



Contents lists available at ScienceDirect

## Seminars in Oncology Nursing

journal homepage: <https://www.journals.elsevier.com/seminars-in-oncology-nursing>

## Research

## Cancer Nurses' Voices and Recommendations to Address Workforce Challenges: A Qualitative Analysis

Natalie Bradford<sup>a,\*</sup>, Deborah Kirk<sup>b</sup>, Karen Taylor<sup>c</sup>, Natalie Williams<sup>d</sup>, Gemma McErlean<sup>e</sup>, Olivia Cook<sup>f</sup>, Lucy Gent<sup>g</sup>, Leanne Monterosso<sup>h</sup>, Zerina Lokmic-Tomkins<sup>i</sup>, Xiomara Skrabal Ross<sup>a</sup>, Erin Pitt<sup>a</sup>, Jemma Still<sup>h</sup>, Elizabeth Moore<sup>j</sup>, on behalf of the CNSA

<sup>a</sup> Cancer and Palliative Care Outcomes Centre and School of Nursing, Queensland University of Technology, Queensland, Australia<sup>b</sup> Latrobe University, Victoria, Australia<sup>c</sup> Cancer Network Western Australia, Perth, Western Australia, Australia<sup>d</sup> King Edward Memorial Hospital, Perth, WA, Australia Cancer Network Western Australia, Perth, Western Australia, Australia<sup>e</sup> School of Nursing, University of Wollongong, New South Wales, Australia<sup>f</sup> McGrath Foundation – Level 1, New South Wales, Australia<sup>g</sup> Sir Charles Gairdner Osborne Park Hospitals Health Care Group, Western Australia, Australia<sup>h</sup> Notre Dame University, Western Australia, Australia<sup>i</sup> School of Public Health and Preventive Medicine, Monash University, Victoria, Australia<sup>j</sup> Monash Nursing and Midwifery, Monash University, Victoria, Australia

## ARTICLE INFO

## Key Words:

Workforce

Workload

Nurse

Oncology

Hematology

Cancer

Personal satisfaction

Burnout

## ABSTRACT

**Objectives:** Amidst the fulfilment of making a positive impact on patients' lives, cancer nurses also contend with high workloads, limited resources, and barriers to career advancement. Understanding the perceptions of cancer nurses is essential in addressing these challenges and fostering an environment that promotes both professional satisfaction and optimal patient care.

Our aim was to explore Australian cancer nurses' experiences and perspectives of workforce challenges and their proposed solutions to address them.

**Methods:** The Cancer Nurses Society Australia workforce cross-sectional survey was distributed online in 2022 through professional networks and social media. Free text responses to open-ended questions were analyzed using qualitative content analysis and inductive processes.

**Results:** Responses from 601 cancer nurses highlight the intricate interplay between rewards and obstacles experienced by the profession and identify key areas for improvement. Positive and negative quotes highlight the passion of cancer nurses which were summarized into themes and subthemes:

1) *Finding fulfilment while struggling against the tide.* While feeling undervalued and facing workload pressures, burnout and limited opportunities for career progression, nurses express love for their jobs, finding it rewarding yet emotionally challenging.

2) *Grassroots solutions versus organizational inertia.* Proposed solutions included addressing nurse-to-patient ratios, proactive succession planning, more specific education, dedicated time for learning, and mentorship and career development programs. Perceived barriers to initiatives included lethargic management and resistance to change. Networking opportunities, appropriate remuneration, and interdisciplinary teamwork with an appreciation of individual expertise are desired.

**Conclusions:** Our findings give a voice to the cancer nurses of Australia. Nurses identified a range of solutions to address workforce challenges.

**Implications for nursing practice:** Addressing the systemic issues that contribute to high workload and impede nurses' well-being and their recognition, and promoting policies to support professional growth will increase satisfaction, enhance patient care outcomes, and contribute to a sustainable workforce.

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\* Address correspondence to: Natalie Bradford, Cancer and Palliative Care Outcomes Centre at Centre for Children's Health Research, Queensland University of Technology, 62 Graham St, South Brisbane, South Brisbane, 4101, Australia  
E-mail address: [natalie.bradford@qut.edu.au](mailto:natalie.bradford@qut.edu.au) (N. Bradford).

The world entered the COVID-19 pandemic with a shortage of 6 million nurses. Additionally, four million of the current nursing workforce are expected to retire by 2030<sup>1</sup> intensifying the pressure on health systems worldwide. This strain is particularly evident in

### Layperson Summary

#### What we investigated and why

Cancer nurses are essential for patient care, but they face challenges. We wanted to learn about their experiences and how they deal with work issues.

#### Our we did our research

We surveyed 601 cancer nurses across the country. We looked at their answers to three open-ended questions using “qualitative content analysis.”

#### What we have found

Despite feeling undervalued and having heavy workloads, cancer nurses love their jobs. They find their work rewarding but also emotionally tough. We found solutions like improving nurse-to-patient ratios, planning for the future, and offering education and mentorship programs. Challenges include resistance to change and organizational barriers.

#### What It means

Our study shows that nursing has both rewards and obstacles. If we use the proposed solutions, nurses will be happier, and patients will benefit too.

field within the next 10 years, which was significantly correlated with job satisfaction.<sup>14</sup> Higher job satisfaction scores were associated with career progression and development opportunities, adequate peer support and a clearly defined scope of practice. Lower job satisfaction scores were associated with poor perceived nursing leadership and insufficient resources to provide quality care.<sup>8</sup> We also collected free text responses to understanding the challenges and solutions that cancer nurses themselves perceived as valuable to consider when developing interventions and initiatives.

### Aims

This research aimed to analyze the free text responses from the nationwide survey, and to explore Australian cancer nurses' experiences and perspectives of job satisfaction, opportunities, initiatives and suggestions for improvement of the workforce.

### Methods

#### Study Design

This was a qualitative content analysis of free-text cross-sectional survey responses from Australian cancer nurses.

#### Study Sample and Setting

The survey was distributed through the Cancer Nurses Society of Australia (CNSA) membership and via social media between October 2021 and February 2022. Nurses who self-identified as a cancer nurse were eligible to participate in the anonymous online survey.

