Perspectives of clinician nurses working in a nurse-led research team: Building nurse research capacity

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ABSTRACT

Objective: To explore the perspectives of clinician nurses working as research assistants in a nurse-led research project.

Background: Supporting clinician nurses' exposure to nurse-led research encourages a culture of excellence, innovation and quality improvement and improves health outcomes. In a recent project, clinician nurses were provided an opportunity to gain exposure to nurse-led research by working as research assistants, screening and consenting participants, and collecting data.

Study design and methods: An exploratory qualitative descriptive approach was taken. Eight nurses participated in semi-structured interviews representing an exhaustive sample consisting of all eligible participants. Inductive content analysis was conducted.

Results: Three themes and seven categories were developed: (1) Making a difference to patients (Nurses at the bedside motivated to improve care, Hearing what patients had to say was rewarding); (2) How the role was laid out shaped the experience (Working closely with the research team, Flexibility of the role, Working within the constraints of the clinical setting); and (3) Growing confidence as researchers (Encouraged to do more, Making opportunities and support accessible to ward-based nurses).

Conclusion: This study offers insights into how nurses can be supported to undertake and contribute to nurse-led research. Strategic support and monetary investment are needed to facilitate ongoing and broader strategies to develop the research-active clinician workforce.

Implications for research, policy and practice: Despite the recognised value of research-engaged clinicians, little is known about the existing opportunities and experiences of clinician nurses working in research. Nurses' motivations to engage in this initiative included the project's focus on their clinical specialty and the opportunity to improve patient care. Practical opportunities for clinician nurses to engage in research must be accompanied by systematic supports, including protected time and mentorship, to address known barriers. Strategic approaches to support clinician-led research have the potential to offer wide-spread benefits to the healthcare system.

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What is already known about the topic?
- Clinician nurses often lack skills, confidence and experience to develop and implement nurse-led research.
- Engaging clinician nurses in research improves quality of care, workforce morale and retention, and translation of research to practice. This promotes a culture of excellence, innovation and quality improvement.
- Little is known about what opportunities exist for the development of nurses' research skills in Australia and the experiences of registered nurses working in research projects.

What this paper adds
- Clinician nurses valued opportunities to work as research assistants in nurse-led research.
- The opportunity strengthened their pre-existing interest, consolidated prior learning, and developed knowledge and confidence.
- Nurses expressed a desire for research opportunities, support and resources accessible in their clinical area, to fulfil their research aspirations.

Keywords: Qualitative research; Nurse clinician; Quality improvement; Clinical nursing research; Nursing research; Nursing

OBJECTIVE

To explore perspectives of clinician nurses working as research assistants in a nurse-led research project.

BACKGROUND

Contributing to research is professionally recognised as a component of nursing in Australia.[1] Furthermore, engaging nurses actively in research is a nursing and midwifery workforce priority and it is internationally recognised that the future development of the nursing profession requires leadership in the development of research skills.[2,3] In the recent report titled 'Research and innovation as core functions in transforming the health system', the Australian Academy of Health and Medical Sciences (AAHMS) explains a research-active workforce improves quality of care, workforce morale and retention and translation of research to practice and reduces mortality.[4] It is also recognised that evidence-based healthcare incorporating the implementation of research findings leads to a more cost-efficient healthcare system.[4]

According to AAHMS, health professionals such as nurses may engage in research as either clinician researchers or research-active health professionals. Clinician researchers are health professionals working in both clinical and research practice and are recognised as critical to contributing to the benefits of a research-driven healthcare system in Australia.[4] Furthermore, the Australian College of Nursing (ACN) officially recognise the role of the clinical research nurse as those who deliver clinical research to improve health care outcomes, participant experience and treatment pathways and significant work from the United Kingdom has also supported the value of this role.[5,6] While higher degree by research programs are one formal training avenue for clinical research nurses, it is recognised the career pathway is not yet universally described across Australia.[5]

Research-active health professionals are described by AAHMS as those who are involved in research less formally within their clinical roles.[4] These may include nurses, midwives and allied health professionals, such as those working in clinical practice, who either actively lead research, or participate in other roles, including as research assistants, in quality or practice improvement activities.[4] By doing so, they are fulfilling their professional responsibilities and contributing to research.[1]

