



## Systematic Review

**Supportive Care Needs of Women with Breast Cancer: A Systematic Review****Irfan Wabula, Esti Yunitasari, Andri Setiya Wahyudi**

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**ABSTRACT**

**Introduction:** An understanding of supportive care needs is essential to achieve good quality care for women with breast cancer. This concept defines the needs of cancer patients in relation to the physical, emotional, psychological, social, informational and spiritual domains since the start of their journey through diagnosis, treatment, survivorship, palliative care and the grief process.

**Methods:** This study was conducted to explore the unmet supportive care needs of women with breast cancer. Databases were searched in the journals using pre-determined keywords such as 'supportive care needs', 'breast cancer' and 'woman'. The databases used were Scopus, Pro Quest, Science Direct and EBSCO. The search was limited to journals published in the period 2014-2020. Out of the 189 nursing journals initially found, 16 journals were selected that met all of the eligibility criteria. Eight studies used a cross-sectional design.

**Results:** Most of the breast cancer patients were in the post-diagnosis phase and had survived. More than 50% of the journals reported that the needs of breast cancer women were going unmet. The predictors of a higher level of need among the breast cancer patients are age, social support and information. The most prevalent unmet needs among the women with breast cancer were found to be in the health system and related to information. The women with breast cancer who had more unmet needs in the physical and psychological domains were more likely to have a poor quality of life.

**Conclusion:** Future research should focus on improving the education and psychological support programs available to provide for the unmet supportive care needs of patients newly-diagnosed with breast cancer. This can provide high quality care for them.

**ARTICLE HISTORY**

Received: Feb 27, 2020

Accepted: April 1, 2020

**KEYWORDS**supportive care needs; breast cancer;  
woman**CONTACT**

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**Cite this as:** Wabula, I., Yunitasari, E., & Wahyudi, A. S. (2020). Supportive Care Needs of Women with Breast Cancer: A Systematic Review. *Jurnal Ners, Special Issues*, 142-148. doi:<http://dx.doi.org/10.20473/jn.v15i2.18999>

**INTRODUCTION**

Breast cancer is the most common cancer and it is the leading cause of cancer death among women globally (Lam et al., 2014). The incidence rate ranges from 21.6 per 100,000 women in China to 109.2 per 100,000 in Belgium. It has been estimated that about 1.4 million cases are newly diagnosed globally each year (So et al., 2014). Breast cancer survivors constitute 22% of the estimated 14.5 million cancer survivors. This is a population that is expected to grow to 18 million over the next decade (Davis, Nyamathi, Abuatiq, Fike, & Wilson, 2018). The 5-year survival rate in the West is 70-90%, 57% in

developing countries and globally 61%. In Malaysia, the 5-year survival rate for breast cancer is 49% with a median interval of 68.1 months that is continuing to escalate every year (Edib, Kumarasamy, binti Abdullah, Rizal, & Al-Dubai, 2016). Needs emerge when problems are perceived to exceed the person's capacity to deal with them, requiring external assistance or resources to achieve or maintain well-being (Lam et al., 2014). This growing population represents the increased need for survivorship research that focuses on evidence-based, high-quality and patient centered supportive care (Davis et al., 2018).

Supportive care is defined as rendering essential services that satisfy the cancer patients' physical, psychological, social, informational and spiritual needs over the entire illness trajectory. Although it is acknowledged as an essential service, 1-93% of cancer patients' supportive needs have been consistently unmet (Edib et al., 2016). The goal of supportive care is to improve the QOL of patients with a serious or life-threatening disease by treating the symptoms and side effects caused by the illness and its treatment (So et al., 2014). Studies have reported that the prevalence of unmet SCNs among cancer survivors varies from 30-50%. However, most of them focus on the needs of cancer patients in the diagnosis and treatment phase. Studies that have examined their needs immediately after treatment are lacking. To date, we do not have a precise or overall picture of what help women actually need or what they expect to manage the symptoms and problems that they face (Han, Kim, Yoon, & Kim, 2019).