#### Context and Survey Development

The broader 68-item survey was informed by relevant literature and developed to capture data regarding work culture and environments, job satisfaction, education, qualifications, role, specialty area and usual work activities as well as demographic characteristics. Quantitative findings related to these topics are reported elsewhere including description of the advanced practice cancer nurse roles in Australia.<sup>8,14</sup> For context, classifications of nurse roles in Australian and the education required are provided in Supplementary Table 1. Within the online survey, free text responses were elicited for the following three open-ended survey items:

- 1) Please comment on your job satisfaction;
- 2) What opportunities or initiatives would you like to see developed to support the cancer nursing workforce in Australia?
- 3) What suggestions do you have for improvement of the cancer nursing workforce in your workplace?

The survey was developed by members of the CNSA Research Standing Committee, piloted among a sample of CNSA members and the wording was revised based on feedback. The survey was then delivered electronically through a survey link via REDCap.

#### Data Analysis

The demographic characteristics of those who provided responses to opened questions were descriptively summarized. Free text responses from the three items were collated in a Microsoft Excel spreadsheet and imported into NVivo software (release 1.6.1[1137]) for analysis. Data were analyzed using qualitative content analysis methods with an inductive approach considering the study aims of exploring job satisfaction, opportunities, initiatives and suggestions for workplace improvement.<sup>15</sup> While the aims of the study guided the examination of the data,<sup>16</sup> themes were generated from the data,

the cancer nurse workforce, exacerbated by population growth, low graduate numbers of nurses choosing to work in cancer, and poor staff retention.<sup>2</sup> Additionally, the evolving complexity of cancer therapy challenges the workforce with escalating demands and competing priorities.<sup>3</sup> Cancer nursing is a highly specialized field of practice, dependent upon a robust, skilled, experienced and competent workforce to deliver cancer care.<sup>4,5</sup> Urgent calls from national and international nursing organizations emphasize the need to invest in education, jobs, and nursing leadership to empower nurses in their role in cancer control.<sup>6</sup>

Listening to nurses' experiences and contributors to job satisfaction is pivotal to understanding workforce strain. Previous studies reported diverse factors that contribute to cancer nurses' job satisfaction ranging from organizational factors such as scope of practice,<sup>7</sup> career progression opportunities and workload,<sup>8</sup> to interpersonal dynamics including collaborative interdisciplinary practice and relationships with patients.<sup>9,10</sup> Despite cancer nurses' critical role in providing quality care to patients with cancer, a recent systematic review highlighted job satisfaction was an under-investigated area<sup>11</sup> and paramount to address to ensure recruitment and retention of nurses to the field. Moreover, a meta-analysis with a cumulative sample of 2,509 cancer nurses identified a high prevalence of burnout (63%) and secondary traumatic stress (67%) emphasizing they are and emotionally exhausted.<sup>12</sup>

Key cancer nursing workforce challenges include adequate training, remuneration, incorporating technological advances and collaborative practice issues.<sup>5</sup> The absence of appropriate systemic and structural responses to address these issues, coupled with long exposure to these pressures, compromises cancer nurses' physical and mental health and leads to disengagement and leaving the health sector.<sup>13</sup> This is particularly concerning among senior staff who possess valuable knowledge and experience essential for maintaining safe practice and training junior staff.<sup>13</sup> The implementation of evidence-based interventions and policy initiatives is imperative to address these challenges and alleviate the workforce shortages, preserving the well-being of cancer nurses and sustaining safe clinical practice.

We previously reported our findings from a nationwide cross-sectional survey of 930 Australian nurses, identifying a highly skilled workforce with 80% with more than 10 years cancer nursing experience and 70% holding postgraduate qualifications.<sup>8,14</sup> However, 88% report a high workload and 58% signaled an intention to leave the

with no pre-determined codes and the themes were present in, and closely linked, with the data.<sup>17</sup> Data were iteratively coded by two experienced qualitative researchers (XS, EP) with PhD qualifications. XS is a psychologist working in cancer service research and EP is a health services researcher working in cancer research. Any discrepancies between coding were resolved through discussion and consensus between the researchers. This approach enhanced the rigor, credibility and trustworthiness of the findings, ensuring the themes reflected the nuances and complexities of the data.<sup>18</sup> The codes were then grouped into categories and through discussion, themes and subthemes were developed. The findings are presented in a narrative form, with supporting verbatim quotes from the coded survey responses.

### Ethical Considerations

The anonymous study was approved by the Monash University Human Research Ethics Committee (20/9/2021 Project ID: 30474) and the Queensland University of Technology Research Governance and Integrity (22/11/2022 Project ID: 6544). Completion of the online survey implied consent to participate.

## Results

### Participant Characteristics

Free text comments included in this analysis were received from 601 cancer nurses. The majority identified as female (93%), were aged over 45 years (56%), and had over 10 years of nursing experience (84%). Most (60%) held postgraduate qualifications and provided clinical care to patients (86%) with 66% reporting high satisfaction with their job. Characteristics of respondents are presented in Table 1. Quotes are provided with details according to the following Key:

ID = unique Study ID

Age = Age category in years

State: QLD = Queensland, NSW = New South Wales, VIC = Victoria, TAS = Tasmania, WA = Western Australia, SA = South Australia  
JS = Job Satisfaction score (0-100, higher score = more satisfied)

### Overview of Themes

Findings were organized into two overarching themes; Finding fulfilment while struggling against the tide; and Proposed solutions versus organizational inertia. Evident within these themes were eight subthemes. All themes and subthemes had examples of cancer nurses' experiences and perspectives of workforce challenges and solutions and the impacts on the quality of nursing care and burnout. These are summarized in Fig. The themes and subthemes are presented in turn in the following, supported by exemplar quotes.

#### Finding Fulfillment While Struggling Against the Tide

This overarching theme encompassed the juxtaposition nurses felt between the love for the job challenging aspects of cancer nursing. Nurses expressed dedication and passion for their work, but also felt undervalued with high workload pressure, burnout and limited opportunities for career progressions. Three subthemes are presented describing experiences and perspectives on 1) job satisfaction and team culture, 2) impact of COVID-19, and 3) unsafe ratios, inexperienced staff and workload.