Inherent in providing opportunities for clinicians to be involved in research activities is the concept of building research capacity.[7] Research capacity is described as the ability to conduct research activities in a sustainable manner to ensure the improvement of research skills amongst the nursing workforce into the future.[7] It is suggested that nurses working in clinical practice (clinician nurses) can be supported to contribute to quality nursing research through building competence, motivation, infrastructure and collaboration in research activity.[7] In Australia, there are approximately 390,000 registered nurses and midwives. Together, they represent the largest cohort (54%) of the total number of registered health professionals.[8] Investment into the further development of nurse research capacity represents an opportunity with considerable potential benefits because of nurses' proven record of yielding high investment returns through the delivery of quality research outcomes and expertise in evidence implementation.[9]

It is recognised that few clinician nurses are considered to be research-active and studies about this activity are limited.[10] There are known barriers to clinician nurses' involvement in research activity, such as a lack of leadership support and time,[11] and little is known about what opportunities exist for clinician nurses to develop research skills in Australia outside of the formal higher degree by research pathways. While some international and local level researcher training programs exist, in Australia, there is no formal pathway or governing body to support the development of clinician nurses' research skills and training despite being recognised as a key component of their professional work.[4,12]

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Furthermore, little is known about what opportunities exist for the development of clinician nurses' foundational research skills in Australia and their experience working in research projects.[4] One Australian study reported aiming to build the research capacity of clinical nurses through a participatory action research project.[14] Clinical nurse participants reported increased confidence and motivation to pursue further practice improvement ideas.[14] Additionally, a qualitative study from Ireland described the experiences of clinician nurses implementing a nurse-led clinical trial.[15] Focus groups conducted with eighteen nurses revealed clinical research was accessible and achievable in their clinical roles. Interestingly, prior to their involvement in the clinical trial, these nurses did not believe conducting clinical research was within their scope and approached the research with reservations.[15] This suggests there is a need for proactive engagement of nurses in conducting research.

Other literature investigating clinician nurses working in research has primarily focussed on evaluating research capacity, competence and culture, rather than the experience of nurses working in research activities. A scoping review investigated what factors improve research capacity amongst nursing and midwifery academics internationally,[16] however this review did not address nurses or midwives working in the clinical setting. In a scoping review of Australian and New Zealand nurse-led randomised controlled trials, the authors described a small number of nurse-led trials conducted by a limited group of researchers evidencing the opportunity to expand nurse-led research,[17] which could be addressed by improving research capacity amongst clinician nurses.

Barriers to developing research capacity amongst health staff including nurses, however, have been identified including a lack of time and access to resources such as protected time, competing clinical priorities, and a lack of research knowledge, confidence and skills.[18,19] Similar barriers have been reported regarding quality improvement competence. While knowledge and attitudes towards quality improvement competence amongst frontline nurses and leaders is reportedly high, skill proficiency is low, and barriers prevent engagement in these activities.[20] Recommended strategies to improve competence include creating a just culture and building infrastructure to support engagement with quality improvement.[21] Clinician nurses want research engagement opportunities but have difficulty finding them.[22] Despite recommendations to improve engagement amongst clinician nurses, evaluation of strategies to address these barriers is lacking.

To improve research capacity in the nursing and midwifery workforce, it is important to describe and evaluate the experience of clinician nurses working in research activities. During a recent research project at a tertiary hospital in Western Australia, clinician nurses with no required research experience were invited to work as research assistants, screening and consenting participants and collecting data.[23]

It may be challenging for clinicians seeking to work in research to transition from clinical to research roles without having had any prior exposure to working in research activities. This project provided an ideal opportunity to evaluate the experiences of the clinicians working as research assistants to inform needed investment in nurses as a confident, proficient, research-active workforce both within the health service and more broadly.

STUDY DESIGN AND METHODS

OBJECTIVE

This project aimed to explore the perspectives of clinician nurses working as research assistants in a nurse-led research project.

DESIGN

To meet the research objective, an exploratory qualitative descriptive approach was selected to facilitate the description of the range of the clinician nurses' experiences in their own words, inclusive of the contextual factors which shaped their experiences.[24] The consolidated criteria for reporting qualitative research (COREQ) checklist was followed to ensure comprehensive and transparent reporting of results.[25]

PARTICIPANTS & SETTING

The participants were clinician nurses who worked as research assistants for a nurse-led research project in a tertiary hospital in Western Australia.[23] This project was led by a team of nurse investigators who gained funding to pay nurses to work as research assistants, primarily to screen and consent participants and collect data using a survey tool. The nurses were not required to have any previous research experience as the goal was to contribute to the nurse research capacity of the organisation by exposing clinician nurses to nursing research activities. This opportunity was distinct from other research exposure opportunities, such as nurses working as research assistants on research projects led by medical colleagues where the premise of the investigation is medically, rather than nursing focussed.

