

The role of breast cancer nurse specialists in patient care, global Vs Sri Lankan trends; A comprehensive review

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ABSTRACT

Breast cancer is one of the most common cancers globally, and managing the physical, psychological, and emotional needs of patients require specialized care. The Breast Cancer Nurse Specialist (BCNS) plays a pivotal role in providing holistic care, offering support throughout the cancer journey.

This review explores extent of integration of this role across the world vs that of Sri Lanka; multifaceted role of the BCNS emphasizing their impact on patient outcomes; coordination of care, emotional support and patient education. It also explores the available literature in Sri Lanka with a view to identify challenges and to discuss future opportunities for establishing the role in Sri Lanka.

A literature search was conducted across major databases including *PubMed*, *Google Scholar* and *Scopus* for full papers in English language related to Breast CNS or oncology nurses for the period of 2000 to 2023.

Review confirmed the important role played by breast CNS with positive impact on patient experience and indirect effects on survival outcome. Level of Integration of Breast CNS into health care varies across the world. Well established in developed countries. Many developing countries have their own challenges. With available limited Literature, Sri Lanka has recognised the importance and challenges and suggest the role of Breast CNS to improve cancer care.

Keywords: *Breast Cancer Nurse Specialist, Breast Cancer, Sri Lanka.*

Introduction

In 2020, an estimated 2.3 million cases of female breast cancer were diagnosed globally, and about 685,000 women died from the disease. This accounts for 1 in 8 cancer diagnoses and 1 in 6 cancer-related deaths (1).

Breast cancer is the most common cancer among females in Sri Lanka. According to registry data, its incidence is rising, and approximately 3,000 new cases are diagnosed each year (2). The age

standardised incidence of female breast cancer in Sri Lanka appears to have increased from 17.3 per 100,000 in 2001 to 24.7 per 100,000 in 2010 with an estimated annual percentage change of 4.4 (3).

Newly diagnosed breast cancer patients experience feelings of shock, fear, anxiety, and disbelief. During the breast cancer experience, women need support to work through the range of emotions that they are experiencing and the decisions that they need to make (4).

Breast Cancer Nurse Specialists (BCNSs) or Oncology/ Cancer Nurse Specialists are highly trained professionals who provide personalized support, education, and care coordination, helping patients to navigate the complexities of their treatment and recovery (4,9,13,15).

The role of the BCNS has expanded significantly over the last few decades. More recent evidence from randomised controlled trials has suggested reduced distress, decreased anxiety and depression, and improved physical and social well-being through the intervention of the breast care nurse (6). This position is well incorporated into health care in developed countries with well-established training programmes leading to post graduation in the speciality, but not in developing countries including Sri Lanka (5,6,17,19).

This article reviews the key responsibilities of BCNSs, their influence on patient outcomes, level of integration of this role into cancer management across the world and experience in Sri Lanka.

Methods

This review follows a thematic approach to gather, analyse, and synthesise existing literature on the role of BCNSs in breast cancer care.

A literature search was conducted across major databases, including *PubMed*, *Google Scholar* and *e*. The search was restricted to English language articles published from 2000 to 2023 to capture recent advancements in BCNS roles. Keywords used in the search included “breast cancer nurse specialist,” “oncology nursing,” “patient support,” “breast cancer care,” and “BCNS impact,” “Cancer nurse in Sri Lanka”

Inclusion and Exclusion Criteria

Inclusion: Studies focusing on BCNS roles, specifically in areas of patient care, support, education, and outcomes in breast cancer management. Only studies with quantitative or qualitative data regarding patient outcomes and nurse interventions were included.

Exclusion: Articles unrelated to breast cancer, studies not specifying the BCNS or cancer nurse role, or studies focusing solely on non-nurse health professionals.

Data Extraction and Analysis

Data from selected studies were extracted into a structured table, capturing information such as:

- **Study Design:** Randomized controlled trials, observational studies, and qualitative research.
- **Sample Size and Population:** Information on patient and nurse populations, setting, and geographic location.
- **Key Findings:** BCNS activities, patient outcomes, and reported challenges, level of integration

This data was then thematically analysed to identify common themes and outcomes associated with BCNS roles and challenges

Results and Discussion

Twenty-two papers were included for the analysis. The review identified following key themes in BCNS roles that impact breast cancer care, namely care coordination, emotional support, patient education, and improved adherence to treatment protocols.