The symptom experience and supportive care needs of breast cancer survivors is heterogeneous across the survivorship journey (Cheng, Darshini Devi, Wong, & Koh, 2014). Unmet supportive needs related to physical and daily living, patient care and support and sexuality have also been reported but less frequently (Abdollahzadeh et al., 2014). Studies have been reported that breast cancer women who report the same symptoms may express a different level of need for help (Torres, Dixon, & Richman, 2015). Most cancer need assessment studies have examined the needs of mixed cancer populations including all stages at various times following diagnosis. The majority of these are cross-sectional in design, although there are a few descriptive-correlational studies [9]; [7]; [13], retrospective studies [11], quasi-experimental designs (Davis et al., 2018), and qualitative studies [8]. These studies also vary in their examination of other crucial factors such as QOL and perceived symptoms. This discordance may be due to the disease factors, socio-demographic factors, faith, supportive structures, optimism and access to information (Davis et al., 2018). Identifying the patient-centered supportive care factors can facilitate a discussion among the patients, their family members and the oncology team members to determine what helps the patients best as they navigate the survivorship trajectory (Davis et al., 2018).

Supportive care needs are a culture-dependent concept. Therefore in order to develop an effective supportive care program, cultural issues must be considered (Rahmani et al., 2014). In this review, we concentrated on the studies that examine the supportive care needs specific to women who have been diagnosed with breast cancer. This review attempts to answer the following question: 'What are the domains and specific items of need most frequently reported as going unmet by breast cancer patients?' The goal of this study was to summarize

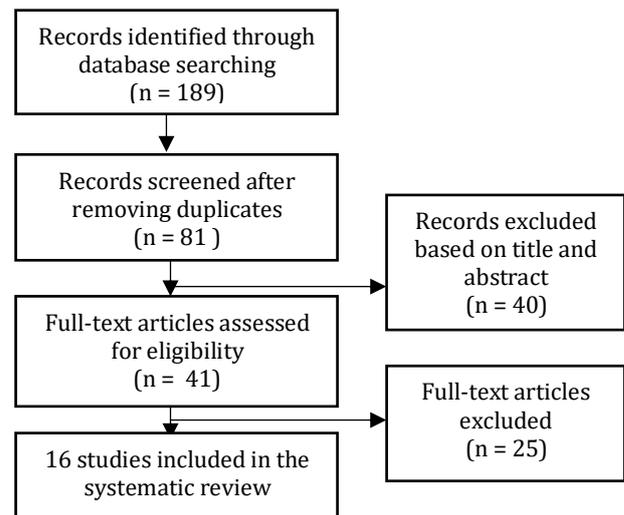


Figure 1. Diagram summarizing the literature search

what the associations are, if any, between the unmet need factors of breast cancer patients.

## MATERIALS AND METHODS

### Strategy Strategy

A systematic search of the following databases was conducted: Scopus, ProQuest, ScienceDirect and EBSCO. Papers published in the period 2014-2020 assessing the supportive care needs of breast cancer patients were identified by entering key words in combination: supportive care needs, breast cancer and woman. They generally used the validated need assessment instrument, the Supportive Care Needs Survey (SCNS). The reference lists of the major articles on the subject were examined for any additional titles. The search returned a total of 189 nursing journals.

### Inclusion and Exclusion Criteria

All stages of breast cancer including advanced and recurring disease at any point along the cancer trajectory (post-diagnosis, in treatment and post-treatment) were included. The participants of the studies were adult breast cancer patients. Quantitative studies employing validated needs assessment instruments focusing uniquely on supportive care needs of women with breast cancer were chosen for review. The papers were only considered if they were in English. We excluded studies reporting data on the participants who were pre-diagnosis and/or of a mixed cancer type except if they reported data for breast cancer separately. This was in addition to health care provider training studies and studies only looking at the needs of the BC patients' partners.