Participants were invited by email to join in an individual interview, representing purposive sampling.[26] Individual interviews were chosen over focus groups to facilitate ease of attendance by nurses who often have conflicting clinical rosters. Nurses who expressed interest in participating were provided with a participant information and consent form outlining the aim of the project and explaining their participation was voluntary and data would remain confidential. All eight nurses who worked as research assistants on the project chose to participate in an interview, representing an exhaustive sample consisting of all eligible participants.

DATA COLLECTION

Individual interviews, a common data collection method in qualitative descriptive studies, were conducted to explore the clinician nurses' perspectives.[24] Interviews were semi-structured following an interview guide composed of seven open-ended questions (see Supplementary Material). The interview guide was informed by pre-existing literature on this topic.[27] To support improving the research skill capacity of the nursing workforce, one of two independent research assistants conducted each interview with the clinician nurse participants. These female research assistants, including author IO, were graduate nurse midwives in their first year of clinical and research practice, allocated to this project by nurse research leaders in the nursing research department through which they were working in a graduate internship program. Study research assistants received training on interview skills prior to conducting interviews by a nurse midwife researcher (GG) who has seven years' experience in research. The nurse research assistants had not, at the time of interview, worked clinically with any of the research participants. The first interview was conducted as a pilot. As no changes were made to the interview guide following this interview, these data were included in the analysis.

The interviews were conducted between July and October 2022 in a private setting. Only the interviewer and participant were present during each interview. Prior to the interview, each clinician nurse participant confirmed they had read the participant information form and provided informed consent to participate and be audio-recorded. Participants completed a brief demographic survey providing information on past experience and training in research and quality improvement activities along with years of clinical experience.

Each participant was interviewed once with no repeat interviews deemed necessary. All consented to being audio-recorded. No field notes were documented however a verbal debrief was conducted between the interviewer and an experienced nurse researcher at the conclusion of each interview as a means of contextualising the interview. Original transcripts were not returned to participants for validation however results were presented back to participants and were verbally agreed as a true reflection of their experience. Participants were encouraged to contact the research team if they had any further information they wanted to share or clarify. No participants did so. Interviews lasted between seven and sixteen minutes. Data saturation was not discussed as all eight nurses who were eligible participants were included; however, there was repetition evident in the descriptions of participant experiences.

DATA ANALYSIS

Interview recordings were transcribed to support analysis. Consistent with the purpose of the study, inductive content analysis was conducted to explore nurses' individual experiences and inform a broader description of the experience of conducting research.[28] Two members of the research team (IO, GG) coded categories from the interview transcripts, following the steps outlined by Erlingsson and Brysiewicz.[29] Each researcher (IO or GG) independently coded each interview transcript and identified preliminary categories which were then discussed, including any discrepancies, until consensus was reached. Categories and themes were named and defined together, continually referring to the raw data. Themes were formulated to answer the questions of 'why, how, in what way and by what means' as appropriate when conducting inductive content analysis.[29] Figure 1 shows a sample of this process. Themes and categories are presented with supporting quotes in the findings.

Four themes, with 12 sub themes were identified in the data and shown in Figure 1.

Meaning unit	• 'Confidence really just built up from there' (P1)
Condensed meaning unit	• Confidence increased as recruiting increased • Confidence increased with experience
Code	• Confidence • Overall confidence
Category	• Encouraged to do more
Theme	• Growing confidence as researchers

FIGURE 1. SAMPLE OF INDUCTIVE CONTENT ANALYSIS

ETHICAL CONSIDERATIONS

Written consent was provided by all participants prior to interview. All electronic and paper-based data were stored in accordance with the Australian Code for the Responsible Conduct of Research and the National Statement on Ethical Conduct in Human Research.[30,31] This project was reviewed by the Women and Newborn Health Service Human Research Ethics Committee and approved by the Quality Improvement Sub-Committee on 11 March 2022 (approval number 45197).

RESULTS

DEMOGRAPHIC CHARACTERISTICS

Each of the clinician nurses ($n=8$) who were involved in the initial research project agreed to participate in an interview. The nurses held a range of clinical experience, spanning 2 to 51 years in total. All eight clinician nurses had either previous quality improvement (QI) or research experience or training. Previous QI or research experience included working as a research assistant previously ($n=1$, 12.5%) or at the time of the interview ($n=1$, 12.5%). Previous QI training included attending in-service ($n=2$, 25%) or completing a certificate ($n=1$, 12.5%). Participant characteristics are further detailed in Table 1.

