

# Cancer Nurses Research Review™

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Issue 1 - 2024

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### Abbreviations used in this issue:

TIVAD = Totally implantable venous access devices.

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## Welcome to the first issue of Cancer Nurses Research Review.

We open this issue with a study analysing recently qualified nurses' challenges in radiation therapy using Japan's National University Hospitals. This study surveyed novice nurses with less than five years of experience working in radiation oncology. A study on community based multidimensional cancer rehabilitation presents a unique model of care based within Norwegian Healthy Life centres, where participants underwent a 12-week program encompassing physical exercise and Psychoeducation. We also present a study using a mobile phone chatbot on capecitabine to improve medication adherence and toxicity management among patients with GI cancers.

We hope you enjoy this Cancer Nurses Research Review issue and look forward to welcoming your feedback.

Kind Regards,

**Bronwyn Jennings**

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## Analysing the challenges faced by recently qualified nurses in radiation therapy nursing at Japan's National University Hospitals

**Authors:** Tsuchihashi T & Matsunari Y

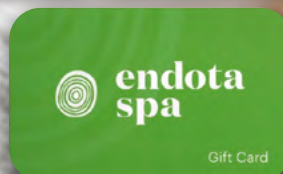
**Summary:** This study investigated the challenges newly graduated nurses face entering radiation therapy nursing at Japan's National University Hospitals, aiming to shed light on training needs. A survey of nurses from five prestigious medical institutions explored real-time experiences, emphasising adverse events and symptom management knowledge. Results revealed varied experiences among nurses, with notable difficulties in treating head and neck cancers, especially alongside chemotherapy. The study concluded that certified nurses were crucial in supporting and transferring knowledge in complex cases, emphasising the importance of peer support and consultations.

**Comment:** This study surveyed novice nurses with less than five years of experience working in radiation oncology to identify experiences and challenges in providing specialised care. Results showed that nurses had limited training and education opportunities despite perceiving they were looking after complex or difficult cases. Nurses instead drew on the experience and support of more experienced nurses in the forms of buddy nurses, nurse managers or preceptors to provide support. Although the collaborative and collegiate experience that these nurses encountered is to be commended, this study highlights the lack of acknowledgement of radiation therapy nurses as a recognised specialty. Of the 44 institutions invited to participate, only five were accepted, and of those, one had nursing standards and procedures in place. This highlights the need for the development of specialised training programs, resources and standards for practice.

**Reference:** *Asia Pac J Oncol Nurs.* 2023;11:100347

[Abstract](#)

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## Community-based multidimensional cancer rehabilitation in Norway

**Authors:** Ahmedzai HH et al.

**Summary:** This study evaluated the feasibility and acceptability of a new community-based multidimensional cancer rehabilitation program in Norway. Sixty participants began the 12-week program, with 55 completing it, predominantly females (80%) with a mean age of 56 years, mostly with breast cancer (42%). High retention (92%) and adherence rates were noted across all intervention components. Participants found the exercise component most beneficial, followed by individual consultations and peer support. Qualitative data supported these positive outcomes, highlighting the program's effectiveness and participant satisfaction. This study suggested that promising feasibility and acceptability of the rehabilitation program, emphasising its potential value in supporting individuals with cancer.

**Comment:** The impact that a cancer diagnosis and its associated treatments have on a person cannot be overstated. Side effects range from short-term to life-long and vary by the individual. Post-treatment, also known as survivorship or, in this instance, rehabilitation services, can be offered in various modalities. This study presented a unique model of care based within Norwegian Healthy Life centres, where participants underwent a 12-week program encompassing physical exercise and psychoeducation. Program adherence was high, and participant feedback was largely positive. The preference to have this program in the community, away from the hospital environment, which for many has negative connotations, is a learning for those designing programs in the future. Although a model of care that works within a small nation like Norway with municipal councils offering free services, replication across a country as vast as Australia is unlikely to be successful without the incorporation of telehealth and virtual sessions.

**Reference:** *Cancer Nurs.* 2024;47:E123-33

[Abstract](#)

## Effect of digital storytelling intervention on resilience, self-efficacy and quality of life among patients with non-small cell lung cancer (NSCLC)

**Authors:** Zhu J et al.

**Summary:** In this study, 90 participants were randomly assigned to either a digital storytelling intervention group or a control group receiving routine care. The intervention group watched four videos covering positive psychology, healthy habits, social support, and exercise, while the control group received no additional intervention. Resilience, self-efficacy, and quality of life were measured at different time points: before surgery (baseline), immediately after the intervention, one-month post-intervention, and three months post-intervention. Using a linear mixed effects model, the study found that the intervention group showed significant improvements in resilience, self-efficacy, and quality of life compared to the control group across all follow-up periods. Sensitivity analysis confirmed these results, suggesting the effectiveness of digital storytelling in enhancing psychological outcomes among surgical patients.