Care Coordination

Breast Cancer Nurse Specialists play a critical role in coordinating care among healthcare providers, ensuring seamless transitions across different stages of cancer treatment.

In the United Kingdom and Australia, studies have shown that BCNSs improve communication between oncologists, surgeons, and radiologists, leading to enhanced continuity of care (4,7). The BCNSs are often involved in treatment planning meetings, where they advocate for patient needs and preferences (13).

Improved care coordination by BCNSs has been associated with reduced hospital readmissions and higher patient satisfaction (4).

Patient Education

The BCNSs provide crucial information to patients, helping them understand their diagnosis, treatment options, and potential side effects.

Education sessions often include discussions on medication adherence, diet, lifestyle changes, and managing treatment side effects (8).

Research from Canada and United States demonstrate that BCNSs significantly enhance patient knowledge, leading to improved treatment adherence (9-11).

Educated patients are more likely to participate actively in their treatment plans, and BCNS-led education has been linked to better adherence rates in breast cancer treatment (7,12).

Psychosocial and Emotional Support

The psychological impact of a breast cancer diagnosis can be profound, and BCNSs are often at the forefront of providing emotional support (4, 8,14).

Studies report that BCNSs have helped to reduce patient anxiety and depression levels by offering compassionate support tailored to cultural and individual needs (7).

Emotional support from BCNSs has been linked to improved patient quality of life and reduced psychological distress (8,12).

Treatment Adherence and Survivorship Care

One of the key roles of BCNSs is to improve treatment adherence and to support patients in managing long-term survivorship.

Research from Australia and US has highlighted that BCNSs play a vital role in helping patients adhere to prescribed treatment regimens, especially in communities where healthcare access is limited (4,10,11,13). BCNSs provide follow-up support post-treatment, guiding patients through recovery and reducing the risk of recurrence through lifestyle and medication adherence advice (9,12,13).

Breast CNS Role in Globally

The implementation of BCNS roles varies depending on the healthcare system, resources, and cancer care policies of each country (5). Below are examples of countries that actively utilize BCNSs in their breast cancer care systems:

The United Kingdom (UK) was one of the first countries to formally recognize and integrate the role of Breast Cancer Nurse Specialists into its healthcare system (6). BCNSs are a cornerstone of the UK's National Health Service (NHS), especially in cancer care (5,6).

In Australia, BCNSs often receive specialized training and have set up competency standards (5,6). Canadian BCNSs often work in collaboration with other healthcare professionals, including oncologists and surgeons, and are instrumental in delivering patient-centred care (9,13).

United States, New Zealand, Ireland, Sweden, Netherlands and Norway have integrated this role, into the healthcare system (5,6,14,15).

South Africa has identified the need for BCNS although the availability of these professionals is more limited compared to higher-income countries (16).

In Asia, the adoption is growing, but it varies significantly across the region (17). Singapore started oncology nurse training and certification in 1989 and the first Breast CNS was trained in 1992 (18). Japan has oncology nurse specialists with postgraduate qualifications and oncology certified nurses (17,19). Indonesia started oncology nursing speciality training in 2020. India has post basic diploma in oncology nursing since 1989 (17). Thailand and Taiwan have oncology nursing societies. There is evidence of existing Oncology Nursing Training (17).

Breast Cancer Nurse Specialist role in Sri Lanka

Currently, there are no specific studies focussing exclusively on the role BCNSs in Sri Lanka, primarily because the role is still emerging and not formally established as it is in developed countries. However, several studies and reports highlight the broader role of oncology nursing and the increasing need for specialized nursing care in Sri Lanka's breast cancer treatment. Table 1 shows studies and resources found relevant to understanding the development of specialized cancer care, including the potential for BCNS roles in Sri Lanka.