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TABLE 1. PARTICIPANT CHARACTERISTICS

Characteristic	Range of years
Clinical experience at the study site	2–35
Total clinical experience	2–51
	n (%)
Previous QI/research experience	5 (70)
Previous QI training	3 (30)

*Ranges have been provided for the first two variables to prevent inadvertent identification of participants from this study

THEMES AND CATEGORIES

Analysis of the data identified three themes and seven categories, shown in Figure 2 and described below. For further description and supporting quotes, see Supplementary Material.

Making a difference to patients	• Nurses at the bedside motivated to improve care • Hearing what patients had to say was rewarding
How the role was laid out shaped the experience	• Working closely with the research team • Flexibility of the role • Working within the constraints of the clinical setting
Growing confidence as researchers	• Encouraged to do more • Accessible opportunities and support for ward-based nurses

FIGURE 2. THEMES AND CATEGORIES

Theme 1: Making a difference to patients

The clinician nurses identified their key motivations for working as research assistants, encapsulated within the categories titled 'Nurses at the bedside motivated to improve care' and 'Hearing what patients had to say was rewarding'.

Category 1.1: Nurses at the bedside motivated to improve care

The clinician nurses were overwhelmingly motivated to work as research assistants by a desire to improve their professional practice and patient outcomes. '*... Being part of something that helps the profession I work in as well as the patients that you work for*' (P1). They acknowledged research and quality improvement as a component of their nursing roles, and key to improving professional practice and patient outcomes. Importantly, the focus of the research project within their chosen specialty provided the nurses with a sense of relevance and purpose. Participant 5 recounted this as a factor that held their interest in the project '*... because it was specific to gynae information and because I work on gynae [gynaecology].*'

Category 1.2: Hearing what patients had to say was rewarding

The clinician nurses enjoyed communicating with patients in an alternate role, whilst acknowledging patient interaction as a core component of their usual nursing roles, '*It's nice to do something from a different role occasionally… I enjoy talking to the patients because that's part of nursing…*' (P3). The research assistant role was described as facilitating meaningful communication without the clinical distractions that occur in their usual clinical roles, '*I quite liked just talking to patients, not doing nursing, you know, your nursing bits and pieces*' (P8). They also highly valued patient opinion, with one nurse explaining '*talking to the patients to find out what their perspective is on that and why... I really thoroughly enjoyed sitting down with them and finding all that out*' (P4).

Evaluating patient experience was a significant contributor to the clinician nurses' motivation to work in a research role. '*It was, like, really applicable to our patients, so it was important to know what they're getting and what they want, and what we could improve on*' (P5). The nurses were conscious of their ethical obligations and patient receptiveness to participating, '*... making sure they are informed before consenting and you know, that letting them know that it's anonymous and won't affect their treatment in any way*' (P1).

Theme 2: How the role was laid out shaped the experience

Clinician nurses discussed aspects of the role which facilitated or hindered their involvement in the project, ultimately shaping their experiences. 'Working closely with the research team', 'The flexibility of the role' and 'The constraints of the clinical setting' were identified as categories impacting their experience.

Category 2.1: Working closely with the research team

Close involvement with the research team was identified as important to the clinician nurses. Participant 8 stated, '*I felt I was well supported by the research team… I knew them and... we work quite closely, and then we could connect, you know, ask... questions…*'. The nurses identified having time with the research team at the beginning of the project was crucial to their understanding and performance of the role: '*[The nurse researcher] ran through how to do the questions... use the iPad and did some practice interviews with patients... that set you up to be able to do it easily on your own*' (P6). The research assistant role was described as '*…very clear what you had to do in it. Yeah, your role was very laid out from the get-go*' (P2). The nurses appreciated having resources such as a script outlining how to approach potential research participants consistently to seek informed consent. They explained it increased their confidence, '*pretty much every shift before I started I would read that script before approaching the patients... made it a lot easier*' (P1). Ongoing communication and the physical presence of the research team in their clinical area resulted in

the nurses feeling informed and supported throughout the project. '*The researcher came up every Thursday and was present... also giving us updates through email*' (P4).

Category 2.2: Flexibility of the role

Flexibility of the role was a significant determinant of whether the clinician nurses chose to take the opportunity to work as research assistants in the project and shaped their experience. Flexibility with rostering times allowed the nurses to partake despite competing priorities, '*…flexibility of the whole thing was one thing that made it easier for me to do it... if it was a thing where I have to take a whole day... I wouldn't be able to do this at all*' (P7). The flexibility to choose where to recruit within three clinical areas was also valued. However, the nurses overwhelmingly reported recruiting solely from their 'home ward' (P8) because, '*I felt easy because I could do the things where I work*' (P8). They also described benefiting from having peer support available when recruiting within their home ward '*...my colleagues were there... on the ward... I could ask some questions so, so it was good*' (P8). In contrast, unfamiliar clinical areas were treated as barriers to the role.

