



Continuity of Care and Unmet Supportive Needs Among Women Living with Cancer: A Patient-Centered Perspective

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Abstract

Introduction. Continuity of care is a critical element in enhancing the quality of cancer management, particularly for women who frequently encounter fragmented care and numerous unmet supportive care needs throughout their cancer trajectory. Understanding the extent of patients' supportive care requirements and their perceptions of continuity of care is essential for improving patient-centered oncology services.

Aim. This study aimed to explore women's perceptions of continuity of care and to identify their unmet supportive care requirements throughout various stages of the cancer care continuum.

Methods. A descriptive cross-sectional study was conducted among 134 women with cancer at Jendral Ahmad Yani Metro Hospital, Lampung, Indonesia, from 15 July to 9 August 2025, using the Supportive Care Needs Survey-SF34 and the Patient Continuity of Care Questionnaire-12 to assess supportive care needs and continuity of care. All procedures received ethical approval, and informed consent was obtained from participants.

Result. The highest unmet supportive care needs were observed in the Health System and Information domain, particularly regarding inadequate written information (71.6%) and information on cancer status, including whether the disease was under control or in remission (67.2%). The Physical and Daily Living domain had the second-highest level of unmet needs, particularly for pain (79.9%) and fatigue

(79.1%). Psychological concerns were also frequently reported, including fear of metastasis (63.4%) and anxiety about the future (59.7%). The Patient Care and Support domains as well as Sexuality domains demonstrated lower, but still notable, unmet needs (38–45%). The mean total PCCQ-12 score was 43.93 (SD = 6.04), indicating moderate to good continuity of care, with the highest mean observed in the Management Continuity domain (15.65; SD = 2.27) and lower scores in informational and relational continuity domains.

Conclusion. Women with cancer experience substantial unmet supportive care needs alongside moderate continuity of care. Strengthening communication, coordination, and emotional support is essential to enhance patient-centered oncology nursing practice and improve care continuity across transitions.

Introduction

Cancer stands as one of the foremost factors influencing health challenges and loss of life worldwide, with a significant impact on women. As reported by the Global Burden of Cancer (Globocan) 2020, female breast cancer was the most commonly diagnosed cancer worldwide, accounting for 11.7% of all new cases, and it also ranked among the leading causes of cancer-related mortality in women. It is followed by lung (11.4%), colorectal (10.0%), stomach (5.6%), and other site-specific cancers (1). The World Health Organization (WHO) documented a total of 396,914 cancer cases in Indonesia. Breast cancer was the predominant proportion, accounting for 42.1% of cases. Cervical cancer was the second most common malignancy, with 36,633 cases (9.2%), while ovarian cancer ranked third among women in Indonesia, with 14,896 cases (1,2). The Indonesian Cancer Foundation in Lampung stated that 5,672 of the 8,117,000 population were diagnosed with cancer, with the biggest proportions of cases being breast, cervical, and ovarian cancer (3).

The effects of cancer and its treatments are deeply felt by individuals, highlighting the need for a holistic approach to care that goes beyond just medical treatment (4). This comprehensive viewpoint is es-

sential for women diagnosed with different cancers, due to their unique physiological and psychosocial challenges (5). Despite increasing acknowledgment of the significance of supportive care, a considerable burden of unmet needs continues to exist across multiple supportive care areas for numerous cancer patients throughout all stages of their illness (6). This unmet need frequently arises from inadequate care coordination and insufficient recognition of individual patient requirements within intricate healthcare systems (7). Therefore, understanding these unmet requirements from a patient-centered perspective is essential for developing tailored interventions and enhancing overall well-being (8).

Women with cancer experience a noticeable emotional and physical burden; nonetheless, information concerning their specific supportive care requirements and access to pertinent treatments is still restricted (9). Existing literature indicates that many women with cancer often report non-physical needs, such as anxiety about relapse or metastasis, more frequently than physical symptoms (10). Furthermore, this holistic assessment should also consider the profound impact of cancer on psychological well-being, including fears of recurrence, concerns for loved ones, and uncertainty about the future, which are frequently reported as high-priority unmet needs among cancer survivors (11). This highlights the importance of healthcare professionals evaluating these complex needs thoroughly, extending beyond the treatment of physical conditions (12).

