

Original Article

The Emergence of Breast Care Nursing in A Developing Nation: A Sri Lankan–Australian Training Partnership

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ABSTRACT

Objective: In Sri Lanka, the incidence of breast cancer is increasing. Yet, Sri Lankan nurses have limited specialist education opportunities and no formal recognition of the breast care nurse (BCN) role to address this growing need. This project aimed to encourage the emergence of the BCN role in Sri Lanka by delivering a workshop for nurses to increase the knowledge and confidence in delivering breast cancer care.

Methods: This project was initiated by Zonta, a nonprofit, service organization, in collaboration with the National Cancer Control Programme of the Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka. A 2-day intensive workshop was designed by a collaborative team of Australian and Sri Lankan health professionals and delivered in Colombo. Its effectiveness was evaluated by measuring the knowledge about breast cancer, confidence with clinical care, and satisfaction with the workshop.

Results: Fifty nursing participants attended the workshop. Outcomes included a statistically significant increase in knowledge about breast cancer ($P = 0.012$) and confidence in clinical care ($P < 0.003$ for all aspects of confidence). All participants were highly satisfied with the workshop, agreeing that the content was relevant and that they developed new skills. **Conclusions:** Nurses in Sri Lanka have unmet needs for specialty training and education. A 2-day workshop can improve knowledge and confidence, with the potential to improve patient care and increase the recognition of the BCN role. Lessons learnt from the collaboration between the nongovernment and government partners provide a model for the development of specialist nursing education.

Key words: Breast cancer, education, nursing, Sri Lanka

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Introduction

The role of the specialist breast care nurse (BCN) is well-developed in Australia, where nurses have been an essential component of the breast cancer workforce since the 1990s.^[1,2] A BCN has been defined as “a registered nurse who applies advanced knowledge of the health needs, preferences, and circumstances of women with breast cancer to optimize the individual’s health and well-being at various stages across the continuum of care, including diagnosis, treatment, rehabilitation, and palliative care.”^[3] The BCN can improve the physical and psychological outcomes in women with breast cancer, including reducing distress, anxiety, and depression.^[4,5] The value of a BCN as part of the multidisciplinary treatment team is recognized by inclusion in clinical practice guidelines internationally.^[6,7]

Little is known about the development of the specialist nursing role in breast cancer in low- and middle-income countries.^[8] Despite nurses forming the largest group of health-care providers in developing countries, there is a lack of specialty training, and the important role that nurses can play in cancer care may not be recognized.^[9,10]

Sri Lanka, like many developing countries, has a developing health system in which there are very few specialist roles in nursing. Breast cancer is now the most common cancer in Sri Lankan women, and the incidence has increased from 17.3/100,000 in 2001 to 24.7/100,000 in 2010.^[11,12] With this increase, there is growing potential for a specialized BCN role.

Sri Lanka

Sri Lanka is a small island nation with an area of 65,600 km² and a population of just under 22 million.^[13] Sri Lanka (previously Ceylon) gained independence from Britain in 1948. Its recent history includes a devastating 26-year civil war that ended in 2009. In the decade since then, Sri Lanka has made significant progress, and it is now one of only two South Asian Nations with a “high” rating for its United Nations Human Development Index.^[14]

Sri Lanka has a well-established universal health-care system that provides free public healthcare.^[11] There is also a private health sector. The delivery of health services is organized on a provincial level, with each of the nine provinces having a network of hospitals. There are various levels of hospitals: divisional (nonspecialist primary care), base, district general, provincial general, and teaching hospitals. Among these hospitals, there are also 22 specialized cancer treatment units across the country.^[11]

Nursing in Sri Lanka

Nursing in Sri Lanka is struggling to gain professional recognition.^[15] There are different pathways to nursing

qualification, including hospital-based training and university-based training. There are formal credentialing standards and registration for nurses who work in the government health-care sector. To work in the government health sector, nurses must graduate with a qualification from a recognized training institution. Examples are government Schools of Nursing qualifications or a Bachelor of Science in Nursing program at a university. This is followed by a 6-month orientation course conducted by the Ministry of Health (MoH). This program is not mandatory for nurses working outside the government system, and standards of education therefore vary greatly.^[15]

Nurses in Sri Lanka report high levels of stress at work, partly due to the overcrowded nature of their wards (which may have 90 patients shared between five nurses) and partly to feeling poorly equipped to handle the problems they manage. Nurses also report feeling powerless in a system where their workload is determined by consultant doctors who may not be respectful of the nursing role. There are limited opportunities for ongoing education and career progression. Only 1% of nurses have a postgraduate qualification.^[16]

Breast cancer in Sri Lanka

The incidence of breast cancer is rapidly increasing.^[11,12] Although mammography facilities are available in almost all the provinces for diagnostic purposes, there is no organized mammographic screening program on a population level. Breast cancer tends to be more advanced at the diagnosis compared to the Western countries.^[12] There is good local availability of breast diagnostic and treatment services. Most cancer treatment is delivered free in the public health system once it is diagnosed. However, the delay in diagnosis is a challenge and is often the result of fear or lack of understanding on the part of the patient or due to other cultural factors.