Other impactful flexible aspects of the project included the clinician nurses' attire, and type of survey tool. The nurses found their nursing uniform convenient, whilst simultaneously feeling it confused patients about their role. However, they also found issue with wearing civilian clothing, stating it '*…could be challenging going to the patient's room in my own clothes*' (P8). Using a tablet for digital data collection was popular, increasing the nurses' confidence levels, '*I thought the iPad was nice and easy and looked quite official and it was generally a very easy process to follow with the patients*' (P4); however, having the flexibility to use a paper format was also valued.

Category 2.3: Working within the constraints of the clinical setting

Factors associated with the clinical setting were identified as key to the clinician nurses' experiences, with the ward busyness and patient acuity impacting their ability to recruit. They described the need to choose an appropriate time to approach patients to increase the chances of successful recruitment. One nurse explained, '*like I try to avoid... immediate post ops and pain and delirious patients and stuff like that*' (P7). Another consideration was the patient's environment, as the nurses were conscious of patient privacy and confidentiality. The COVID-19 pandemic was noted as negatively impacting the clinical setting, adding cognitive, emotional and physical demands which left the clinician nurses with little energy for their research role. '*It was quite tiring...with all the changes due to COVID... all these new policies and you are learning a lot in your everyday work; it wasn't just your work routine anymore... just got a bit hard*' (P1).

Theme 3: Growing confidence as researchers

The clinician nurses increased in confidence throughout participation in the project. They described feeling encouraged to engage in future research activities whilst declaring a need for research opportunities and support to be made more accessible to ward-based clinician nurses.

Category 3.1: Encouraged to do more

Working as research assistants created and nurtured interest in research and quality improvement whilst consolidating pre-existing skills. The clinician nurses unanimously described working in the project as a positive experience which increased their confidence as researchers, '*…it has given me more confidence…I have a few skills now to be able to do it again and I actually found it really interesting and, I got something from it*' (P2). The nurses indicated they would participate in a similar role in the future if given the opportunity, particularly if relevant to their home ward. '*…I will do it again… participating in the audit or in the project what's [sic] going on in the ward*' (P5).

Category 3.2: Accessible opportunities and support for ward-based nurses

A lack of accessible support and opportunities was expressed by clinician nurses as a barrier that, prior to this opportunity, prevented them from participating in research and quality improvement. The nurses discussed wanting research opportunities to be disseminated to their clinical areas for ease of access. One nurse explained, '*being more advertised on the ward... I really wanted to get involved... I just didn't know where to start... make it not so hard to find these opportunities*' (P1). Additionally, they desired opportunities which are flexible, with strategies to combat the constraints of working clinically. One nurse suggested, '*protected time... from two until three, have that time to go sit down in front of a computer and work on your projects... that definitely makes it easier*' (P6).

The nurses wanted access to opportunities and resources which expand and consolidate their knowledge and experience, '*...at uni we got to learn a lot about, you know, research projects and practice writing them and QI, but it kind of seemed very abstract process*' (P1). The nurses aptly identified their knowledge gaps, requesting more accessible training to meet future research aspirations. Perceived training needs included research or quality improvement specific skills, as well as general skills, including computing, health informatics and academic writing skills. The nurses also wanted research and quality improvement mentors, stating '*…it's really good to have someone that you can... send an email and meet up with... I think on the ward, you can't always find someone who really can help guide you with a project*' (P6).

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DISCUSSION

This study explored the perspectives of clinician nurses who worked as research assistants in a nurse-led research project. The eight nurses who participated reported they were motivated to conduct this work due to the focus on their specialty, a desire to contribute to their profession and, ultimately, to improve patient care. Involvement nurtured their pre-existing interest in learning about research work and enabled them to consolidate prior learning while gaining knowledge and confidence. Their experiences were described as predominantly positive, facilitated by the support and flexibility provided by the work and supporting team.