Effective coordination of care and comprehensive survivorship services are essential for addressing the diverse needs of cancer survivors, especially women who may face specific challenges associated with their cancer type and treatment (13,14). A key element of comprehensive care is continuous follow-up support to manage late and long-term side effects, monitor for relapse, and address new or pre-existing comorbidities (15). Continuous Nursing Care is a comprehensive approach in which patients are actively involved in decision-making and in creating personalized nursing care plans that cater to their unique needs, from admission to discharge. The objective of ongoing nursing care is to enhance patients' quality of life, promote physical rehabilitation, and support them in optimizing their health status in accordance with their individual needs (16,17).

Continuous nursing care from hospitalization to post-discharge follow-up is beneficial for patients.

In Indonesia, only a limited number of hospitals have implemented follow-up procedures to assess patients' conditions after discharge. Evidence from other countries, including the United Kingdom, indicates that nurses who provide follow-up services after hospital discharge can enhance patients' quality of life and effectively manage their ongoing care needs at home (18,19). Malignancies significantly impact women, with over one million survivors in the United States. This number is projected to increase by 33% over the next decade, underscoring the need for coordinated, ongoing supportive care to address persistent symptoms and potential long-term complications (20). This continuity is crucial for optimizing patient satisfaction and health outcomes, particularly given the complex and often fragmented nature of post-treatment surveillance and long-term care. Without robust continuity, patients face increased risks of unmet needs, compromised care quality, and poorer psychosocial adjustment during a vulnerable period (12,14).

Aim

This study investigates patients' perceptions of continuity of care and identifies the types and extent of their supportive care needs, aiming to provide evidence to enhance patient-centered cancer care services.

Methods

Study design and participants

This research employed a descriptive cross-sectional design to examine patients' perceptions of continuity of care and to identify the types and extent of their supportive care needs. The study was conducted using a convenience sampling approach at Jendral Ahmad Yani Metro Hospital in Lampung, Indonesia, over

a four-week period from 15 July to 9 August 2025. Participants were eligible if they were women diagnosed with cancer, aged 18 years or older, currently receiving or having previously received cancer-related treatment at the hospital, able to communicate effectively, and willing to provide informed consent. Patients were excluded if they had severe cognitive impairment, were in critical clinical condition at the time of data collection, or submitted incomplete questionnaire responses.

The sample size was determined through an a priori power analysis using G*Power software (version 3.1.9.4). Assuming a medium effect size ($r = 0.30$), a two-tailed significance level of 0.05, and a statistical power of 0.95, the minimum required sample size was calculated to be 134 participants. Accordingly, 134 eligible individuals were recruited and included in the final analysis. The questionnaires were distributed by trained research assistants directly to the participants in their hospital rooms. Participants completed the questionnaires independently and returned them by placing the completed questionnaires into a closed collection box located at the nurse station. This procedure ensured the anonymity and confidentiality of responses, adhered to ethical standards, and complied with voluntary participation requirements.

Ethics

Participants engaged in a survey that ensured their anonymity. Before completing the survey, participants were informed about the research's purpose, and their involvement was entirely voluntary. The research protocol was reviewed and approved by the Ethics Committee of Jendral Ahmad Yani Hospital, Lampung, Indonesia, with approval number 370/634/KEPK-LE/LL-02/2025. All participants received comprehensive information about the study's objectives, methodologies, potential risks, and benefits. All participants provided written informed consent before data collection. Participation was completely voluntary, and respondents were assured they could withdraw at any time without repercussions regarding their medical treatment or nursing care.

Instruments

Supportive care needs were assessed using the Supportive Care Needs Survey Short Form (SCNS-SF34). The SCNS-SF34 is a validated 34-item question-

naire comprising five domains: physical and daily living, psychological, patient care and support, health system and information, and sexuality. Each item is rated on a five-point Likert scale ranging from 1 (not applicable) to 5 (high need). In this study, responses scored as 1 (not applicable) or 2 (satisfied) were categorized as indicating no unmet supportive care need. In contrast, responses scored 3 (low need), 4 (moderate need), or 5 (high need) were classified as indicating unmet supportive care needs, reflecting additional support that was not adequately addressed.