### Selection of the Articles

We extracted the prevalence of the needs in order to present the most commonly fulfilled and unmet needs both. The database search returned 189 hits. After

Table 2. Summary of the selected studies

Author	Design	Sample	Supportive Care Need Measure	Result
(Rahmani et al., 2014)	Descriptive-correlational study	274 cancer patients	Supportive Care Needs Survey (SCNS-59)	More than 50% of the participants reported that their needs were unmet. Most frequently, the unmet needs were related to the health system, information, physical and daily living domains. Most of the met needs were related to the sexuality, patient care and support domains.
(Abdollahzadeh et al., 2014)	Descriptive-correlational study	136 breast cancer patients.	Supportive Care Needs Survey (SCNS-SF34)	The patient's perceived needs were the highest in the health systems and information (71%) and physical and daily living (68%) domains. The younger participants had more un-met needs in all domains and those with more children reported fewer un-met needs in the patient care and support domains. In addition, married women had more un-met supportive care needs related to sexuality.
(Edib et al., 2016)	Cross-sectional study	117 breast cancer patients.	SCNS-SF34 and EORTC QLQ-C30	The highest unmet supportive care needs were observed in the psychological domain, followed by the physical domain. The most prevalent unmet supportive care needs were uncertainty about the future, fear of the cancer spreading, feelings of sadness, feelings about death and dying, concerns about those close to the patient and feeling down or depressed.
(Faghani et al., 2015)	Descriptive-correlational study	30 cancer survivors.	SCNS-SF34 and MSPSS	The participants demonstrated many unmet supportive care needs, especially in the health system and information and psychological domains. Social support has a significant correlation with all of the domains of the supportive care needs.
(Davis et al., 2018)	Cross-sectional study	155 African-American adult women diagnosed with breast cancer.	Open-ended questions	Four supportive care factors were identified: faith, supportive structures, optimism and access to information
(Mohammadzadeh Nimekari et al., 2019)	Cross-sectional study	150 breast cancer patients and 150 of their primary family caregivers.	SCNS-SF34 and the Caregiver Quality of Life Index-Cancer Scale.	The results of the study showed that physical needs were the most common supportive care needs of patients with breast cancer. Such needs also significantly undermined the QoL of the caregivers in terms of emotional burden and financial concerns.
(Dine, 2017)	Cross-sectional study	236 breast, gynecological, colorectal, lung, head and neck cancer survivors.	The Cancer Survivors' Unmet Need Measure (CaSUN) and a single-item measure from the global QoL scale.	Cancer survivors generally perceived themselves as having a good QoL, although there was a significantly low QoL for the lung cancer survivors. This study mapped the unmet supportive care needs of Thai cancer patients and the results showed that patients with head and neck cancer and lung cancer were strongly affected.

(So et al., 2014)	Cross-sectional study	163 breast cancer survivors.	Chinese version of Supportive Care Needs Survey form (SCNS-SF34).	The 5 most commonly reported unmet needs were all in the health system information domain. The majority reported at least 1 unmet need in relation to information on healthcare. The time spent travelling from home to the hospital, receiving hormonal therapy and physical and psychological unmet needs were independently associated with a poorer quality of life among the participants.
(Liao et al., 2014)	Quasi-experimental design	80 women newly diagnosed with breast cancer.	Chinese version of the Supportive Care Needs Survey form (SCNS-SF34).	The education and psychological support components of our intervention program effectively improved the unmet supportive care needs of the patients newly diagnosed with breast cancer 3 months after surgery.
(Cheng et al., 2014)	Cross-sectional study	150 breast cancer survivors.	Supportive Care Needs Survey Short Form (SCNS-SF34).	88% of the survivors reported having at least 1 symptom while 51% reported at least 1 unmet need. Lack of energy was the most prevalent symptom (47%), followed by numbness/tingling in the hands/feet (41%). Most of the survivors had unmet needs in the health care system/information domain (37% reported at least 1 unmet need for help), followed by psychological needs (29%).
(Torres et al., 2015)	Qualitative study	32 African-American women with breast cancer.	Paper survey and in-depth focus group interviews.	Faith in God was an important coping mechanism essential to all women in the study and it was a critical facilitator of survivorship. Their support networks consisted of their family, church family, friends and co-workers. The concept of fear included the discovery of breast cancer and their fear of death, the negative side effects of treatment and the social stigma of having breast cancer.
(Molassiotis et al., 2017)	Cross-sectional study	1873 cancer survivors.	Cancer Survivors Unmet Needs scale and a single-item measure of global QoL perception.	The most frequently reported symptoms were fatigue (66.6%), a loss of strength (61.8%), pain (61.6%), sleep disturbance (60.1%) and weight changes (57.7%). Unmet needs to a moderate/strong level were high, particularly in the area of existential survivorship (psychosocial care) and receiving comprehensive cancer care.
(Lam et al., 2014)	Longitudinal study	228 Chinese women with advanced breast cancer	SCNS-34-Ch, the Hospital Anxiety and Depression scale, MSAS-Ch and PSEQ-9.	Two distinct trajectories were identified for the HSIPS and sexuality need domains. There were 3 distinct trajectories for the psychological and physical daily living need domains. Most women showed stable low levels of HSIPS (78.9%), psychological (82.4%), PDL (83.7%) and sexuality (97.4%) supportive care needs. One in 5 and 1 in 8 women showed high initial supportive care needs in the HSIPS, psychological and PDL domains, respectively. With the exception of sexuality needs, the trajectory patterns were predicted by the distress related to their physical symptoms. Women in the high decline group reported greater physical symptom distress.