These results reflect research from the United States which suggests there is an appetite for clinician nurses to learn more about research and quality improvement, however many nurses are unsatisfied with the opportunities that exist.[22] An integrative review found that engaging nurses in research can be difficult, and many barriers exist.[32] For example, amongst orthopaedic nurses from the United Kingdom, some did not consider research to be a part of their role.[33] Other identified barriers to engagement in research reflect those articulated by nurses in this study such as a lack of knowledge or skills, time to participate, and a lack of access to opportunities, training and experienced research mentors.[11,21,22,34] It could also be considered that the recognised limited volume of nurse clinician-led research may have a down-stream effect where clinician nurses have less exposure to nurses leading research and opportunities to engage in nurse-led research projects.[17]

Contribution to quality improvement and research activities is recognised as a key criterion within both the Australian Registered Nurse Standards for Practice and the International Council of Nurses' Code of Ethics.[1,12] As registered health practitioners, nurses are recognised as professionals for whom participation in research is an integral part of their practice. It is encouraging to see the establishment of the Australasian Nursing and Midwifery Clinical Trials Network in 2020.[35] It is anticipated this network will provide much needed research skill development, training and networking opportunities amongst nurses who work as clinician researchers or research-active nurses.[9,35] Additionally, other specialty nursing societies and colleges have recognised the value of nurse research with the inclusion of a research committee as part of their organisational structure, including the Cancer Nurses Society of Australia and the College of Emergency Nursing Australasia.[36,37]

In their recent report, AAHMS recommends the development of a national strategy and implementation plan to build a clinician researcher workforce with a clear training and career pathway.[4] Eckert et al., echo that targeted supports and investment for nurses are urgently needed to assist in designing and conducting high-quality nurse-led research.[9,17]

In addition, it is recommended that for research-active health professionals, participation in research should be established as a core part of their position descriptions and they should be allocated dedicated time within their paid clinical roles to pursue these activities.[4,9] These recommendations were also reflected by the nurses in this study where suggestions were made to have protected time and access to training and mentors.

Literature describing practical initiatives to engage clinician nurses in quality improvement and research activities are limited, however, there is evidence to suggest that experiential learning, where clinician nurses are exposed to the practical application of research, can increase confidence and motivation to participate.[32] Our study presents a practical example of developing a research project which utilises funding to financially support the engagement of clinician nurses as active members of the research team. During this evaluation of their experience, the nurses shared that despite timely challenges such as the COVID-19 pandemic, they were intrinsically motivated to be involved and saw themselves as best positioned to conduct this research because they were nurses at the bedside and experts in the specialty. Their interest and uptake of the opportunity demonstrated that while nurses may not actively seek work in these roles, if they are presented directly to them, they are motivated to be involved. This strategy of presenting the opportunity directly to the clinician nurses, along with appropriate remuneration, was successful in overcoming some of the barriers to involvement such as heavy clinical workloads and a lack of time.

Our example demonstrates one strategy where clinician nurses can be supported to work as research assistants in a nurse-led research project to boost skills and engagement of clinician nurses in research. Australian cancer nurses recently identified career progression and professional development opportunities as predictors of higher job satisfaction and initiatives such as our example may help to address ongoing challenges with nursing workforce retention.[38] This example could be translated into other settings however, it is essential that system-wide support accompany these initiatives, such as the provision of dedicated mentors, appropriate remuneration, protected time and opportunities to gain skills and experience including funded research training programs.[9]

Opportunities to partner with universities to support the research study ambitions of clinician nurses should also be considered. Incorporating these system-wide support strategies into institutional policy, employment contracts, and enterprise bargaining agreements may assist to promote their future sustainability. One such example, is the implementation of a Graduate Midwifery Research Intern Programme at a tertiary hospital.[39] Evaluation of this initiative demonstrated how research capacity building of clinicians can be achieved with executive support and

investment and have long term benefits of improving the culture of integrating research into clinical healthcare. Another model described in the United Kingdom integrates Embedded Researchers in the clinical setting to generate research and evaluation questions in a co-design model with clinicians and patients.[13] This model is suggested to have multiple benefits such as improving research capacity amongst health professionals, reducing the gap between the translation of evidence to practice and encouraging greater collaboration between academic and clinician driven research.[13] Future research to implement and evaluate innovative strategies such as these examples are needed in Australia to take advantage of the potential for benefits offered by a research active nursing workforce.

The benefits of initiatives for clinician nurses such as these demonstrate advantages, not only to improve workforce retention and job satisfaction but also clinical outcomes. A review of international literature investigating research engagement and healthcare outcomes by Boaz et al. suggested that when clinicians and healthcare organisations are engaged in research, healthcare performance improved.[40] In some studies, this included health outcomes such as reduced mortality and morbidity but most often related to processes of care. There is a need for further research, not only to investigate the capacity of health professionals such as clinician nurses and midwives to engage in research as recommended by AAHMS,[4] but also to demonstrate the advantages of these initiatives for both clinical performance and workforce benefits.

