their psychological condition [35]. In addition to this, the duration of suffering from cancer also affects the information needs of cancer patients. As many as 63.2% of patients are newly diagnosed with cancer for less than a year. In terms of the duration of therapy, 31.6% of patients have undergone cancer treatment for less than a month, indicating that respondents in this study require a lot of information about the disease.

Care support is also a factor that becomes a necessity for cancer patients. However, in this study, cancer patients undergoing chemotherapy felt that the care support received during treatment is sufficient. Care support encompasses various aspects, such as the completeness of the equipment used in the treatment process, how healthcare workers provide assistance and support during treatment, and the ability to engage in effective communication [35] portable during treatment as they constantly receive support from their families. Additionally, patients are satisfied with the availability of cancer patient services close to their place of residence, as previously, cancer patients had to undergo treatment outside the city. Healthcare providers also consistently provide information regarding the symptoms experienced by patients during treatment, which is considered normal, thereby helping them feel more at ease.

CONCLUSION

Supportive care needs are required by cancer patients undergoing treatment, particularly chemotherapy. In the domains of physical, psychological, information, and sexual. The physical domain is the most prominent need, and care support is the domain where patients do not need supportive care. This finding shows that as health care professionals, we need to pay more attention to the physical needs of patients with breast cancer. The right intervention and a large number of respondents is needed to understand and solve their problems. A qualitative approach also needs to give more information about the supportive care needs of breast cancer patients.

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CONFLICTS OF INTEREST

There is no conflict of interest from this research.

References

1. Nurhayati, Zaenal A, Handono. Analisis Faktor-Faktor Yang Berhubungan Dengan Kejadian Kanker Payudara. *Holistik Jurnal Kesehatan*. 2019;3(2):175–85.
2. Satriyo A, Mutmainnah E, Dewayani M, Dewi DS. Metastasis Kulit Tipe Karsinoma Erisipeloides Pada Pasien Dengan Riwayat Kanker Payudara. *Media Dermato Venereologica Indonesiana*. 2018;45(1).
3. Rizka A, Akbar MK, Putri NA. Carcinoma Mammae Sinistra T4bN2M1 Metastasis Pleura. *Jurnal Kedokteran dan Kesehatan Malikussaleh*. 2022;8(1):23–31.
4. Malik MuhZ, Kadar K, Petellongi I. Compliance Level of Supportive Care Needs Among Breast Cancer Survivor at Ibnu Sina Hospital Makassar. *Indonesian Contemporary nursing journal (ICON journal)*. 2017 Feb 1;1.

5. Saeedi NR, Sharbaf HA, Ebrahimabad MJA, Kareshki H. Psychological consequences of breast cancer in Iran: A meta-analysis. *Iran J Public Health*. 2019;48(5):816–24.
6. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. *CA Cancer J Clin*. 2021 May 4;71(3):209–49.
7. World Health Organization. Breast cancer . World Health Organization . 2024.
8. Kementrian Kesehatan Republik Indonesia. Benarkah kanker payudara mejadi kasus kanker terbanyak di Indonesia? [Internet]. 2022 [cited 2023 Feb 25]. Available from: https://yankes.kemkes.go.id/view_artikel/1415/benarkah-kanker-payudara-menjadi-kasus-kanker-terbanyak-di-indonesia
9. Kementrian Kesehatan Republik Indonesia. Terapi primer, terapi komplementer dan terapi alternatif pada kanker, apa bedanya? [Internet]. 2022 [cited 2023 Feb 25]. Available from: https://yankes.kemkes.go.id/view_artikel/865/terapi-primer-terapi-komplementer-terapi-alternatif-pada-kanker-apa-bedanya
10. Cencers for Disease Control and Prevention. Side effect of cancer treatment. [Internet]. 2022 [cited 2023 Feb 25]. Available from: <https://www.cdc.gov/cancer/survivors/patients/side-effects-of-treatment.htm>
11. Hermono T, Maria L, Hariyanti TB. Hubungan Dukungan Keluarga dengan Tingkat Kecemasan pada Anak Penderita Kanker yang Menjalani Kemoterapi di IRNA 4 RSUD Dr. Saiful Anwar Malang. *Scientific Journal of Nursing*. 2022;8(2):271–282.
12. Kementrian Kesehatan Republik Indonesia. Terapi Primer, terapi komplementer, terapi alternatif pada kanker, apa bedanya? . Kementrian Kesehatan Republik Indonesia . 2022.
13. Edib Z, Kumarasamy V, binti Abdullah N, Rizal AM, Al-Dubai SAR. Most prevalent unmet supportive care needs and quality of life of breast cancer patients in a tertiary hospital in Malaysia. *Health Qual Life Outcomes*. 2016;14(1):1–10.
14. Nimekari MM, Naz MSG, Taziani YA, Nasiri M, Evazi MR, Shafizad A, et al. Correlation between supportive care needs of women with breast cancer and quality of life of their family caregivers. *Int J Community Based Nurs Midwifery*. 2019;7(4):300–8.
15. Lam WWT, Tsang J, Yeo W, Suen J, Ho WM, Yau TK, et al. The evolution of supportive care needs trajectories in women with advanced breast cancer during the 12 months following diagnosis. *Support Care Cancer*. 2014;22(3):635–644.
16. Galvez-Hernandez CL, Boyes A, Ortega-Mondragon A, Romo-Gonzalez AG, Mohar A, Mesa-Chavez F, et al. Unmet Needs Among Breast Cancer Patients in a Developing Country and Supportive Care Needs Survey Validation. *Revista de investigacion Clinica*. 2021;73(4):24–250.
17. Khajoei R, Ilkhani M, Azadeh P, Zohari Anboohi S, Heshmati Nabavi F. Breast cancer survivors-supportive care needs: Systematic review. *BMJ Support Palliat Care*. 2023;13(2):143–53.
18. Wabula I, Yunitasari E, Wahyudi AS. Supportive Care Needs of Women with Breast Cancer: A Systematic Review. *Jurnal Ners*. 2020;15(2 Special Issue):142–8.
19. Lyu MM, Siah RCJ, Zhao J, Karis Kin Fong Cheng. Supportive care needs of breast cancer survivors with different levels of fear of cancer recurrence: A cross-sectional survey study. *European Journal of Oncology Nursing*. 2023;66.
20. REFAEE SAEEDI N, Aghamohammadian Sharbaf H, Asghari Ebrahimabad Mj, Kareshki H. Psychological Consequences of Breast Cancer in Iran: A Meta-Analysis. *Iran J Public Health*. 2019 Nov 24;
21. Boyes A, Girgis A, Lecathelinais C. Brief assessment of adult cancer patients' perceived needs: development and validation of the 34-item Supportive Care Needs Survey (SCNS-SF34). *J Eval Clin Pract*. 2009 Aug 23;15(4):602–6.
22. NHS. Enhanced supportive care: integrating supportive care in oncology (Phase I: Treatment with palliative intent. 2016;
23. Chua GP, Tan HK. A qualitative approach in determining the patient-centered information and supportive care needs of cancer patients in Singapore. *BMJ Open*. 2020 Feb 28;10(2):e034178.