**Comment:** This randomised controlled trial examined the effect of digital storytelling and its impact on patients diagnosed with non-small cell lung cancer. Participants in the intervention group were found to have greater improvements in resilience, self-efficacy, and quality of life at all follow-up time points compared to the control group, which received standard care and was measured using several validated assessment tools. This study adds to existing evidence designed to build patients' resilience; however, traditionally, these have been offered in the post-treatment or survivorship stage. The researchers aimed to develop reliance and self-management tools from the initial stages of treatment. These findings demonstrate the value that patients place on hearing stories and experiences from others going through the same diagnosis and treatment journey. The need for relatable content as part of patient information resources and content is an important consideration for health professionals and organisations. These findings could likely be replicated across different tumour streams. However, further research is required.

**Reference:** *Eur J Oncol Nurs.* 2024;69:102535

[Abstract](#)

## Effect of guided imagery on patient comfort, vital signs, pain, anxiety and satisfaction in cancer patients undergoing port catheterisation with local anaesthesia

**Authors:** Acar K & Ersöz H.

**Summary:** This study aimed to assess the impact of guided imagery on patients undergoing port catheterisation with local anaesthesia. Among 80 cancer patients, those who received guided imagery before and during the procedure reported lower pain and anxiety levels, higher satisfaction, and increased comfort compared to the control group. Additionally, patients practising guided imagery showed significantly lower respiratory and heart rates by the end of the procedure. While there was no significant difference in blood pressure, the findings suggest that guided imagery can effectively alleviate discomfort, reduce anxiety, and improve physiological responses during medical interventions under local anaesthesia for cancer patients.

**Comment:** This interesting study presented the findings of a randomised controlled trial examining the effect of guided imagery in cancers undergoing insertion of a Portacath, now known in Australia as Totally Implantable Venous Access Devices (TIVAD). Eighty participants participated in the study, with those randomised into the intervention arm listening to guided imagery recording the day before and the day of the device insertion. A combination of validated assessment tools and clinical measurements were recorded prior to, during and after the procedure. Patients in the intervention arm reported decreased levels of pain and anxiety and higher levels of satisfaction and comfort compared to their control arm counterparts. Furthermore, significant differences in the subjective measurements of heart rate and respiratory rate were also observed. This study demonstrates a simple, low-cost complementary intervention that could be implemented across a variety of healthcare facilities and clinical interventions.

**Reference:** *Cancer Nurs.* 2024;47:93-9

[Abstract](#)

## Oral health and oral care in patients in a surgical context

**Authors:** Edfeldt K et al.

**Summary:** This descriptive and comparative study in Sweden assessed oral healthcare delivery in surgical wards. Among 50 patients surveyed, 38% reported severe oral symptoms, with most lacking help with oral care. Registered nurse assessments using the Revised Oral Assessment Guide (ROAG) revealed that 74% had oral health issues, yet only 10% received assistance. There was a discrepancy between patient self-assessment and nurse assessment, with nurses rating oral health as worse. This study aimed to underscore deficiencies in oral care provision and emphasises the need for systematic assessments by nurses and the implementation of oral care routines by nurse managers in surgical settings to effectively meet patients' fundamental care needs.

**Comment:** For many, oral health as part of basic hygiene care is one of our earliest memories when training to become a nurse. This small, single-centre study investigated oral assessment results and compared patient's self-reports with nurse assessments. Patients were found to score their oral health better than nurses. However, almost 40% of patients reported symptoms such as pain and irritated gums and impacts on their ability to swallow and talk. In comparison, nurse assessments reported that only 25% of patients had good oral health. Despite these findings, surprisingly few patients were offered simple interventions such as reminders, ensuring toothbrushes and toothpaste were at hand and providing assistance if required. Many treatments that oncology patients undergo, such as chemotherapy, can drastically affect the integrity of the oral mucosa, leading to conditions such as mucositis and thrush with subsequent impacts on nutrition and hydration. Although this study was set in surgical wards and not oncology-specific environments, these findings highlight the importance of oral health assessments and interventions and encourage us as nurses to reflect on the fundamentals of nursing care.