STRENGTHS AND LIMITATIONS

This study represents a practical example of how clinician nurses positively engaged in an opportunity to undertake nurse-led research to learn and apply research skills. A strength of this evaluation is that it addresses a gap for which little published literature currently exists. The short length of the interviews may be considered a limitation along with the small sample size. However, the aim of this study was to provide a foundational understanding to inform further research in this area which is considered appropriate with a qualitative descriptive approach.[24] While the sample size was small, the participants represented all eight nurses who were eligible and was therefore exhaustive for this investigation. Rigour may have been improved by returning interview transcripts to participants for feedback along with documenting field notes after each interview. Using this data to develop a survey to assist in triangulation should be a consideration for future investigation.

CONCLUSION

This study offers insights into how clinician nurses can be supported to undertake and contribute to nurse-led research. Despite challenges associated with clinical demands, the nurses who participated in this study were strongly motivated to contribute to improved patient care and to improve their research skills and knowledge. Strategic support and monetary investment are needed to facilitate ongoing and broader strategies to develop the research-active clinician workforce.

IMPLICATIONS FOR RESEARCH, POLICY AND PRACTICE

Supporting clinician nurses to work in a nurse-led research team offers nurses the opportunity to learn new skills with appropriate training and mentorship and evidence suggests these initiatives have the capacity to improve job satisfaction, translation of research to practice and clinical outcomes. Service leaders and policy makers can benefit from these rewards by establishing sustainable solutions such as including protected time, mentorship, and research internship programs into their strategic plans. Future research should seek to implement and evaluate these strategies for their potential benefits of workforce improvements, job satisfaction and clinical outcomes along with investigation into the research capacity of the Australian nursing workforce.

ACKNOWLEDGEMENTS AND DISCLOSURES

REFERENCES

1. Nursing and Midwifery Board of Australia (NMBA). Registered nurse standards for practice 2016. Available from: https://www.nursingmidwiferyboard.gov.au/Codes-Guidelines-Statements/Professional-standards/registered-nurse-standards-for-practice.aspx.

2 Government of Western Australia Department of Health. Nursing and midwifery in Western Australia: a discussion paper. 2021.

3 World Health Organization (WHO). State of the world's nursing 2020: Investing in education, jobs and leadership. 2020.

4 Australian Academy of Health and Medical Sciences (AAHMS). Research and Innovation as Core Functions in Transforming the Health System: A Vision for the Future of Health in Australia. 2022.

RESEARCH ARTICLES

—

5 Australian College of Nursing (ACN). Clinical Research Nurse (CRN): Australian standards for practice 2022. Available from: https://www.acn.edu.au/wp-content/uploads/clinical-research-nurse-standards.pdf.

6 Whitehouse CL, Smith H. The Whitehouse Report: Review of research nursing and midwifery structures, strategies and sharing of learning across the UK and Ireland in 2017. The Florence Nightingale Foundation; 2018.

7 Chen Q, Sun M, Tang S, Castro AR. Research capacity in nursing: a concept analysis based on a scoping review. *BMJ Open*. 2019;9(11):e032356-e.

8 Australian Institute of Health and Welfare (AIHW). Health workforce 2022. Available from: https://www.aihw.gov.au/reports/workforce/health-workforce.

9 Eckert M, Rickard CM, Forsythe D, Baird K, Finn J, Gilkison A, et al. Harnessing the nursing and midwifery workforce to boost Australia's clinical research impact. *Medi J Aust*. 2022;217(10):514-6.

10 Siedlecki SL, Albert NM. Research-active clinical nurses: against all odds. *J Clin Nursi*. 2017;26(5-6):766-73.

11 O'Hara S, Ackerman MH, Raderstorf T, Kilbridge JF, Melnyk BM. Building and sustaining a culture of innovation in nursing academics, research, policy, and practice: outcomes of the national innovation summit. *J Nurses Prof Dev*. 2022;43:5-11.

12 International Council of Nurses (ICN). The ICN code of ethics for nurses: Revised 2021. 2021. Available from: https://www.icn.ch/sites/default/files/2023-06/ICN_Code-of-Ethics_EN_Web.pdf.

13 Whitehouse CL, Tinkler L, Jackson C, Hall H, Webster J, Hardy S, et al. Embedding research (ER) led by nurses, midwives and allied health professionals (NMAHPs): the NMAHP-ER model. *BMJ Lead*. 2022;6(4):323-6.

14 Alomari A, Wilson V, Lewis J. Action research: A mechanism for active engagement of clinical nurses in a program of research. *Nurs Health Sci*. 2020;22(3):539-47.