The SCNS-SF34 consists of 34 items divided into five domains: Psychological Needs (10 items), Health System and Information Needs (11 items), Patient Care and Support Needs (5 items), Physical and Daily Living Needs (5 items), and Sexuality Needs (3 items). Scores were calculated using a Likert summated scale by summing individual item scores within each domain, in accordance with the SCNS scoring guidelines. The resulting scores were analyzed either as crude totals or converted into standardized scores to enable comparison across scales with different numbers of items. Standardized scores were calculated using the formula:

$$\left(\sum \text{item scores} - m \right) \times 100 / [m \times (k - 1)]$$

where m represents the number of items in the domain and k represents the maximum response value for each item. This scoring approach follows the recommendations outlined in the Supportive Care Needs Survey: A Guide to Administration, Scoring and Analysis (21). The SCNS-SF34 had a validity score of 0.302-0.792 and the reliability 0.933 (9).

The Patient Continuity of Care Questionnaire short version (PCCQ-12) was utilized to assess patients' perceptions of continuity of care. The PCCQ-12 consists of three domains: informational continuity (4 items), management continuity (4 items), and relational continuity (4 items). Each item has five response options ranging from strongly disagree to strongly agree, scored from 1 to 5, with higher scores indicating better continuity of care. All items also include a "not applicable" option, which is treated as a missing response and excluded from scoring. For each domain, the domain score is calculated by summing the scores of its constituent items, using only responses scored 1-5. The domain score therefore ranges from 4 to 20 for each domain. The total PC-

CQ-12 score is the sum of all 12 items, with a potential range from 12 to 60, where higher scores reflect better overall continuity of care (22). The PCCQ-12 were translated from English to Bahasa Indonesia by an academic language center, followed by a review conducted by an expert panel. The PCCQ-12 underwent piloting for validity and reliability testing, yielding validity scores ranging from 0.512 to 0.828 and a reliability score of 0.887.

Statistics

Descriptive statistics were used to summarize patients' demographic characteristics, perceptions of continuity of care, and supportive care needs. The normality of continuous variables was assessed using the Kolmogorov-Smirnov test, which indicated that both perceptions of continuity of care and supportive care needs were normally distributed, justifying the use of parametric statistical analyses. All statistical analyses were performed using Statistical Package for Social Sciences (SPSS version 26.0, IBM Corp.).

Results

The sociodemographic characteristics of women with cancer included in the study are presented in Table 1.

Table 1 findings indicated that the majority of respondents belonged to the middle adulthood group (43.3%), with educational backgrounds primarily at the lower and upper secondary education levels. A significant proportion of respondents were unemployed (65.7%) and had incomes below the minimum wage (76.9%), reflecting constrained socioeconomic conditions. Breast cancer was the most prevalent type reported, accounting for 79.9%, whereas other cancers, including colon cancer, rectal cancer, and multiple myeloma, were identified in a minor percentage of respondents. A significant majority of patients (48.5%) were diagnosed at advanced stage (III), indicating a low rate of early detection. The predominant ethnicity among respondents was Javanese, comprising 79.1% of the sample. The predominant treatment duration ranged from 1 to 6 months, accounting for

Table 1. The sociodemographic characteristics of women with cancer

	Characteristics	Frequency	%
Age	Young adulthood (25 - 44 years)	51	38.1
	Middle adulthood (45 - 59 years)	58	43.3
	Elderly (60 - 75 years)	25	18.7
Educational qualifications	Primary education	31	23.1
	Lower secondary education	44	32.8
	Upper secondary education	43	32.1
	Higher education (Diploma/Bachelor's degree)	13	9.7
Occupation	Unemployed	88	65.7
	Employed	46	34.3
Income	Below the minimum wage	103	76.9
	At or above the minimum wage	31	23.1
Type of Cancer	Breast cancer	107	79.9
	Multiple myeloma	6	4.5
	Ovarian cancer	1	0.7
	Rectal cancer	6	4.5
	Hodgkin's lymphoma	2	1.5
	Lung cancer	1	0.7
	Colon cancer	9	6.7
	Adenocarcinoma	1	0.7
	Non-Hodgkin's lymphoma	1	0.7
Stage	Stage I	7	5.2
	Stage II	54	40.3
	Stage III	65	48.5
	Stage IV	8	6.0
Duration of Treatment	1 - 6 months	82	61.2
	>6 months - 1 year	50	37.3
	>1 year	2	1.5
Treatment	Chemotherapy	20	14.9
	Surgery and Chemotherapy	114	85.1
Ethnicity	Balinese	5	3.7
	Batak	1	0.8
	Javanese	106	79.1
	Lampungese	6	4.5
	Minangkabau	5	3.7
	Palembangese	2	1.5
	Sundanese	1	0.7
	Other/Not Reported	8	6.0

61.2% of cases, while the combination of surgery and chemotherapy was the most commonly utilized therapy, representing 85.1% of instances.