(Aunan et al., 2019)	Qualitative, descriptive design	20 BC survivors after having participated in the BCS	In-depth interviews and the COREQ checklist.	The study reveals the need for information tailored to each BC survivor's unique needs. The BC survivors expressed both the need for and fear of information. BCS takes both a systematic and individual approach to provide expert information, dialog and the opportunity to meet with fellow patients.
(Han et al., 2019)	Cross-sectional study	146 patients who had undergone surgery and treatment for breast cancer	Survey-Short Form Questionnaire (SCNS-SF34).	Back-to-work breast cancer survivors show higher physical and mental health indices which reflect their quality of life where they have fewer physical supportive care needs. Additionally, their physical and mental health indices based on the characteristics of the illness differed according to the cancer stage.
(Chou et al., 2020)	Retrospective study	1129 BC patients	The unmet needs of patients with BC questionnaire that were divided into six domains, namely health information, patient care, treatment, nutrition, psychosocial and economic needs.	The unmet needs of patients with cancer differ according to their age, cancer stage and treatment phase. Appropriate and punctual tailored support provided by the medical care personnel to address the unmet needs of patients can reduce the unmet supportive care needs of such patients and improve the quality of the medical care services that they are provided with. Ultimately, the overall quality of life of the patients can be improved.

exclusion of an additional 40. The remaining 41 were read in their entirety and an additional 25 were rejected. Sixteen met all of the criteria and have been reviewed in this paper. All of the titles and abstracts were inspected for relevance. The categories used in the abstract tool included the demographics and populations studied and the supportive care needs (measured; not only fulfilled but also unmet).

## RESULTS

The sample size regarding the breast cancer patients ranged from 51 to 1084. Several different cultures and countries are represented. Nearly half were Asian including Taiwan, Singapore, China, Malaysia, Thailand and Korea. Others included Iran, Norway, Australia and African-American. Eight studies concentrated on the post-treatment phase and the 8 other studies concentrated on the treatment phase. One of the studies recruited patients diagnosed of different cancer types. The studies vary in terms of the elapsed time since diagnosis, ranging from the newly-diagnosed to those who were a survivor. The participant's age in all of the studies was reported to be between 18 and 65 years old.

The instruments of choice for these studies include the SCNS, either short form 34 or version 59 (Rahmani et al., 2014), the Cancer Survivors' Unmet Need Measure (CaSUN) (Dine, 2017), the other version of SCNS-SF34 (Lam et al., 2014);(So et al., 2014) and the unmet needs of patients with BC questionnaire paired with in-depth interviews (Torres et al., 2015);(Chou, Chia-Rong Hsieh, Chen, Huang, & Shieh, 2020);(Davis et al., 2018); (Aunan, Wallgren, & Sætre Hansen, 2019). The most commonly used version, the SCNS-SF34, is comprised of 5 domains: psychological, health system and

information, physical and daily living, patient care and support and sexuality. The scoring and reporting of supportive care needs varied between the studies. The other instruments employed were EORTC QLQ-C30, MSPSS, the Quality of Life Index-Cancer Scale, Ch, the Hospital Anxiety and Depression Scale, MSAS-Ch and PSEQ-9.