**Reference:** *J Clin Nurs.* 2024;33:2201-8

[Abstract](#)

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▼ This medicinal product is subject to additional monitoring in Australia. This will allow quick identification of new safety information. Healthcare professionals are asked to report any suspected adverse events at [www.tga.gov.au/reporting-problems](http://www.tga.gov.au/reporting-problems). **Abbreviations:** CI, confidence interval; CP, carboplatin-paclitaxel; dMMR, mismatch repair deficient; HR, hazard ratio; irAE, immune-related adverse event; IV, intravenous; MSI-H, microsatellite instability-high; PD-1, programmed cell death protein 1; PFS, progression-free survival; TGA, Therapeutic Goods Administration. **References:** 1. JEMPERLI Product Information. 2. Mirza MR, et al. N Engl J Med. 2023;388(23):2145-2158. 3. Pharmaceutical Benefits Scheme. Dostarlimab. [www.pbs.gov.au](http://www.pbs.gov.au). For information on GSK products or to report an adverse event involving a GSK product, please contact GSK Medical Information on 1800 033 109. Trademarks are owned by or licensed to the GSK group of companies © 2024 GSK group of companies or its licensor. GlaxoSmithKline Australia Pty Ltd. Melbourne VIC. PM-AU-DST-BNNR-240004. Date of Approval April 2024.

## Pilot study of a mobile phone chatbot for medication adherence and toxicity management among patients with GI cancers on capecitabine

**Authors:** Lau-Min KS et al.

**Summary:** This pilot study evaluated PENNY-GI, a mobile chatbot designed to enhance medication adherence and manage toxicity in gastrointestinal cancer patients undergoing capecitabine treatment. Initially intended for all capecitabine-containing regimens, the study focused on capecitabine monotherapy due to integration challenges with other treatments. Using design thinking principles, iterative refinements were made based on real-time safety and usefulness data. Among 40 enrolled patients, 7.3% of medication-related and 2.5% of symptom-related text exchanges had incorrect recommendations. Exit interviews with 24 patients revealed reliable and user-friendly medication reminders but noted the symptom management tool's simplicity hindered its effectiveness. This study highlighted the potential of mobile chatbots like PENNY-GI in cancer care while identifying areas for improvement in symptom management functionality.

**Comment:** Digital technologies, including the use of automated messages and chatbots, are a part of our everyday lives. Within healthcare, they have the potential to improve patient experience through faster access to appropriate information and support, increased medication adherence, and decreased healthcare utilisation. Furthermore, in the Australian context, they can help meet the needs of our patients living in regional and remote areas, who have decreased health service access compared to those living in metropolitan locations. This study presented the findings of a pilot study trialling PENNY-GI, a mobile text messaging chatbot. The authors reported a small but not insignificant number of medication-related errors and incorrect information related to reported symptoms. The authors clearly identified the limitations of PENNY-GI and provided a number of learnings and future improvements that anyone considering utilising such technologies within their service should review. Further considerations in the development and evaluation of these platforms should also include meeting the needs of patients from culturally and linguistically diverse backgrounds.

**Reference:** *JCO Oncol Pract.* 2024;20:483-90

[Abstract](#)

## Physical, leisure and daily living activities in patients before, during, and after radiotherapy for cancer

**Authors:** Efverman A et al.

**Summary:** This longitudinal study aimed to assess changes in daily, leisure, and physical activities in 196 patients undergoing pelvic-abdominal radiotherapy, as well as identify factors associated with failure to restore activity levels post-treatment. Results indicated a significant decrease in activity levels during radiotherapy across various domains. Nearly half of the patients (47%) failed to restore activity levels afterwards. Factors associated with non-restoration included having colorectal cancer, age over 65, lower education, and higher capacity in daily activities at baseline. Patients failing to restore activity levels were more likely to experience anxious and depressed moods, along with a poorer quality of life post-radiotherapy. These findings concluded that there is a need for targeted interventions to support activity restoration in radiotherapy patients, particularly those with identified risk factors.

**Comment:** Physical activity is integral to cancer care and recovery, supported by guidelines such as COSA's "Position Statement on Exercise in Cancer Care". This study aimed to describe levels of physical activity, social activities and household duties before, during and after radiotherapy. Results showed that treatment significantly impacted activity levels, with almost half of respondents not back to their usual levels of activity one month following treatment. These patients were more likely to report feelings of anxiety, depression and poor quality of life. Analysis of respondents gave valuable insights into subgroups of patients who may benefit from targeted education and supportive interventions. Despite providing longitudinal data before, during and after treatment in a large cohort of almost 200 participants with a variety of cancer diagnoses, the post-treatment follow-up is brief. Continued monitoring to assess for further changes would provide valuable insight into the impacts and recovery from radiation treatment.

**Reference:** *Cancer Nurs.* 2023 online ahead of print

[Abstract](#)

## Supporting cancer survivors following treatment for non-Hodgkin's and Hodgkin's lymphoma

**Authors:** Spooner AJ et al.

**Summary:** This pilot study implemented a 3-arm randomised controlled trial to assess the feasibility and acceptability of the ENGAGE intervention among lymphoma survivors. Participants were randomly selected to receive either ENGAGE, an educational booklet, or usual care. The ENGAGE group received educational materials and three consultations with a cancer nurse to develop a survivorship care plan. Results showed high participant retention (79%) and completion rates for the ENGAGE intervention, with most participants satisfied with the program. The findings suggested that ENGAGE is feasible and well-received by lymphoma survivors, paving the way for further investigation into its effectiveness and cost-effectiveness in larger trials.