Tables 2 and 3 present the supportive care needs among women with cancer, with Table 2 showing the distribution of needs across domains and Table 3 highlighting the prevalence of moderate-to-high unmet needs in each domain.

Table 2. Supportive Care Needs variables among women with cancer		
Variables	Frequency	%
Supportive Care Needs		
No Need	16	11.9
Unmet Need	118	88.1
Physical and Daily Living Domain		
No Need	25	18.7
Unmet Need	109	81.3
Psychological Domain		
No Need	42	31.3
Unmet Need	92	68.7
Patient Care and Support Domain		
No Need	57	42.5
Unmet Need	77	57.5
Health System and Information Domain		
No Need	24	17.9
Unmet Need	110	82.1
Sexuality Domain		
No Need	80	59.7
Unmet Need	54	40.3

Table 2 and Table 3 present the distribution of unmet supportive care needs among cancer patients across five primary domains. Unmet supportive care needs were defined as item responses scored 3 (low need), 4 (moderate need), or 5 (high need) on the Supportive Care Needs Survey (SCNS). Scores of 1 (not applicable) and 2 (satisfied) indicate no unmet need. Domain-level unmet needs represent summary categories derived from item-level responses within each SCNS domain.

The findings indicate that the Health System and Information domain exhibited the highest proportion of unmet needs. Patients most frequently reported requiring adequate written information regarding illness management and treatment outcomes (71.6%),

as well as information on cancer status, including whether the disease was under control or in remission (67.2%).

The Physical and Daily Living domain had the second-highest level of unmet needs. Pain (79.9%) and fatigue/lack of energy (79.1%) were the predominant issues, suggesting that physical symptoms remain the most significant challenges in patients' daily lives. Psychological needs were also frequently reported, including feelings of sadness (61.2%), anxiety and concern about the future (59.7%), and fears of cancer spreading (63.4%), indicating that emotional distress among patients is substantial and often insufficiently addressed. The Patient Care and Support domain and Sexuality domain showed lower, yet meaningful levels of unmet needs, with approximately 38-45% of patients reporting challenges related to changes in sexual feelings, interpersonal relationships, and insufficient information regarding sexuality.

Table 4 presents the results of the Patient Continuity of Care Questionnaire short version (PCCQ-12), including mean scores for each domain and the overall total score.

The mean scores for the Patient Continuity of Care Questionnaire short version (PCCQ-12) are displayed in Table 4, including three domains and the overall patient perception score. The results suggest that patients experienced moderate to good continuity of care. The Informational Continuity domain recorded a mean score of 14.15 (SD = 2.623), where the item with the highest score pertained to comprehensive information on medications, while the item with the lowest score was associated with clarity of prognosis. The Management Continuity domain exhibited the highest overall mean (15.65; SD = 2.265), indicating effective coordination and follow-up arrangements post-discharge, although the consistency of information among providers was relatively lower. The Relational Continuity domain yielded a mean score of 14.12 (SD = 2.271), suggesting that patients perceived themselves as sufficiently prepared for discharge, yet reported a lack of familiarity with providers post-discharge. The total score reflecting patients' perceptions of continuity of care was 43.93 (SD = 6.038), with a range of 31-60. Higher scores indicate better perceived continuity of care. Clinically, this suggests that the participants experienced moderate to good continuity of care.