Aim

This project aimed to encourage the emergence of the BCN role in Sri Lanka by delivering a training workshop for Sri Lankan nurses and establishing the links between Australia and Sri Lanka for ongoing collaboration.

Methods

Development of links between Australia and Sri Lanka

This project was initiated by the Zonta Club of Botany Bay, Australia, a branch of an international service organization that works to empower women. This organization has a strong record of breast cancer support in Australia. A connection between a Zonta Club in Sydney, Australia and a club in Colombo, Sri Lanka leads

to members working together to build a project team within Zonta. Its aim was to develop a breast cancer education program for nurses in Sri Lanka that would be delivered by an Australian team. Over a period of 2 years, the Zonta clubs worked to establish links with Sri Lankan cancer specialists, general surgeons, and public health physicians at the MoH. The MoH approved the workshop and facilitated the training, ensuring that nurses from all nine provinces were represented by at least two participants. Funding was provided by the Zonta Club in Australia in partnership with a local Sri Lankan cancer philanthropist. The Zonta Club recruited an experienced Australian BCN Clinical Nurse Consultant/Nurse Educator and a Breast Physician to develop the curriculum with input from Sri Lankan experts and to deliver a 2-day workshop for the nurses in Sri Lanka.

Workshop format

The workshop was facilitated by the two Australian health professionals with the support of local Sri Lankan medical personnel. The format was short lectures and small-group activities. Lectures delivered the content on breast cancer risk factors, diagnosis, and treatment. There were specific lectures about the role of the BCN in Australia and discussion about how nurses in Sri Lanka could contribute at all stages of the cancer trajectory. Small-group work taught the technique of breast self-examination and clinical breast examination using simulation models and discussed ways that nurses could educate their local community about breast health. Counseling strategies for patients and their families before and after cancer surgery were also discussed. All contents were delivered in English, as nursing courses are taught in English in Sri Lanka. Sinhalese-speaking doctors were available as translators and were not required as participants indicated that they were understanding the presentations.

Challenges in delivering care

To aid the tailoring of the workshop, all participants were asked to list a few issues that challenged them in their delivery of breast cancer care. These were submitted to the facilitators at the beginning of the workshop, and the topics were incorporated into the discussion and activities. The lists of challenges were reviewed and classified into themes.

Outcomes and measures

The workshop was evaluated by measuring the knowledge about breast cancer, confidence with clinical care, and satisfaction with the workshop. Knowledge was measured using a five-item true/false test asking questions about breast cancer risk factors and treatment, with the

same questions being asked before and after the workshop. Confidence was measured using a six-item five-point Likert scale questionnaire about confidence in dealing with particular aspects of clinical care, with the same questions being asked before and after. A higher score on the questionnaire showed a higher level of agreement with statements, indicating high confidence. Satisfaction with the workshop was measured using a four-item five-point Likert scale questionnaire that also contained three free-text items asking for feedback about the best aspects, suggestions for improvement, and general comments. The comments were grouped and examined for common themes.

Outcome measures were analyzed by entering the questionnaire data into a study database and using descriptive statistics to summarize the data. The Chi-square analysis was used to compare the outcomes between groups, and a paired sample *t*-test was used to compare the differences in samples from the pretest and posttest. $P \leq 0.05$ was considered to be statistically significant for all the analyses.

Results

Fifty nursing participants attended the workshop, which was held on February 2019. Forty-one completed questionnaires before and after the workshop, giving matched data for knowledge and confidence outcomes. Further, one nurse completed only the preworkshop questionnaire (providing demographic data and unmatched knowledge and confidence data) and eight completed only the postworkshop questionnaire (providing evaluation data and unmatched knowledge and confidence data).

Participants' characteristics are shown in Table 1. All were females, and the median age was 40.5 years. This was an experienced group of nurses, with 64.3% having more than 10 years of nursing experience. Nearly 92.9% care for women with breast cancer in their current role and 14.3% have attended previous training in breast care. Almost half had a breast cancer caseload of more than 50 women per year.