**Job Satisfaction and Team Culture.** Many cancer nurses reported being satisfied with their job and some attributed this to the challenging yet rewarding nature of the work and role. Nurses specifically commented on their enjoyment and satisfaction in supporting and

**Table 1**  
Characteristics of Respondents

Age group	n = 601	%
19-24 y	5	1%
25-29 y	33	5%
30-34 y	67	11%
35-39 y	87	14%
40-44 y	69	11%
45-49 y	73	12%
50-54 y	93	15%
55-59 y	102	17%
60-64 y	58	10%
65+ y	14	2%
Sex	n = 601	
Female	560	93%
Male	32	5%
Non-binary	2	0.3%
Not stated	7	1%
Years of nursing experience	n = 599	
> 5 y	35	6%
5-9 y	65	11%
10-19 y	178	30%
20+ y	321	54%
Highest qualifications	n = 597	
Hospital general certificate	14	2%
Bachelor degree	138	23%
Post-registration certificate or diploma	87	15%
Postgraduate	358	60%
Employment type	n = 598	
Casual	15	3%
Part-time	332	56%
Full time	251	42%
Provides clinical care to patients	n = 595	
Yes	509	86%
No	86	14%
Level of job satisfaction	n = 568	
Low	103	18%
Moderate	89	16%
High	250	44%
Very high	126	22%

providing care to patients in their cancer care journey and their belief that through their work, they make a positive impact. For example, one respondent stated:

"I work in a fabulous multidisciplinary/interdisciplinary team [and] have autonomy and respect in an amazing work environment with tumour-specific cancer care coordinators. Love the AYA [adolescent and young adult] patient cohort. Can see the improved patient outcomes with the MDT [multi-disciplinary team] support offered and provided to the patient" (ID26, WA, Age 50-54yrs, JS 68/100).

Others highlighted satisfaction with their work environment and the various healthcare teams they work with, and some relished the role they played in supporting fellow staff and colleagues, for example:

"The team environment that I work in provides great satisfaction. More importantly, the difference to patient's lives is the largest component for satisfaction in my work" (ID30, QLD, Age 35-39yrs, JS 96/100).

Some respondents expressed their satisfaction with their jobs in general while acknowledging a diversity of challenges and frustrations including resources and career opportunities:

"I am satisfied in my role but dissatisfied with the resources to do my job well and also the limited resources to cover holidays, sickness and the number of patients I care for" (ID88, QLD, Age 50-54yrs, JS 78/100).

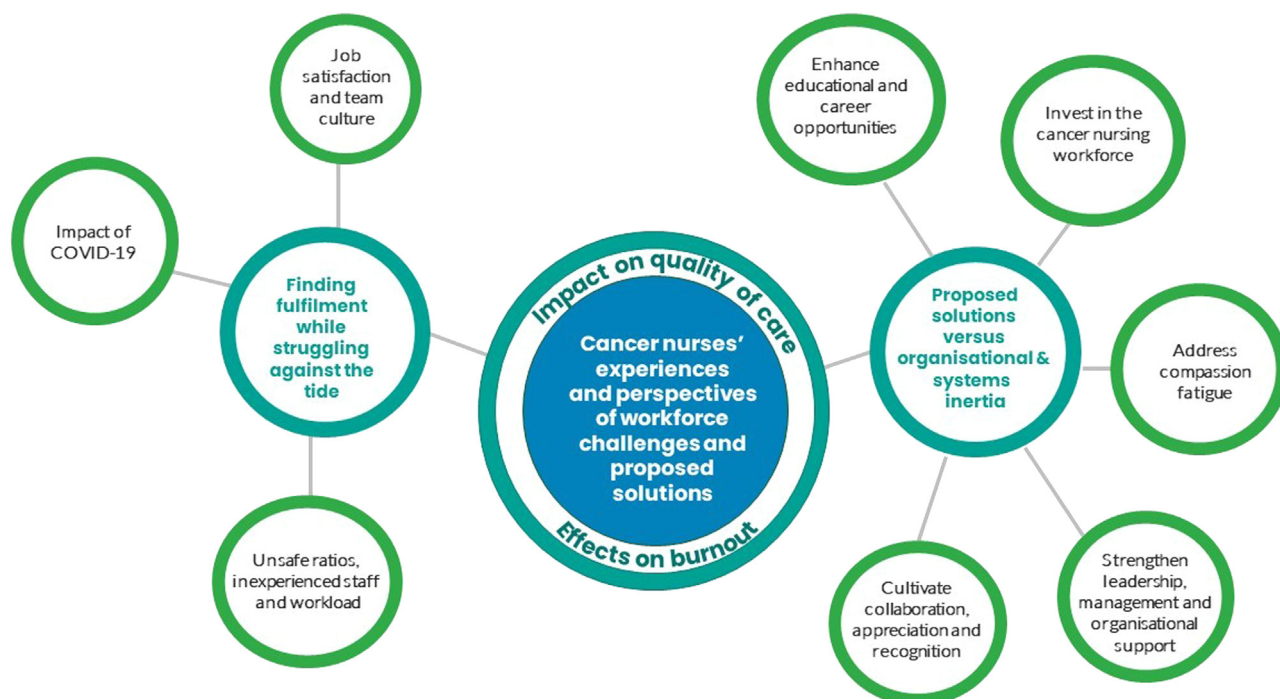


Fig. Themes and sub-themes

"I am satisfied with my current job but there are limited pathways and opportunities for career progression" (ID28, TAS, 40-44yrs, JS 77/100).

**Impact of COVID-19.** Respondents commented on the detrimental effects the COVID-19 pandemic had on their job satisfaction, and their ability to deliver quality care. Specific factors related to the additional pressures the COVID-19 pandemic placed on cancer services were mentioned. These included exhaustion and stress amongst the teams, the redirection of staff and other resources from cancer nursing to meet surging COVID-19 healthcare demands, nurses leaving the workforce, and the inability to provide the required level of care due to increased workload pressures.

"I'm tired all the time. COVID-19 has made our patients suffer more than usual, for some, what little time they have has been even harder for them. I feel I have at times not supported them enough. It dulls my satisfaction with my work" (ID174, VIC, 60-64yrs, JS70/100).

"Significant increase in service demand without adequate remuneration, plus added pressures of COVID and lockdown has certainly affected job satisfaction" (ID86, VIC, 35-39 yrs, JS70/100).

"Love my field of nursing, just difficult to manage the stressors of COVID and the impact it causes on my fellow nursing colleagues" (ID154, VIC, 35-39 yrs, JS 80/100).

Beyond the effects of COVID-19, nurses wellbeing was also impacted by workload as described in the following.

**Unsafe Ratios, Inexperienced Staff and High Workload.** Respondents expressed dissatisfaction with the excessive number of nurse-patient ratios, resulting in heavy workloads managing acute and complex patients, and compromising the provision of comprehensive, quality patient care. For example, respondents reported not being able to dedicate adequate time to address patients' concerns, discuss their

treatments, and provide the care required for those in need of high levels of support. This created frustration and distress in nursing staff.