**Comment:** This pilot study presented the feasibility and outcomes of a nurse-led post-treatment intervention (ENGAGE) compared to an education resource and standard care for patients following treatment for lymphoma. In addition to the education resource, participants randomised to the ENGAGE arm took part in three consultations, with a modality determined by the individual to identify post-treatment issues and goals. The intervention arm demonstrated a high retention, with almost 80% of participants completing all three consultations. The authors noted that many eligible participants elected not to participate in the study, wishing to move on from their cancer experience or not seeing the benefit of post-treatment care. This further highlights the individual experience of cancer and how patients must be offered options to personalise their follow-up experience. Although a small cohort, these results add to the existing literature, demonstrating nurses' role in providing post-treatment support.

**Reference:** *Semin Oncol Nurs.* 2024;40:151592

[Abstract](#)



### Expert commentary by Bronwyn Jennings

Bronwyn Jennings is the Gynae Oncology Clinical Nurse Consultant at Mater Hospital Brisbane, in Brisbane, Australia. She is a member of the Cancer Nurses Society of Australia (CNSA) and chairs the Gynaecology Specialist Practice Network. Bronwyn is also a member of the Australian and New Zealand Gynaecological Oncology Group (ANZGOG) and the ANZGOG Endometrial Cancer (EDEN) Research Initiative. Her main research interests include patient reported outcome measures, post-treatment care and nurse-led models of care.



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## The effect of a fatigue self-management program based on individual and family self-management theory in cancer patients

**Authors:** Karakuş Z & Özer Z.

**Summary:** In this single-blind experimental study involving 94 advanced cancer patients, a Fatigue Self-Management Program was implemented for the intervention group, while the control group received routine care only. Based on Individual and Family Self-Management Theory, the intervention included face-to-face and tele-monitoring sessions. Results showed a significant reduction in fatigue levels and improved well-being in the intervention group compared to controls. While daily living activities did not significantly improve, participants in the intervention group reported lower depression and anxiety levels and higher energy and overall well-being scores. These findings suggest that the Fatigue Self-Management Program effectively addresses fatigue and enhances well-being in cancer patients, highlighting its potential in holistic cancer care.

**Comment:** Cancer-related fatigue is a common and persistent side effect of cancer and its treatments. This study evaluated the effect of the Fatigue Self-Management Program across several tumour streams. Conducted as a single-blinded randomised control trial, it involved 94 participants who were divided into an experimental group receiving the self-management program and a control group receiving routine care. The program included two face-to-face and two telephone sessions, focusing on managing fatigue, enhancing daily activities, and improving well-being. Information was given via visual presentations as well as education booklets. Underpinning the intervention was the Individual and Family Self-Management Theory, and as a result, spouses and family members also attended the sessions. Results demonstrated statistical significance in fatigue and quality of life scores but did not impact daily living activity scores. Although a positive result, this study suffered a high dropout rate of almost 35% due to a number of factors, including prolonged inpatient stay, deterioration or death and more studies with larger cohorts are required.

**Reference:** *Eur J Oncol Nurs.* 2024;69:102

[Abstract](#)

## The effects of nurse-led supportive care program on quality of life in women with breast cancer receiving adjuvant chemotherapy

**Authors:** Kucuk BY et al.

**Summary:** This parallel-group randomised controlled pilot study aimed to assess the impact of a nurse-led supportive care program on the quality of life of women undergoing adjuvant chemotherapy for breast cancer. Forty-two participants were randomly assigned to either the intervention or control group. The intervention group received an 8-week nurse-led program, combining face-to-face and phone sessions, while the control group received routine care only. Results indicated a significant improvement in global health and functional status scores for the intervention group compared to controls. Additionally, participants in the intervention group reported lower symptom status scores. This study concludes that the nurse-led supportive care program effectively enhances the quality of life for women with breast cancer undergoing adjuvant chemotherapy.

**Comment:** Evidence continues to grow regarding nurse-led supportive interventions for patients with cancer. In this study, women undergoing adjuvant chemotherapy for breast cancer were randomised to receive a nurse-led supportive care program or usual care. The intervention consisted of an 8-week program of both face-to-face and phone consultations designed to address the physical, psychological and social issues encountered during treatment. Results showed a statistically significant difference in the intervention group's global health status and functional status scores compared to the usual care cohort. Despite these positive results, it is unclear how much of the effect was related to the nurse-led intervention and how much was related to the informational content provided. As a finite resource, cancer nurses must use reproducible resources and accessible formats to maximise their reach to as many patients as possible.

**Reference:** *Semin Oncol Nurs.* 2024;40:151609

[Abstract](#)

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