

## **Transition from treatment to survivorship: Effects of an e-Home Based Symptom Management and Mindfulness Training Programme on Quality of Life in Breast Cancer Survivors**

Breast cancer is the most common cancer in women in Singapore and worldwide. With the dramatic advances in diagnosis and cancer treatment regimens, the prognosis for women with breast cancer has improved significantly. Clinically, the first five years post-treatment are a critical phase, when the survivors may face a multitude of problems, including persistent and/or late-emerging symptoms following the cancer and its treatment, psychosocial distress associated with the risk of cancer recurrence, chronic uncertainty and social disruption. The demands for and importance of long-term survivorship care in the breast cancer population are growing.

In this interview, **Dr Karis Cheng**, Professor from National University of Singapore, shared about her recent research on developing an e-home based symptom management and mindfulness training programme for breast cancer survivors and to determine its effects on the endpoints including quality of life, symptom distress, psychosocial adjustment, psychological morbidity, and unplanned outpatient attendance or hospitalisation in breast cancer survivors.

**Q1: What initially sparked your interest in conducting the research on developing an e-home based symptom management and mindfulness training programme for breast cancer survivors?**

**A:** Indeed it was my patients with breast cancer motivated me to take a great step forward for psychosocial and patient-centred cancer care and research. As more women than ever are surviving breast cancer, the research we pursue, the knowledge we develop, and the care we provide is needed to provide the very best support for women to get through their transition from breast cancer treatment to survivorship. In light of this, I decided I must let my passion for breast cancer survivorship care research come through and flourish. My substantial ground works over the past several years on understanding the life changes following cancer treatment completion, the relationship between symptoms and quality of life, supportive care needs, and self-management experience among breast cancer survivors told me and the wider community in breast cancer research that e-Home Based Symptom Management and Mindfulness Training Programme could be a brilliant avenue to advance our care and support for breast cancer survivors. And the only way to do that was to put up a good research proposal to begin this scientific journey. We were truly blessed to have the great support from the Singapore Cancer Society Research Grant to kick start this meaningful journey.

**Q2: Can you briefly introduce the e-home based symptom management and mindfulness training programme developed in this study?**

**A:** Our e-home based symptom management and mindfulness training programme was designed and coordinated by the major healthcare disciplines, including nursing, psychology medicine and psychology. It included a two weekly 60-minute online education module and a six weekly 60-minute online self-administered mindfulness training programme, with the aim of providing individuals with the knowledge and self-management skills necessary to manage their persistent and/or late-emerging symptoms following the cancer and its treatment, psychosocial distress associated with the risk of

cancer recurrence, chronic uncertainty, social disruption, and thus to improve their physical and psychological well-being. For women without access or did not prefer online programme modules, we offered electronic CD or print materials. The education module covered the topics of fatigue, arm pain, numbness/ tingling, lymphoedema, and problems with sleeping that could be experienced as breast cancer survivors go through the survivorship. The mindfulness training programme included several mindfulness exercises such as body scan meditation, mindful breathing and walking meditation.

**Q3: What are the major findings in this study?**

**A:** Although this study was unable to find a statistically significant result, the results suggested that our e-home based symptom management and mindfulness training cancer survivorship programme may improve physical/spiritual sides of quality of life and self-efficacy, enhance some domains of psychosocial adjustments, and increase the levels of certain areas of mindfulness from the beginning through 24 weeks of the study. In addition, our findings revealed a positive experience in regards to the home-based approach in breast cancer survivorship care programme.

**Q4: What are the research and clinical implications of this study?**

**A:** We believe that this study contributes greatly to the emerging evidence on breast cancer survivorship care and rehabilitation. It provides a perspective specific to the transition from treatment completion to the first five years post-breast cancer treatment. Clinically, this study may contribute to a possible approach and strategy for addressing the physical and psychological health problems of breast cancer survivors. As Singapore and many countries in the world move towards an increasing breast cancer survivor population, this study is important to support the quality of long-term survival for women with breast cancer.

**Q5: Do you have any future research plan based on this study?**

**A:** We plan to have a large sample size study with cross-country participations to substantiate the results of this study and to examine the transitional processes of breast cancer survivors across different contexts. In addition, we might modify the programme contents and strategies, particularly the inclusion of peer-led approach to enhance survivors' engagement in the survivorship programme and hence patient/clinical outcomes.

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**Researcher portfolio**

This study was completed by the team led by Dr Karis Cheng, Professor from National University of Singapore. Her research interest includes supportive cancer care, cancer survivorship, psycho-oncology and geriatric oncology.

The team members included Dr Elaine Lim, Senior Consultant from National Cancer Centre Singapore; Dr Rosalind Siah, Senior Lecturer, National University of Singapore; Dr Roger Ho, Associate Professor from Department of Psychological Medicine, National University Hospital; Dr Shian-Ling Keng, Associate Professor and Head of Studies, Psychology, Yale-NUS College; Dr Melvyn Zhang, Senior

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