Respondents also expressed that reduced staff ratios were unsafe and posed a risk to patients, increasing the chance of medication errors and limiting thorough assessment of treatment-related symptoms and side effects. The workload of experienced nurses and the risks of low-quality care were exacerbated by the high number of junior staff who lacked experience, or insufficiently trained staff unable to competently support patients.

"The unsafe ratios and workload at my workplace means I leave work some days wanting to quit because I am terrified of letting a patient slip and feeling responsible for an adverse event. Our patients can be extremely high acuity and they will still give us 10-12 patient load" (ID291, QLD, 30-34yrs, JS 68/100).

"Heavy acute workloads, insufficiently trained staff does result in job dissatisfaction as we can't always deliver the care each patient requires" (ID544, QLD, 55-59yrs, JS 77/100).

Staff shortages and workloads with unmanageable case numbers were reported to contribute fatigue and burnout. Respondents reported feeling burnt out from working frequent overtime which affected their physical and psychological well-being. Burnout was also attributed to insufficient time for breaks during their rosters and restricted use of their recreational leave due to the unavailability of staff to cover leave. Nurses also reported an additional psychological and emotional burden of having to provide care, especially for high acuity patients, without reprieve.

"Cancer care acuity is very underrated. What other clinical area has high acuity, complexity of care, with complex psychological needs in every bed? In one shift you can have a dying patient, newly diagnosed patient, febrile neutropenia, patient starting active treatment, relapsed disease patient and all the emotions that go with them and their family." (ID577, NSW, 50-54yrs, JS 51/100)



"I am burning out, working overtime, and there is very rarely anyone available to cover for me, so I am only able to take approximately 5-6 days annual leave each year. This certainly interferes with my job satisfaction" (ID53, NSW, 30-34 yrs, JS 50/100).

These challenges were reported by nurses across Australia, as well as contributing to burnout, negatively impact the quality of care provided to patients. Solutions were proposed to address these issues and strengthen the cancer nursing workforce.

#### *Proposed Solutions Versus Organizational and Systems Inertia*

Respondents showed a deep understanding of the causes of workforce challenges and offered concrete suggestions to overcome issues. Some respondents, however, also voiced frustration with the "system" which was perceived as complacent and sluggish in its responses to the call to action for workforce reform. The proposed solutions encompass individual development and support needs, broader organizational and systems issues and the overall culture and recognition of cancer nurses within the workplace.

*Enhance Educational and Career Opportunities.* Challenges with accessing education and professional development opportunities were described as directly impacting job satisfaction and career development for many cancer nurses. Cancer nurses highlighted the need for investment in education and career opportunities for nurses at all levels, suggesting a collaborative approach among institutions and providers.

The two main barriers to undertaking educational opportunities identified in the analysis were 1) the lack of access to appropriate educational and professional development offers and 2) the lack of time to attend, which was compounded by high workloads and lack of staff to cover. As reported by respondents:

"Less and less resources and time leading to many challenges in my role. Time is not available to train staff due to heavy workloads getting worse and worse. Job satisfaction has been going down due to this. Staff losing motivation to learn due to fatigue" (ID208, QLD, 35-39 yrs, JS 40/100).

"[I] am limited in what education I am allowed/offered. I would be happier/more motivated to stay in this discipline if my requests for training were met" (ID430, WA, 50-54yrs, JS 68/100 ).

Expanding access to education, training, learning opportunities was frequently cited as a priority by respondents who sought these improvements for their own professional development and that of their workforce to improve job satisfaction and their ability to provide quality patient care.

"To have more access to study opportunities" (ID325, WA, 30-34 yrs, JS 71/100 )

"More learning opportunities – time for staff to learn away from the clinical setting" (ID12, QLD, 45-49yrs, JS 80/100 )

Respondents reported wanting greater access to more cancer nursing-specific education. There were suggestions to ensure the cancer nursing curriculum is integrated into undergraduate university nursing courses, as well as having cancer nursing specialties available in post-graduate courses. Requests were also made for other types of cancer nursing-specific education on topics such as genomics, immunotherapy toxicity assessment and management, and the ability for cancer nurses to develop skills in other cancer nursing specialty areas and keep abreast of the rapidly advancing field.

Aside from specific content topics, cancer nurses suggested the need, generally, for more post-graduate study opportunities as well as opportunities to attend conferences to advance knowledge.

Suggestions were made for increased access to online or recorded training/conferences, as well as the availability of online resources and webinars. Cancer nurses also valued education in the form of short courses, self-directed and free learning opportunities that were readily available and up to date. Comments were made expressing the desire for further study opportunities, such as postgraduate courses to be more accessible and affordable, including through financial assistance and subsidies.

"A much better education program that doesn't stop once nurses are signed off as competent to give chemotherapy. There needs to be an ongoing education program to continue to develop nurses' knowledge. Many nurses, even our clinical nurses (including recent hires) don't have post-grad qualifications in cancer care, and I think this is unbelievable in our current times!" (ID365, QLD, 55-59yrs, JS 20/100 ).

"Opportunities to attend learning such as conferences for the clinical nursing role staff such as chemotherapy nurses" (ID369, NSW, 55-59yrs, JS 75/100 ).

"Educational subsidies as further education and workshops can be quite costly." (ID29).

"Access to affordable postgraduate courses." (ID199, VIC, 55-59yrs, JS 71/100 ).

Clinical supervision was also identified as another key educational and training initiative desired by many within the workforce. While clinical supervision is recognized as an important educational and training initiative by many professionals, it is not universally mandatory across various nursing sectors or settings in Australia.

"More opportunities to have access to clinical placements and preceptorship" (ID146, VIC, 50-54 yrs, JS 59/100).

"Clinical coach/educator who is actively on the ward to support a junior team to learn skills such as administering chemotherapy and learning central line management for patient safety" (ID310 VIC, 50-54yrs, JS 73/100).

"Mandatory clinical supervision for all cancer nurses" (ID358, WA, 60-64yrs, JS 81/100).

Respondents also expressed a need to advocate for dedicated time to participate in educational and professional development activities and support from their managers and organizations to undertake these activities.

"Time is always an issue especially for education, designated time for education and funding of education for staff would be of value" (ID435, QLD, 65-69yrs, JS 99/100).

"Staffing to ensure education can be readily obtained. . . poor staffing won't allow [you] to take leave, [because] the department is left short-staffed" (ID587, VIC, 65-69yrs, JS 65/100).