Challenges in delivering breast cancer care

Participants listed the main challenges they face in delivering breast cancer care. There were 149 individual responses from 30 participants, and the themes are summarized in Figure 1. The most commonly reported challenge was lack of breast cancer knowledge (reported by 60% of participants). Nurses indicated that this referred to their patients' lack of understanding as well as their own and their colleagues' lack of knowledge. Other barriers identified included patient factors such as fear and beliefs about breast cancer (40%) and resource and access issues, including resource availability, economic

Table 1: Participants' characteristics (n=42)

Characteristics	n (%)
Age (years)	
Median	40.5
Range	25-53
Gender	
Female	42 (100.0)
Male	0
Position title	
Nursing officer	36 (85.7)
Nursing sister	5 (11.9)
Nurse in charge	1 (2.4)
Nursing training	
Hospital training	23 (54.8)
University - BSc or equivalent	10 (23.8)
Postgraduate qualification	3 (7.1)
Diploma in nursing	6 (14.3)
Nursing experience (years)	
<10	15 (35.7)
10-20	13 (31.0)
>20	14 (33.3)
Previous breast training	
No	35 (83.3)
Yes	6 (14.3)
Not sure	1 (2.4)
Currently caring for breast cancer patients	
Yes	39 (92.9)
No	3 (7.1)
Estimated breast cancer patients/year	
None	2 (4.8)
<20	5 (11.9)
20-50	7 (16.7)
>50	20 (47.6)
Not sure	8 (19.0)

factors (especially poverty and poor education, 37%), and lack of follow-up. The role of the woman as a caregiver in the family was identified by 37% of participants as a challenge, as it was perceived that the lack of family support or the role of the woman as caregiver made it difficult for women to undergo tests and treatment. Late diagnosis and failure to attend follow-up appointments were also noted (43%). Quotations from nurses explain these further and are shown in Table 2.

Knowledge and confidence

Outcomes from the five-item knowledge test and the six-item confidence questionnaire are shown in Table 3. The comparison was made between the pre- and post-workshop scores. There was a statistically significant increase in both knowledge and confidence after workshop compared to preworkshop. There was no difference in the change in knowledge between the nurses with different levels of experience ($P = 0.781$) or different breast cancer patient loads ($P = 0.846$).

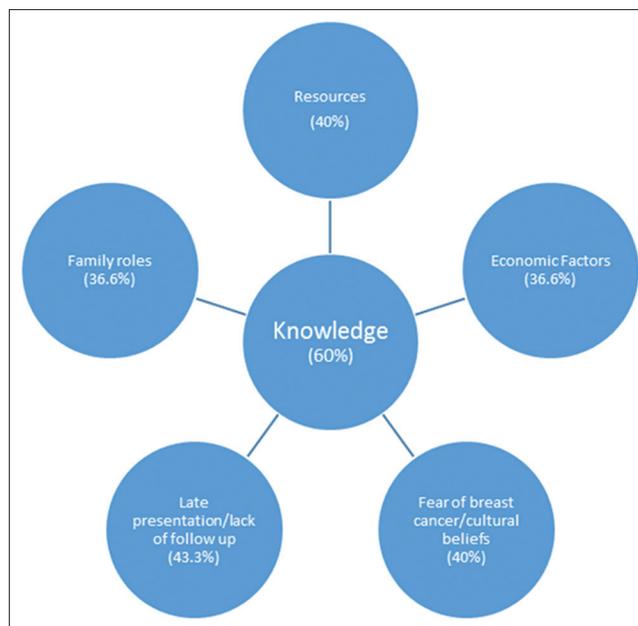


Figure 1: Challenges in delivering breast cancer care reported by the participants (n = 30). Percentages indicate the proportion of participants reporting challenges in the area

Satisfaction with the workshop

The results of the survey of satisfaction with the workshop are shown in Table 4. All participants agreed or strongly agreed that the content was relevant to their work, that it was easy to understand, and that they learned new skills. Most (85%) would attend a further workshop. On subgroup analysis, there was no difference in any of the measures of satisfaction with the workshop between different experience or caseload groups.

Discussion

This project was initiated by a community women's advocacy group in Australia, and it delivered a 2-day breast cancer workshop to Sri Lankan nurses. This model can provide seed funding for health projects in developing countries. Working through links with community groups may also encourage future activity, such as further seminars delivered by local experts, to follow on from this project.