More than 50% of the participants reported that their needs were unmet. According to these studies, the highest needs were in the health system and information domain, physical domain and psychological domain concerning uncertainty about the future, fear about the cancer spreading, feelings of sadness, feelings about death and dying, concerns about those close to the patient and feeling down or depressed. A significant proportion of women with breast cancer reported that 71% of their needs were unmet specifically in the health information domain. The physical and psychological domain unmet needs were independently associated with a poorer quality of life among the participants. There were studies that reported that supportive care factors were identified such as faith, supportive structures, optimism and access to information. These scores were used to compare the severity of the unmet needs across the different samples and among the same sample at different time points, in addition to examining the factors associated with the specified needs.

## DISCUSSION

The purpose of this review is to summarize what is currently known about the unmet supportive care needs of breast cancer patients so then we are able to conduct the right interventions for the patients newly-diagnosed with breast cancer. The result showed that more than 50% of the breast cancer

patients reported that their needs were unmet concerning the health system and information, with these needs being the most prevalent and intense. Most of the studies showed that the unmet needs of breast cancer patients were related to the health system and information domain, the physical and daily living domain and the psychological domain. The younger participants had higher unmet needs across all domains. Married women had more un-met supportive care needs related to sexuality (Abdollahzadeh et al., 2014).

In the health system and information domain, 3 of the most common unmet needs were “to have one member of [the] hospital staff with whom you can talk about all aspects of your condition,” “to be informed about [your] cancer that is under control or diminishing” and “to be informed about things [that] you can do to help yourself get well” (Rahmani et al., 2014). The studies reviewed here found there to be more common psychological needs. The most prevalent unmet supportive care needs in the psychological domain were uncertainty about the future (78.6%) followed by fears about the cancer spreading (76.1%), feelings of sadness (69.2%), feelings about death and dying (68.4%), concerns about the worries of those close to the patient (65%), worries that the results of the treatment were beyond [their] control (65%) and feeling down or depressed (65%) (Edib et al., 2016). The studies reviewed here determined the more common psychological needs. The most prevalent unmet supportive care needs in the physical domain were feeling unwell a lot of the time (58.1 %) followed by a lack of energy/tiredness (57.3%) and pain (55.6%) (Edib et al., 2016).

The present review underscores the other factors that influence supportive care needs. The results of these studies show that spirituality, a positive attitude and support networks can potentially be effective and have a positive impact on the adjustments in life made by the breast cancer survivors. Faith in God was an important coping mechanism essential to all of the women in the study and it was a critical facilitator of survivorship. Support networks consisted of their family, church family, friends and co-workers. The concept of fear included the discovery of breast cancer and a fear of death, the negative side effects of treatment and the social stigma of having breast cancer (Torres et al., 2015). Social support is often recognized as a vital component of physical and psychological well-being. The majority of the participants indicated that their support came from their family, friends, spouses and health care providers. Having a positive attitude helped the participants during their survivorship journey; a positive outlook was described as “living stress-free and not allowing people to stress me” (Davis et al., 2018).

A better understanding of the supportive care needs of breast cancer patients and survivors will help the service providers to develop optimal supportive care interventions. The main goal of supportive care is to improve the quality of life of

breast cancer patients by helping them to manage their pain, fears and worries. We therefore have to know the factors highlighted in this review to understand these needs in a dynamic manner.

## CONCLUSION

The supportive care needs of breast cancer patients and survivors touch upon many domains. The most frequent of the unmet needs is related to the health system and information domain. The breast cancer patients feel fear about the [potential] metastatic process of their cancer, experience feelings of sadness and feelings about death and dying, show concern for those close to the patient and feel down or depressed. The younger participants have more un-met needs in all domains. In addition, married women had more un-met supportive care needs related to sexuality. Faith, supportive structures, optimism and access to information are the factors that are able to affect the supportive care needs of breast cancer patients and survivors. The education and psychological support programs available should be improved to provide for the unmet supportive care needs of patients newly-diagnosed with breast cancer.

## CONFLICT OF INTEREST

No Conflicts of interest have been declared.

## ACKNOWLEDGEMENT

The authors of this study would like to say thank you to the Faculty of Nursing and the Master’s students on the Nursing Study Programs for providing us with the opportunity to present this systematic review.

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