"Greater support to undertake further study/training in a way that doesn't add workload to day-to-day clinical care – feels like this has to currently be accommodated amongst other work" (ID33, VIC, 30-34yrs, JS 91/100).

"Support from large public hospitals to pursue post-graduate degrees. . . including educational paid days" (ID148, VIC 30-34yrs, JS 94/100).

Respondents also reported a lack of opportunities for career progression in their workplaces. They suggested unclear pathways to career progression led to unequal opportunities for nurses. Opportunities were limited by the inability to find available staff to fill their positions when wanting to move forward to other roles, the small

size of some cancer centers not having opportunities, and the lack of diverse career advancement options for cancer nurses who are not interested in management roles.

"I am currently satisfied with my role, however, there is not much movement for career progression in it so I can't see myself staying in it for more than 5 years" (ID269, QLD, 25-29yrs, JS 85/100).

"Keen to progress in my career – I moved from overseas and it's not always clear how to progress within the hospital I currently work in" (ID361, NSW, 30-34yrs, JS 67/100).

"Would be nice to feel appreciated at times and have equal opportunities like the rest to progress in career" (ID292, QLD, 35/39yrs, JS 71/100).

"No chance for progression in the profession. Opportunities denied saying could not find any experienced staff to replace" (ID 243, WA, 45-49yrs).

Respondents expressed the need for workplaces to implement structured mentorship and buddy programs, with clear objectives, and structured career development plans as initiatives to overcome challenges related to the lack of career progression opportunities in their workplace.

"A structured nursing mentor program with very clearly defined objectives which will assist with career/professional development and advancement" (ID309, VIC, 55-59yrs, JS 95/100).

"Opportunities to buddy up to observe/ learn from colleagues in other specialties" (ID554, QLD, 55-59yrs, JS 77/100).

"We need better career structure and set goals for development from Novice to Expert cancer nurses" (ID594, SA, 40-44yrs, JS 90/100).

"Structured pathways for cancer nurses to advance in their careers, including roles, responsibilities, education and training" (ID456, SA, 40-44yrs, JS 76/100).

Beyond the need for investment in education and training, nurses highlighted the need to increase the number of cancer nurses.

*Invest in the Cancer Nursing Workforce Numbers.* Respondents highlighted the need to attract and train more cancer nurses to address workforce shortages, particularly in advanced practice roles, such as cancer care coordinator and nurse practitioners. The cancer care coordinator role refers to an Advanced Practice Nursing role that is specialized in the delivery and support of cancer care. Commonly in Australia this role is also called a Clinical Nurse Consultant although the specific responsibilities can vary based upon the hospital and healthcare setting. Respondents emphasized the importance of increasing the availability of such specialized roles to ensure adequate staffing levels and addressing the nursing staff-to-patient ratios based on both demands and complexity of care. Additionally, respondents expressed the need to invest in proactive succession planning efforts to make sure that a pipeline of cancer nurses is available and adequately trained before the retirement of senior nurses. These issues are critical to address burnout and sustainability of the workplace.

"Increase in [the number of] care coordinators is needed as most hospitals still have the same number as 15 years ago. The complexity of treatments has increased, and patients are living longer. If we want to keep the care coordinators in place they need to be looked after before they well and truly burn out" (ID294, VIC 60-64yrs, JS 92/100).

"The patient flow of the treatment floor and clinics need to change with the demand of the increased number of patients" (ID84, QLD, 55-59yrs, JS 71/100)

"Succession planning in all cancer centres/wards [is needed] - as the workforce ages there is a need to encourage, entice and attract new staff into cancer nursing with mentorship programs, education opportunities, and fostering a nurturing learning environment" (ID158, WA, 55-59yrs, JS 80/100)

*Address Compassion Fatigue.* Nurses highlighted the need for better support for their mental health and well-being to protect them from burnout. They called for initiatives such as mental health leave days, well-being workshops, and access to counselling specific to their roles. Nurses described that supporting cancer patients has a high emotional and psychological impact, which is further exacerbated by high workload, extended work hours and reduced opportunities to take their recreational leave. However, respondents reported there was a lack of awareness in workplaces about the importance of nurses accessing self-care and mental health support to manage their well-being and prevent or address burnout. Examples of initiatives that respondents would like to see implemented in their workplaces included:

"Something to support our mental health. It is a huge mental load to support our patients through chemotherapy, to listen to their fears, and to watch them cry. We support them to the best of our abilities, but it's often to our detriment. I know I've gone home and cried more times than I care to admit. Something to help guide cancer nurses through emotional fatigue is needed" (ID45, QLD, 30-34yrs, JS 75/100)

"Mental Health leave days [are needed]. Cancer care nurses give so much of themselves to patients, that often they neglect their own mental health. Cracks form when a long-term patient eventually succumbs to disease and the nurses carry that grief. Mental health leave days would be of great benefit when nurses feel that burnout begins" (ID30, QLD, 35-39yrs, JS 96/100)

"Have enough casual staff to be able to cover when you need a holiday due to burnout, compassion fatigue etc. Provide retreats for mental health and well-being" (ID437, NSW, 55-59yrs, JS 80/100)

"A mental health and well-being support structure that goes beyond standard EAPs\* and targets the particular experience of cancer nurses" (ID341, NSW, 30-34yrs, JS 73/100)\* EAPs – Employment Assistance Programs are work based programs offering free and confidential assessment, counselling and follow up by trained psychologist to employees with personal or work-related problems.

Support required for individuals extended to the need to consider broader management and organizational factors.

*Strengthen Nursing Leadership, Management, and Organizational Support.* Respondents expressed discontent with nursing leadership styles, which was experienced as insufficient support from managers and senior roles (e.g., clinical support, workflow support), lack of collaborative team culture, and poor communication with managers (e.g., about work expectations and the need for changes to improve patient care). This had an impact on quality-of-care provision and staff satisfaction and was a reason for leaving their jobs.

"I cannot discuss differences in opinion. When raising a concern, nothing is done about it. Managers don't acknowledge mistakes. Put all responsibility on staff, cannot discuss change" (ID488, NSW, 25-29yrs, JS 23/100).

"Management is junior and have not had much experience and overconfident in their abilities. A lot of pressure is placed on the more senior staff for support" (ID524, SA, 55-59yrs, 77/100).

"Management don't see our patients as high care as they are. So staffing is not taken seriously at that level" (ID597, QLD, 45-49yrs, JS 74/100).