Table 3. Prevalence of unmet supportive care needs among women with cancer

Unmet Supportive Care Needs	Frequency	%
Physical and Daily Living Domain		
Pain	107	79.9
Lack of energy/tiredness	106	79.1
Feeling unwell a lot of the time	80	59.7
Work around the home	91	67.9
Not being able to do the things you used to do	94	70.1
Psychological Domain		
Anxiety	80	59.7
Feeling down or depressed	73	54.5
Feelings of sadness	82	61.2
Fears about the cancer spreading	85	63.4
Worry that the results of treatment are beyond your control	79	59.0
Uncertainty about the future	80	59.7
Learning to feel in control of your situation	74	55.2
Keeping a positive outlook	50	37.3
Feelings about death and dying	56	41.8
Concerns about the worries of those close to you	52	38.8
Patient Care and Support Domain		
More choice about which cancer specialists you see	37	27.6
More choice about which hospital you attend	21	15.7
Reassurance by medical staff that the way you feel is normal	61	45.5
Hospital staff attending promptly to your physical needs	42	31.3
Hospital staff acknowledging, and showing sensitivity to your feelings and emotional needs	61	45.5
Health System and Information Domain		
Being given written information about the important aspects of your care	46	34.3
Being given information (written, diagrams, drawings) about aspects of managing your illness and side-effects at home	96	71.6
Being given explanations of those tests for which you would like explanations	52	38.8
Being adequately informed about the benefits and side-effects of treatments before you choose to have them	39	29.1
Being informed about your test results as soon as feasible	72	53.7
Being informed about cancer which is under control or diminishing in remission)	90	67.2
Being informed about things you can do to help yourself get well	61	45.5
Having access to professional counselling (e.g., psychologist, social worker, counsellor, nurse specialist) if you, your family or friends need it	42	31.3
Being treated like a person not just another case	18	13.4
Being treated in a hospital or clinic that is as physically pleasant as possible	30	22.4
Having one member of hospital staff with whom you can talk to about all aspects of your condition, treatment and follow-up	59	44.0
Sexuality Domain		
Changes in sexual feelings	52	38.8
Changes in your sexual relationships	51	38.1
To be given information about sexual relationships	53	39.6

Table 4. The Patient Continuity of Care Questionnaire short version (PCCQ-12)

Variables	Mean (SD)	Median	Mode	Min-Max
Patients' perceptions of continuity of care	43.93 (6.038)	44.00	48	31-60
Informational	14.15 (2.623)	14.00	16	8-20
I was provided with clear information on my diagnosis.	4.00 (0.704)	4.00	4	1-5
I was provided with clear information on my prognosis.	2.94 (1.249)	3.00	4	1-5
I was given information on symptoms that may signal a need to seek urgent medical attention and whom to contact for these symptoms (e.g., specialist, family physician, homecare).	2.96 (1.204)	3.00	4	1-5
I was given complete information on my medications (e.g., type, purpose, method of administration, timing, duration, dosage, side effects, drug interactions, and required blood work).	4.25 (0.677)	4.00	4	2-5
Management	15.65 (2.265)	16.00	16	9-20
I was given information on follow-up appointments that have been made for me and appointments I have to schedule for myself.	4.43 (0.606)	4.00	5	2-5
I was informed of ongoing treatment that may be required after discharge (e.g., purpose, how, when) and whether I will have ongoing contact with providers of my care (e.g., physician, etc.).	3.84 (0.900)	4.00	4	1-5
A well developed and realistic follow-up plan was prepared and explained to me.	3.84 (0.777)	4.00	4	1-5
I was given consistent information by all providers about my care.	3.54 (0.690)	3.50	3	2-5
Relational	14.12 (2.271)	14.00	16	10-20
I felt "known" by the providers involved in my care (e.g., they were aware of my current clinical condition and recent events).	3.69 (0.750)	4.00	4	2-5
I felt adequately prepared for discharge.	3.72 (0.633)	4.00	4	2-5
I feel "known" (e.g., current health condition) by my present providers who have taken over my care since discharge.	3.34 (0.796)	3.00	4	1-5
I have confidence in my providers who have taken over my care since discharge.	3.37 (0.712)	3.00	3	2-5

Discussion

Supportive care needs encompass the requirements for managing symptoms and treatment-related side effects, enhancing adaptive and coping abilities, optimising understanding and access to information for informed decision-making, and minimising impairments in physical functioning (23). Consistent with this framework, the findings of the present study demonstrate that women with cancer reported the highest unmet supportive care needs in the Health System and Information domain, followed by the Physical and Daily Living domain, with considerable unmet needs also evident in the Psychological domain. This distribution indicates that gaps in in-

formation provision and communication within the healthcare system may undermine patients' capacity to manage physical symptoms, adapt psychologically, and maintain daily functioning. Adequate, timely, and comprehensible information is therefore fundamental to strengthening patients' self-efficacy, supporting effective coping strategies, and promoting active engagement in self-care. In this context, nurses play a central role in identifying unmet supportive care needs and delivering person-centred education and support tailored to patients' informational, physical, and psychological concerns.