Table 1: Potential role of BCNS in Sri Lanka: A summary of research findings

Author, Journal, Year	Topic	Findings
Lalitha Meegoda, <i>et al.</i> , <i>Sri-Lanka JPMC</i> , 2015	Perceived Palliative Care Needs of Cancer Patients, Nurses and Domiciliary Care providers at a National Cancer Referral Facility, Sri Lanka	- 96% of the nurses had not attended any educational programme on palliative care - In-service training programme can help to improve their knowledge
Jayantha Balawardena, <i>et al.</i> , <i>JCO Global Oncology</i> , 2020	Breast Cancer Survival in Sri Lanka	Establishment of multidisciplinary breast cancer teams will improve breast cancer outcomes in Sri Lanka
Brennan ME <i>Asia Pac J Oncol Nurs</i> , 2020	The Emergence of Breast Care Nursing in A Developing Nation: A Sri Lankan - Australian Training Partnership	- There are limited opportunities for ongoing education and career progression. - Nurses play a critical role in oncology care. - The role of the BCN has been demonstrated to improve physical and psychological outcomes in women with breast cancer, and in a population with increasing disease incidence combined with limited resources and other cultural issues that impact on early presentation, the role may have even more significant
Ravindri Jayasinghe <i>BMC Cancer</i> , 2021	Post treatment quality of life among Sri Lankan women with breast cancer	Provision of regular contact with the patients through trained cancer care nurses to recognize post breast cancer treatment issues and provide advice may help improve quality of life in these domains which ultimately will help improve overall quality of life
Badurakada Sunil Shantha De Silva, <i>et al.</i> , Open University of Sri Lanka, Conference Paper Academic Sessions, 2011	Nurse in Sri Lanka; Cancer Nurse's perspective	- The nurse in Sri Lanka has many roles. - The role of cancer nursing focuses on many areas including provision of support to patients with cancer, administering medications prescribed by the doctor, collecting specimens, ordering and handling drugs, coordinating paramedical services as well as supervising junior nurses and assistant staff members. - Lack of professional development, work stress, increasing work load, work related hazards, work load leading to less time to stick to safety precaution mentioned as challenges
Hirushi Kawya Munasinghe, <i>et al.</i> , <i>Journal of Healthcare Administration</i> , 2023	Opportunities and challenges in lifelong learning and continuing professional development among nurses at a cancer hospital in Sri Lanka	- Continuous Professional Development (CPD) is crucial for nurses in cancer hospital Sri Lanka to grow their careers and improve their knowledge and abilities. - Must overcome main obstacles such as family obligations, financial restraints, and occupational stress in order to motivate nurses to engage in CPD activities and foster professional progress.

In these, have explored

- Overview of breast cancer management and roles of various healthcare providers
- Challenges faced by oncology nurses in Sri Lanka, including those involved in breast cancer care
- Barriers to timely breast cancer diagnosis and treatment, and the role of healthcare providers, including nurses, in overcoming these challenges,
- Psychological and emotional challenges faced by breast cancer patients, which is a key area where BCNS roles could provide significant benefits.
- Current state of cancer nursing education identifying the gaps in oncology-specific training and how international collaborations have been instrumental in improving cancer care including the potential for enhancing oncology nursing.

Challenges in Implementing BCNS Roles:

The integration of BCNS roles in healthcare systems is not without challenges. Studies identified the following key barriers:

Resource Limitations: In low-resource settings, limited funding and staff shortages restrict the implementation of BCNS roles (5,14). In Sri Lanka nurses in oncology wards continue to provide the services of a BCN amidst other duties but not well standardised (20,21).

Role Clarity and Scope: BCNS roles may overlap with those of other healthcare providers, leading to challenges in establishing clear job responsibilities, setting up standards and training curriculums (5,6,12).

Training and Certification: The standardization of BCNS training remains inconsistent globally, and countries with more established BCNS roles, such as UK, Australia, Canada, and some of Asian countries, continue to advocate for specialized training programmes (5,6,17-19).

Conclusions

The BCNS plays a central role in providing holistic, patient-centered care to individuals diagnosed with breast cancer and significantly enhance patient outcomes and quality of life.

Level of Integration of Breast CNS role into health care varies across the world. Well established in developed countries. Sri Lanka does not yet have a widespread formalized role for BCNS in the same way as developed countries. For now, nurses in oncology wards in Sri Lanka provide many of the essential services that BCNSs would typically offer. Limited Literature in Sri Lanka highlights the importance of the BCNS. Resource limitation, gaps in training and knowledge were highlighted amidst many other challenges.

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