24. Ahmedzai SH, Baldwin DR, Currow DC. Supportive Care in Respiratory Disease. 2nd ed. Vol. 1. London ; 2012.
25. McElduff P, Boyes A, Zucca A, Afaf G. Supportive Care Needs Survey: A guide to administration, scoring and analysis. Cancer Council New South Wales . 2004.
26. Schnabel A, Lordick F, Oberth P, Neuschulz M, Lehmann-Lae A, Mehnert-Theuerkauf A, et al. Supportive care needs and health-related quality of life in cancer patients receiving palliative care. *Front Psychol*. 2023 May 26;14.
27. Amane HY, Tessema AM, Seid KA, Hassen AM, Assen HE, Asfaw Z begaz, et al. Factors Associated with Unmet Supportive Care Needs of Oncology Patients at Dessie Referral Hospital, 2020. *Ecancermedicalscience*. 2021;5(15).
28. Negussie F, Giru BW, Yusuf NT, Gela D. Psychological distress and associated factors among cancer patients in public hospitals, Addis Ababa, Ethiopia: a cross-sectional study. *BMC Psychol*. 2023 Feb 10;11(1):41.
29. Hassan A, Saleem AN, Eziada SJ, Bashir A, Gameil A, Elmalik H, et al. The Prevalence of Psychosocial Distress among Cancer Patients: A Single Institution Experience at the State of Qatar. *British Journal of Cancer Research*. 2021;4:(2).
30. Sari DK, Dewi R, Daulay W. Association Between Family Support, Coping Strategies and Anxiety in Cancer Patients Undergoing Chemotherapy at General Hospital in Medan, North Sumatera, Indonesia. *Asian Pacific Journal of Cancer Prevention*. 2019 Oct 1;20(10):3015–9.
31. Fong EJ, Cheah WL. Unmet Supportive Care Needs among Breast Cancer Survivors of Community-Based Support Group in Kuching, Sarawak. *Int J Breast Cancer*. 2016;
32. Haris I, Hutajulu SH, Astari YK, Wiranata JA, Widodo I, Kurnianda J, et al. Sexual Dysfunction Following Breast Cancer Chemotherapy: A Cross-Sectional Study in Yogyakarta, Indonesia. *Cureus*. 2023 Jul 11;
33. Afyanti, Y., Gayatri, D., Besral. H. Unmet supportive care needs of Indonesian gynecological cancer survivors. *Enferm Clin*. 2019;25(2):869–73.
34. Beaver K, Williamson S BJ. Exploring patient experiences of neo-adjuvant chemotherapy for breast cancer. *Eur J Oncol Nurs*. 2016;20:77–86.
35. A'la, M, Z., Nuntaboot T. Exploring the supportive care needs for people with cancer undergoing chemotherapy: a qualitative descriptive study. 2023;18(1):31–9.