15 O'Brien C, Furlong E, Coughlan B, Fox P, Darley A. Building research capacity and culture: Exploring nurses' experience of implementing a nurse-led clinical trial. *J Nurs Manag*. 2022;30(4):1002-10.

16 Grant J, Robinson T, Laver S. Are we there yet? A scoping review of factors that increase academic research capacity in schools of nursing and midwifery. *Nurse Educ Pract*. 2022;63:103355-.

17 Eckert M, Kennedy K, Neylon K, Rickard CM, Keogh S, Gray R, et al. A scoping review of nurse-led randomised controlled trials. *J Clin Nurs*. 2023;32(17-18):5550-61.

18 Frakking T, Craswell A, Clayton A, Waugh J. Evaluation of research capacity and culture of health professionals working with women, children and families at an australian public hospital: a cross sectional observational study. *J Multidiscip Healthc*. 2021;14:2755-66.

19 Morrison L, Johnston B, Cooper M. Mixed methods systematic review: Factors influencing research activity among nurses in clinical practice. *J Clini Nursi*. 2022;31(17-18):2450-64.

20 Tschannen D, Alexander C, Taylor S, Tovar EG, Ghosh B, Zellefrow C, et al. Quality improvement engagement and competence: A comparison between frontline nurses and nurse leaders. *Nurs Outlook*. 2021;69(5):836-47.

21 Alexander C, Tschannen D, Argetsinger D, Hakim H, Milner KA. A qualitative study on barriers and facilitators of quality improvement engagement by frontline nurses and leaders. *J Nurs Manag*. 2022;30(3):694-701.

22 Hagan J. Nurse satisfaction with opportunities to engage in research. *West J Nurs Res*. 2018;40(2):209-21.

23 [BLINDED FOR REVIEW]

24 Willis DG, Sullivan-Bolyai S, Knafl K, Cohen MZ. Distinguishing features and similarities between descriptive phenomenological and qualitative description research. *West J Nurs Res*. 2016;38(9):1185-204.

25 Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349-57.

26 Campbell S, Greenwood M, Prior S, Shearer T, Walkem K, Young S, et al. Purposive sampling: complex or simple? Research case examples. *JRes Nurs*. 2020;25(8):652-61.

27 Liamputtong P. Qualitative research methods. Fifth edition. Docklands, Victoria: Oxford University Press; 2020.

28 Elo S, Kyngäs H. The qualitative content analysis process. *J Adv Nurs*. 2008;62(1):107-15.

29 Erlingsson C, Brysiewicz P. A hands-on guide to doing content analysis. *Afr J Emerg Med*. 2017;7(3):93-9.

30 The National Health and Medical Research Council [NHMRC], The Australian Research Council, Universities Australia. The Australian code for the responsible conduct of research. 2018.

31 The National Health and Medical Research Council (NHMRC), The Australian Research Council, Universities Australia. National Statement on Ethical Conduct in Human Research 2023. Canberra2023.

32 Scala E, Price C, Day J. An integrative review of engaging clinical nurses in nursing research. *J Nurs Scholarsh*. 2016;48(4):423-30.

33 Bench S, Dowie-Baker J-A, Fish P. Orthopaedic nurses' engagement in clinical research; an exploration of ideas, facilitators and challenges. *Int J Orthop Trauma Nurs*. 2019;35:100699.

34 Mulkey MA. Engaging bedside nurse in research and quality improvement. *J Nurses Prof Dev*. 2021;37(3):138-42.

35 Australasian Nursing and Midwifery Clinical Trial Network (ANMCTN). About us: Australasian Nursing and Midwifery Clinical Trial Network 2024. Available from: https://anmctn.com.au/about/.

36 Cancer Nurses Society of Australia. Research Standing Committee 2024. Available from: https://www.cnsa.org.au/ajcn/ajcn-research.

37 College of Emergency Nursing Australasia (CENA). Research 2024. Available from: https://www.cena.org.au/research/research/.

38 Bradford N, Moore E, Taylor K, Cook O, Gent L, Beane T, et al. The cancer nursing workforce in Australia: a national survey exploring determinants of job satisfaction. *BMC Nurs*. 2023;22(1):461-.

39 Hauck YL, Lewis L, Bayes S, Keyes L. Research capacity building in midwifery: Case study of an Australian Graduate Midwifery Research Intern Programme. *Women Birth*. 2015;28(3):259-63.

40 Boaz A, Hanney S, Jones T, Soper B. Does the engagement of clinicians and organisations in research improve healthcare performance: a three-stage review. *BMJ Open*. 2015;5(12):e009415-e.