Supportive care requirements are categorised into five domains: physical, psychological, patient care and support, health system and information, and sexual-ity. This study found that 88.1% of cancer patients

required supportive care. In the physical domain, 81.3% of cancer patients indicated a requirement for supportive care, whereas in the health system and information domain, 82.1% reported comparable needs. These results highlight that, although cancer care often emphasizes physical treatment, patients continue to experience significant unmet supportive care needs, particularly in the physical, emotional, and informational domains. Overall, the findings emphasize the necessity of a comprehensive, patient-centered approach to oncology nursing that addresses not only physical treatment but also emotional, informational, and psychosocial aspects of care to meet patients' supportive care needs adequately.

This finding is consistent with the study by Effendy et al., which reported a wide range of unmet physical symptom needs among patients with advanced cancer. Specifically, unmet needs were reported for pain (66.4%), fatigue (60.0%), sleeping problems (65.6%), shortness of breath (67.3%), cough (63.2%), itch (61.7%), numbness (54.1%), and night sweats (76.2%). The higher proportions observed in the present study, particularly for pain and lack of energy, may be partly explained by differences in study populations. Effendy et al. included only patients with advanced-stage cancer, who often experience more complex and fluctuating symptom patterns and may receive more intensive palliative-oriented care. In contrast, variations in disease stage and treatment trajectories in the present study may have contributed to differences in symptom burden and access to supportive care services. Price et al. conducted an investigation into physical symptoms in patients with ovarian cancer, identifying lack of energy, abdominal bloating, pain, and nausea as the most commonly reported symptoms. Key issues associated with cancer and its treatment include disruptions in physical condition, social functioning, and body image. Patients frequently encounter uncertainty about the significance of unexplained physical symptoms and the management of ongoing treatment effects during their care (24,25).

These findings highlight two interrelated challenges in cancer care: the burden of treatment-related physical symptoms and the persistent gap in patients' access to clear and reliable health information. Physical challenges such as fatigue and pain remain among the most prevalent adverse effects of cancer treatment, underscoring the need for effective symptom management strategies. Evidence suggests that im-

proved symptom control can substantially enhance patients' quality of life, as demonstrated by Li et al. (26). In parallel, unmet informational needs reflect an emerging "infodemic" in healthcare, in which patients may experience confusion or anxiety due to fragmented or inconsistent information. Holden et al. (2021) emphasized the critical role of health literacy and the responsibility of healthcare professionals to provide accurate and comprehensible information to mitigate patient distress (27). Collectively, these observations are consistent with previous studies highlighting that integrated attention to both physical and informational needs is essential for improving overall patient well-being.

Unmet psychological needs were reported by 68.7% of respondents. The diagnosis and treatment of cancer frequently induce anxiety, depression, and concerns regarding relapse. Cancer patients undergoing therapy encounter not only physical symptoms but also emotional alterations, including anxiety and depression, alongside concerns regarding a potential decline in their quality of life due to uncertainty about their prognosis. Cancer patients frequently present with multiple interrelated symptoms; for example, depression may correlate with fatigue. The interaction of concurrent symptoms may intensify existing symptoms or contribute to the emergence of new symptoms (28). Emotional well-being is the dimension most adversely impacted during chemotherapy. Cancer patients receiving treatment necessitate emotional support to manage anxiety, sadness, and fear during the diagnosis and treatment phases (29).

One of the most alarming discoveries in this study is that nearly 89% of respondents were diagnosed with breast cancer at advanced stages (II and III). This highlights a major challenge in the early detection process. According to Siegel et al. (2022), early detection remains the key to improving survival rates, even with advances in treatment options. Insufficiently organized and cost-effective screening initiatives, coupled with a general unawareness of the initial signs of cancer, are often associated with delayed diagnoses (30). Following established global clinical guidelines, the typical treatment strategy for stage II and III breast cancer involves a combination of chemotherapy and surgery, a choice favored by most patients.