"The culture of collaborative care is dismal and not addressed by the managers" (ID562, WA, 35-39yrs, JS 72/100).

"Very dissatisfied with the nursing leadership and culture of the organisation which has recently led me to resign and move to the private sector" (ID476, QLD, 50-54yrs, JS 15/100).

Nurses expressed a need for improvement in nursing leadership in workplaces, with a more enthusiastic and attentive leadership style that is inclusive, effective, and consistent. Respondents believed nursing management leaders should have cancer experience and should exhibit good communication and consultative practices with their staff. Generally, respondents expressed that there should be more support and understanding of cancer nurses' needs from their managers.

"Develop leaders that can communicate clear expectations to nurses and allow nurses to communicate the same back and ensuring nurses get the support they need" (ID476, QLD, 50-54yrs, JS 15/100)).

"Nurses managing nurses. Managers with cancer experience. As nursing roles develop and become more advanced, we are at a significant disadvantage when managed by allied health etc with no cancer background" (ID469, VIC 35-39yrs, JS 81/100).

"Definitely promote the need and the importance for inclusive leadership and empowerment of each other at all times" (ID410, NSW, 45-49yrs, 62/100).

*Cultivate Collaboration, Appreciation and Recognition of Cancer Nurses.* Respondents emphasized the need to improve the collaboration between nurses and cancer professionals at all levels of the multidisciplinary team to ensure patients receive quality care. Additionally, respondents highlighted the importance of networking with peers and sharing knowledge across institutions to improve learning and collaboration between and across facilities and institutions.

"I would also like to see more interaction between specialties and roles so we are all aware of each other's roles. Maybe some connection between cancer nurses from metro and regional/remote as we face different challenges" (ID403, VIC, 25-29yrs, JS 71/100).

"Would like to see the return of the Cancer Care Coordinator Conferences. They were great platforms for connecting, swapping ideas and experiences and networking opportunities" (ID463, SA, 55-59yrs, JS 80/100).

"Greater awareness of individual roles and broader sharing of knowledge and skill sets between specialty areas" (ID42, VIC, 55-59yrs, JS 80/100).

"It would be useful to continue to improve the representation of nurses in treatment planning and respecting supportive care aspects to care planning and delivery" (ID380, VIC, 50-54yrs, JS 90/100).

"Increased involvement in comprehensive patient treatment and care plans. . .better opportunities in the provision of multidisciplinary care i.e. increased participation in MDT [multidisciplinary team] meetings and morbidity & mortality meetings" (ID28, TAS, 40-44yrs, JS 77/100).

Cancer nurses reported their skills and experience were undervalued, leading to feelings of frustration and dissatisfaction. They called for greater recognition and respect for the specialized nature of their role within the cancer setting:

"I don't feel as though my experience and qualifications are appreciated by my organisation despite my work ethic" (ID470, VIC, 30-34yrs, JS 50/100).

Respondents also reported they were expected to work outside their scope of practice, without appropriate remuneration or recognition. Respondents expressed that the scope of their role was vastly misunderstood, contributing to feelings of frustration towards other nurses, health professionals and the general public.

"Constantly used to fill gaps. Little respect for my experience and knowledge" (ID210, SA, 40-44yrs, JS 9/100).

"Feeling like a number and not valued for the specialized work we do" (ID119, VIC. 40-45yrs, JS 50/100).

"Very poor [job satisfaction] due to culture of the unit between radiation therapists not understanding nurses' scope of practice and role. Often treated as "handmaidens" by radiation therapists and radiation oncologists" (ID156, TAS, 50-59, JS 23/100).

"I am feeling very tired of justifying my role to other agencies, other nurses, and other disciplines within my team. Despite my best efforts my role is poorly understood by others including my own manager and it's exhausting having to justify why I should continue to receive funding to do what I do" (ID44, SA, 30-34yrs, JS 40/100).

Cancer nurses clearly stated their desire for an improved acknowledgement and understanding of cancer nursing roles by other health professionals, management and the organizations in which they worked. Nurses reported they are undervalued compared to other professions they work with, yet their roles are essential to quality cancer care with skills, expertise and knowledge that are not provided by allied health or medical roles. Nurses called for acknowledgement of the essential need of their expertise across the workforce, and the pivotal role this plays in patient outcomes as well as staff well-being. Recognition respect and appreciation are required for the role nurses undertake, particularly in terms of the complexity of care they provide, and subsequently, the specialty skills and expertise they bring to the table. Some respondents also commented on the need for recognition and respect to be extended through higher pay rates and remuneration.

"A better understanding of nurses' roles and responsibilities by other team members. One radiation therapist made the comment do you miss "real nursing" after a busy week of coordinating sick patients to emergency and MET [medical emergency team] calls with no doctor on-site" (ID14, VIC, 45-49yrs, 70/100).

"Value the specialist cancer nurse. Not everyone can do the job we do" (ID565, WA, 30-34yrs, JS 30/100).

"I feel it is a specialized area and should be treated as such. Cancer nurses' pay should reflect this as well. Not everyone can give BCG via an IDC into the bladder or understand the adverse reactions to monitor when giving a patient a vesicant drug" (ID353, QLS, 55-59yrs).

"Financially recognise the expertise expected of cancer nurses" (ID82, VIC, 30-34yrs, JS 84/100).

"I feel the nurses at my workplace are treated as the "plebs"[not belonging to those with knowledge] and the other [disciplines] are considered more important. . .But if anything is going on or

needs sorting the nurses are always the ones everyone goes to. I'm not sure how we would achieve it but a better understanding of what we do and some respect for the nursing role would be a great start." (ID90, VIC, 55-59yrs, JS 79/100).

## Discussion

The analysis was informed by responses from 601 cancer nurses regarding the challenges faced by the workforce and their proposed strategies to address these issues. Findings highlight the complex experience of cancer nurses, revealing both positive and negative impacts on job satisfaction, quality of care and burnout. The themes capture the challenges faced by nurses and the resilience they exhibit.

Specialist cancer nurses in this study reported fulfilment in their work through supporting patients and collaborating with multidisciplinary teams, however, systemic challenges have led to dissatisfaction and burnout. They reported unsafe staffing ratios, and high workloads associated with increasingly complex treatments. Concerns were expressed about the pressures to guide inexperienced cancer nurses without adequate time or resources, leading to an unreasonable burden of responsibility, and a high risk of burnout.