The workshop participants identified several challenges to delivering care. This provided insight into the nursing and health system barriers in Sri Lanka. Knowledge of nurses and the wider community was the most commonly noted challenge. This is consistent with the finding of Karthiyejan who found that in a sample of 222 nursing and medical students, <50% were able to identify the important risk factors for breast cancer.^[17] Seneviratne *et al.* who surveyed a cohort of 732 female undergraduate students in Sri Lanka found that 67.8% had poor knowledge about breast cancer.^[18] Knowledge about breast cancer helps to facilitate

the diagnosis and early treatment and is particularly important in low- and middle-income countries where disease is often diagnosed at a more advanced stage.^[19] Fear and cultural issues were reported by nurses attending the workshop to be barriers to care. These have been identified previously as factors associated with a delayed presentation in Sri Lanka. Patients with Stage III or IV disease treated at a teaching hospital in Kandy demonstrated that fear

of hospitalization and embarrassment around breast examination by a health professional were reasons for delaying medical consultation in 38% and 29% of cases, respectively.^[20] Participants attending this workshop indicated that their confidence in explaining breast cancer to women increased as a result of attending. Training of more nurses to educate the community may have an impact on increasing breast awareness in Sri Lanka.

The workshop met its main aim which was to deliver education in an appropriate format for the existing level of knowledge of the participants. The outcome measures demonstrated that nurses had a significant improvement in their knowledge and confidence as a result of attending. The evaluation showed that the content was relevant to their work and easy to understand. The potential language barrier was anticipated as a challenge, but translators were not required.

As well as offering an opportunity for nurses to gain valuable knowledge, educational courses such as this have the potential to improve the professionalism of nursing overall. In Sri Lanka, there is little available postgraduate training for nurses, and this learning experience was highly valued by the participants. Nurses in Sri Lanka are struggling to create a professional identity, and gaining further education is a step toward recognition.^[15,16] A further

Table 2: Participant quotations about their challenges in delivering breast cancer care (n=30)

Challenges	Quotation
Knowledge	Almost most of the ladies diagnosed with cancers have the misunderstandings and the misconceptions...
Cultural beliefs	Our country is a South Asian country. Our Sri Lankan women are very shy. They do not see (show) their breast to anyone because it is our cultural issue. That was a big issue for the early detection of breast cancer
Economic	...Economic problems are given priority
Late presentation	Sometimes, they do not know the importance of early diagnosis
Family roles	The most challenging part is patients away from the home while their children are at home. Their main problem is to shorten the time they spend in the hospital. Hence, they easily requesting mastectomy instead of reconstruction or a flap repair which they believe take much more time than simple mastectomy Some family problems - they do not have time to come to the doctor, leaving the family members at home
Resources	Many hospital, there were no facilities to identify breast cancer

Table 3: Knowledge and clinical confidence of participants before and after the workshop

Item	Precourse mean score (number of correct answers)	Postcourse mean score (number of correct answers)	Mean change	P
Knowledge (5 items)				
Knowledge about breast cancer (number of correct answers; n=41)	3.00	3.49	0.49	0.012
Confidence in clinical care (7 items)				
General confidence in talking to women about breast cancer (n=37)	3.59	4.78	1.19	<0.001
Discussing breast cancer screening and breast awareness (n=41)	4.00	4.83	0.83	<0.001
Explaining diagnostic tests for breast cancer (n=40)	3.88	4.78	0.90	<0.001
Discussing breast cancer treatment (n=38)	4.08	4.66	0.58	0.003
Discussing follow-up care after cancer treatment (n=38)	4.05	4.79	0.74	<0.001
Supporting women with impact of cancer diagnosis (n=35)	3.66	4.54	0.89	<0.001

Table 4: Satisfaction with the workshop

Question	Response	n (%)
1. The workshop was relevant to my work	Agree or strongly agree	48 (100.0)
	Neither agree nor disagree	0
	Disagree or strongly disagree	0
2. The presentations were easy to understand	Agree or strongly agree	48 (100.0)
	Neither agree nor disagree	0
	Disagree or strongly disagree	0
3. I learned new skills that I can use in my work	Agree or strongly agree	48 (100.0)
	Neither agree nor disagree	0
	Disagree or strongly disagree	0
4. I would attend another similar workshop about breast cancer	Agree or strongly agree	41 (85.4)
	Neither agree nor disagree	0
	Disagree or strongly disagree	7 (14.6)

benefit of the workshop was the networking opportunity that it provided. Nurses from all across the country came together and realized that there was a need to form a breast interest group. The formation of the group was encouraged by the MoH. It may lead to further educational opportunities for members and may also help to empower nurses and raise their profile.

Conclusion

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 significance. A 2-day workshop providing evidence-based clinical information can improve knowledge and confidence in nurses, with the potential to improve patient care. It is hoped that this project will form the foundation for long-term collaboration to improve the professional development opportunities of Sri Lankan nurses caring for women with breast cancer.

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Conflicts of interest

There are no conflicts of interest.

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