The treatment typically lasts from one to six months, though this timeframe can vary. Papalexis et al. conducted a systematic review highlighting the impor-

tance of tailored therapy and the thorough management of side effects, especially for patients receiving long-term chemotherapy (31). The significant presence of respondents from the Javanese ethnic group likely reflects the study's geographical context; however, it is crucial to consider the influence of ethnicity and culture. Özdemir et al. (2017) illustrated that ethnic background and genetic lineage can influence particular cancer types and treatment responses. Cultural influences, such as the stigma associated with illness and reliance on traditional medicine, may prevent patients from seeking professional medical attention, resulting in diagnoses occurring at more advanced stages (32). Consequently, it is imperative for nurses to actively provide supportive care by facilitating effective communication with patients and disseminating vital care-related information to enhance the quality of life for cancer patients. Continuous Nursing Care is an extensive nursing care approach that engages patients in decision-making and the formulation of personalised care plans, extending from hospital admission to discharge and customised to each patient's distinct needs.

Continuity of care, which encompasses seamless coordination and effective transitions across healthcare services, is widely recognised as a key indicator of healthcare quality. In the context of cancer care, where management extends beyond curative treatment to include supportive, rehabilitative, and palliative services delivered by multidisciplinary teams, patients' favourable perceptions of continuity of care are associated with better perceived health status and overall well-being (16,17). The findings of the present study suggest that coordination and communication among healthcare providers were generally perceived as adequate; however, opportunities for improvement remain, particularly in informational and relational continuity. When patients perceive that their supportive care needs are adequately met, they are more likely to report a positive perception of continuity of care, highlighting the importance of integrated, patient-centred approaches to cancer care.

Cancer patients' needs encompass not only medical interventions like chemotherapy, surgery, or radiotherapy but also emotional, spiritual, and financial support. A favourable perception of care continuity enables patients to regard the treatment process as organised, consistent, and conducive to their overall well-being. Chen et al. (2019) conducted a study indicating that breast cancer survivors exhibiting a

high Continuity of Care Index (COCI), regardless of whether oncologists or primary care providers managed their care, were more inclined to participate in routine screenings (e.g., mammography/ultrasound), experienced reduced hospitalisation rates, and had fewer emergency department visits in comparison to those with low continuity of care (33).

This study highlights the critical role of uninterrupted continuity of care and the systematic identification of unmet supportive care needs as essential components of patient-centered cancer care. The findings emphasize the importance of strengthening inter-professional communication, improving the clarity and consistency of information provided to patients, and enhancing care coordination, particularly during transitions from hospital to home. Clinically, these results support the implementation of structured patient education programs, routine monitoring of supportive care needs, and targeted nursing interventions focused on informational and emotional support. Future research should employ longitudinal and interventional designs to further evaluate the effectiveness of continuity of care models and supportive care interventions across different stages of the cancer trajectory and healthcare settings.

Several limitations should be considered when interpreting these findings. The cross-sectional design does not allow causal inferences, and the use of convenience sampling within a single hospital setting may limit transferability to other contexts. In addition, reliance on self-reported data may introduce response bias. Furthermore, the Patient Continuity of Care Questionnaire (PCCQ-12) includes only positively phrased statements, which may have led to more favorable responses than participants actually experienced.

Conclusion

This study indicates that women living with cancer reported varying levels of continuity of care across informational, management, and relational domains. Management continuity showed higher scores than informational and relational continuity, while gaps were identified in the clarity of prognostic information and in patients' familiarity with healthcare providers after hospital discharge. In addition, substan-

tial unmet supportive care needs were identified, particularly in the physical and daily living domain, including pain and fatigue, as well as in the psychological domain, such as emotional distress, anxiety, and fear of disease progression. Moderate unmet needs were also reported in the areas of patient care, support, and health system information. Overall, these findings reflect key challenges in delivering patient-centered cancer care that adequately addresses both continuity of care and patients' multidimensional supportive care needs.

Declaration of Generative AI in Writing

During preparation, the author(s) used ChatGPT from OpenAI for language enhancement.

Author Contributions

Conceptualization (RHP, YE); Data Curation (RHP, YE); Methodology (RHP, AG); Data Analysis (RHP, AG); Writing - Original Draft (RHP, YE); Writing—review and editing (RHP, TAN). All authors have approved the final manuscript.

Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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