Grassroots solutions proposed by respondents, such as enhancing educational and career opportunities, and offering support for mental health and wellbeing should be considered by healthcare organizations. Systemic inertia and a lack of effective nursing leadership must be addressed to implement these changes and create a supportive environment for cancer nurses. Understanding these issues enables healthcare organizations and policymakers to develop targeted strategies to enhance retention, support career progression, and ensure a stable and skilled workforce in the field of cancer nursing. The proposed solutions are discussed in greater detail in the following.

### *Educational and Career Development Opportunities*

Cancer nurses in this study endorsed the need for investment and support in the development of the junior workforce. They also recommended providing training, professional development and career advancement opportunities to enhance the job satisfaction of experienced nurses. Establishing an environment conducive to professional growth hinges on both nurse leaders and the organization's dedication to embrace the importance of lifelong learning.<sup>19</sup> Establishing a structured career path for nurses beyond management is required, for example, nurse academic roles.<sup>20</sup> Such roles benefit patients and health services as well as career progression, yet unlike equivalent roles in medicine, nurse academic roles are not well integrated with clinical practice.<sup>20</sup>

Australian cancer nurses can access education through membership with CNSA, which provides platforms for networking, information about local and national development in cancer services and Continuing Professional Development (CPD) points through weekly webinars. Online learning resources are also available through CNSA as well as other state-based resources. Formal post-graduate qualifications in cancer nursing at the Graduate Certificate level through to Master of Cancer Nursing are offered by universities across the nation for fee paying students.

Prioritizing career advancement for nurses careers could involve examining existing support systems to identify the potential for collaboration between healthcare institutions, educational providers, and professional organizations to facilitate professional development and create tailored educational initiatives, mentorship programs, sponsorship, and succession planning.<sup>21</sup> Evaluating the outcomes of this investment could include using nurse sensitive indicators and links to safety and quality.

In the UK, the Aspirant Cancer Career and Education Development program is a collaborative initiative aimed at outlining a clear career path in cancer nursing and providing guidance on the necessary knowledge, skills and capabilities.<sup>4</sup> Additionally, the development of networks specifically for young and early-career cancer nurses by cancer societies is important to create a system of support and education.<sup>4</sup> The CNSA provides a platform that supports Community of Practice (CoP) groups where nurses of all ages and levels of experience can meet and share ideas and resources in the presence of experts in the field.<sup>22</sup> These groups play a role in safeguarding the retention of skills and expertise of the senior workforce and provide junior nurses with the opportunity to consolidate learning and develop nursing leadership skills. In addition, a CNSA Research pathway for members new to, and interested in research is commencing in 2024, involving an online course on research fundamentals, connection with peers in the pathway and with mentors working in research.<sup>22</sup>

Despite the availability of these opportunities for Australian cancer nurses, broader investment at a local and systems level is essential. The cancer nurses in this study revealed they face both financial barriers and time constraints when participating in learning opportunities. In Australia, nurses' wages and entitlements (such as extra pay for weekend work, or paid time for educational activities) are regulated by each state or territory, resulting in disparity in the paid professional development opportunities. The Nursing and Midwifery Board of Australia requires nurses to participate in at least 20 hours of professional development annually; however, entitlements do not always meet these requirements.<sup>23</sup> Additionally, paid professional development time often includes mandatory training requirements of facilities, such as hand hygiene, fire training or basic life support, leaving little opportunity for education related to the nurses' interests or specialties.

### *Nursing Shortages*

Nurse shortages are a global concern with the International Council of Nurses (ICN) estimating 13 million nurses will be needed worldwide to address this issue.<sup>24</sup> Australia is projected to need an extra 80,000 FTE nurses by 2035 to meet demand.<sup>25</sup> The nurses in this study emphasized that staff shortages, particularly the lack of experienced cancer nurses, negatively impact job satisfaction and contribute to burnout.

This problem is not unique to Australia; MacMillan Cancer Support in the UK is calling for urgent investment to train 4,000 additional cancer nurses by 2030 to meet UK healthcare demands.<sup>26</sup> In Australia, the government recently announced a program to invest in 100 new federally funded cancer nurses administered by the McGrath Foundation (a non-government organization (NGO)).<sup>27</sup>

Furthermore, funding for new cancer nurses does not address the need to invest in training and development of *existing junior* nurses interested in pursuing a career in cancer care.<sup>27</sup> While the government initiative to invest in cancer nurses is commendable, it is crucial to consider the need for specialization and investment in junior nurses'. Indeed this is vital for the growth and sustainability of the cancer nursing workforce in Australia and globally.<sup>28</sup>

Identifying the appropriate ratio of cancer nurses to patients based on acuity is also essential. There is mounting evidence that supports mandated nurse-patient ratios (with appropriate skill mix) improves patient outcomes including mortality.<sup>29-31</sup> The ICN advocates for having a sufficient number of nurses available at all times across the care continuum, with the right mix of education, skills and experience to ensure that patient care needs are met and that the working environment supports staff to deliver quality care'.<sup>32</sup> Determining optimal staffing levels is complex, and decisions should be informed by evidence and supported by real-time data, agreed metrics, benchmarking and best practice.<sup>32</sup>



### *Moral Distress and Compassion Fatigue*

This research highlighted the pressing need to address moral distress and compassion fatigue to mitigate burnout among the cancer nursing workforce. Moral distress arises when healthcare providers cannot meet workplace responsibilities due to perceived or real constraints.<sup>33</sup> It can manifest as psychological distress, fatigue, or disengagement from the profession and is commonly attributed to conflicts between an individual's ethical beliefs and organizational processes, resources or customs.<sup>33</sup>

The implications of moral distress affect the individuals, patient outcomes, and the organization and healthcare system as a whole. Interventions to address moral distress often focus on teamwork, and decision-making processes supported with open communication and coordination.<sup>34</sup> Addressing power imbalances, team culture and the decision-making hierarchy to reduce conflict between authority and perceived professional obligations are recommended.<sup>34</sup> Additionally, studies in critical care identified building moral resilience through reflective practice coupled with organizational support as useful.<sup>34</sup>

Compassion fatigue is the negative aspect of working in a profession that helps people during a traumatic event in their life.<sup>35</sup> It affects nurses' biopsychosocial and spiritual well-being, impacting their ability to avoid burnout.<sup>35</sup> Programs that teach self-care, well-being and resilience can improve skills in communication and stress management.<sup>35</sup> Many leaders advocate that healthcare organizations provide such training as part of their ongoing educational programs to support nurses and reduce burnout.<sup>35-37</sup>

However, all programs aiming to address moral distress or compassion fatigue must be supported by organizations with the required infrastructure to be meaningful and effective in supporting nurses to implement strategies. For example, communication training may provide individual nurses with important skills but respectful teamwork and a positive work culture are still required.<sup>38</sup> Flexibility in work conditions to enable positive work-life balance can address some issues but needs to be supported in rostering requests.<sup>39</sup>

Additionally, nurses are calling for greater acknowledgment, recognition and understanding from other disciplines of the specialized work cancer nurses do. No patient is treated or cured of cancer by one discipline alone, but nurses in this study reported feeling unappreciated and undervalued for the work they do, adding to emotional fatigue and contributing to perceptions of an unsupportive workplace.<sup>39</sup>

### *Nursing Leadership, Management, and Support*

The cancer nurses in this study reported that nursing leadership style and lack of support from management had an impact on work fulfillment. International literature summarized in a systematic review of 18 studies from diverse nations also highlights the correlation of leadership style on job satisfaction and quality of care.<sup>40</sup> A strength-based leadership approach founded on empowerment, person-centered, relationship-focused principles and innate capability can serve as a roadmap for leaders to improve workplace conditions and thus improve job satisfaction.<sup>41</sup> Indeed, authentic leadership styles, those characterized by transparency, genuineness and honesty, along with favorable work environments are significantly associated with lower job burnout in other nursing specialties.<sup>42</sup> Empowering nurse leaders to recognize the need for change, providing them with practical, evidence-based strategies and supporting them to participate in professional development to build these skills would help to improve their capacity to drive positive change to ensure supportive work environments and collaborative workplace culture.

The discipline-based silos that exist in healthcare focus on individual professional identities with hierarchical structures that undermine teamwork.<sup>43</sup> Greater inter-disciplinary collaboration and

cultivating a culture of mutual respect and recognition for the skills each discipline brings can also improve workplace culture. This can be facilitated by including nurses in decision-making, establishing interdisciplinary communication channels, empowering staff to manage conflict, and agreeing on a team charter of values for interdisciplinary practice.<sup>43,44</sup>

### *Strengths and Limitations*

The strength of this study lies partly in the broad scope and large number of cancer nurse participants from across Australia. The diversity in their geographical locations, age range, experience level, and qualifications provided a comprehensive insight into a wide range of perspectives. The study also had limitations, as not all participants answered all questions, therefore self-selection bias could have reflected the thoughts of those who are more motivated and passionate, whilst overlooking the insights of those feeling disaffected. Additionally, most respondents were aged 40 years or older and had significant cancer nursing experience so we may not have adequately heard the perspectives of the nursing workforce with less experience. This demographic skew is likely due to the membership of CNSA, which has similar demographic characteristics, although significant efforts are being made to attract younger nurses to the Society.

### *Recommendations for Further Research*

This study should be repeated within the next five years to understand how the cancer nursing workforce has changed, whether education providers are offering more specialized education and if reform has occurred in the workplace setting. For example, studies could examine how cancer nurse-patient ratios in Australia can be optimized using nurse-sensitive patient outcomes. Further research into whether COVID-19 had a tsunami effect on late-stage diagnosis and if this has impacted workload and nursing care for those with cancer would also be worthwhile.

### *Implications for Policy and Practice*

Cancer nurses in Australia have identified a range of solutions to address workforce challenges within their specialty. Addressing the systemic issues that contribute to high workload and impede nurses' well-being is imperative. Additionally, emphasis on the recognition of their work and a culture of collaboration and support is just as important for professional growth and satisfaction. Furthermore, promoting policies to support such issues as nurse-to-patient ratios and career progression pathways may help address some of these challenges and lead to improved workplace satisfaction. The CNSA has created "workforce survey digests," distributed to members and available on their website. These concise summaries empower cancer nurses to advocate for their needs and inform policy recommendations and are available on the CNSA website.

### *Conclusions*

This study gave voice to cancer nurses in Australia regarding barriers and facilitators in workplace satisfaction providing data to advocate for change. Overall, the finding suggests a need for strategic reforms in healthcare organizations to address the challenges faced by cancer nurses. This included enhancing support systems, providing ongoing education and training, and recognizing the specialist roles of cancer nurses. Future research should explore the implementation and impact of these proposed changes on nursing care and patient outcomes. It highlighted factors that impact the profession including job fulfillment, the need for organizational change, and the recognition of the individual. The responses proposed tangible solutions in four areas to address workforce challenges including: 1)

enhance educational and career and opportunities, 2) invest in the workforce, 3) address compassion fatigue, and 4) strengthen nursing leadership, management and support. To operationalize these solutions collaboration between healthcare institutions, educational providers, professional organizations and the cancer nursing workforce is imperative. Additionally, ongoing research to understand the changing needs of the cancer nurse would help inform future education agendas and development opportunities, as well as policy reform in the workplace.

## Funding

Funding was provided by the CNSA for this study.

## Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Natalie Bradford reports financial support was provided by Cancer Nurses Society Australia. Deborah Kirk and Gemma McErlean report a relationship with Cancer Nurses Society Australia that includes: board membership. Authors are members of Cancer Nurses Society Australia. All authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## CRediT authorship contribution statement

**Natalie Bradford:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation. **Deborah Kirk:** Writing – review & editing, Writing – original draft. **Karen Taylor:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Data curation. **Natalie Williams:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Data curation. **Gemma McErlean:** Writing – review & editing, Writing – original draft. **Olivia Cook:** Writing – review & editing, Methodology. **Lucy Gent:** Conceptualization. **Leanne Monterosso:** Writing – review & editing, Methodology. **Zerina Lokmic-Tomkins:** Writing – review & editing, Methodology, Investigation. **Xiomara Skrabal Ross:** Writing – original draft, Formal analysis. **Erin Pitt:** Formal analysis. **Jemma Still:** Resources, Funding acquisition. **Elizabeth Moore:** Writing – review & editing, Writing – original draft, Project administration, Methodology, Investigation, Data curation.

## Acknowledgments

The authors thank the cancer nurses across Australia who responded to our survey. The authors thank the members of the CNSA Research Standing Committee Sandie McCarthy, Kimberly Alexander and the CNSA Board of Directors for their review and contribution including Meredith Cummins, Anne Mellon, Diane Davey, Sue Schoonbeek, Gabby Vigar and Kate White.

## Supplementary materials

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.soncn.2024.151722.

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