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Kaitiaki Nursing Research

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Kaitiaki Nursing Research

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Papers in all areas of nursing are welcome. Authors should present original work, or new and original analysis of existing work. Letters to the editor are also published. All articles and manuscripts will be subjected to the same rigorous review process.

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GUEST EDITORIAL: **Merian Litchfield**

Nurses look beyond the health sector crisis through *nursing* research

Merian Litchfield, RN, PhD, *is an academic-at-large, researcher, educator and consultant.*

In the current health sector crisis, various research studies inform those funding and employing nurses about what is needed to immediately boost the workforce. But it is now quite clear that the current ways and systems – and the workforce for them – are not sustainable or fit for purpose. Immediate action without future direction and possibilities in mind merely reinforces the status quo – where the traditionally protected place (roles) of nurses in the services now seem to be heading towards costly burnout.

So, just as urgent as the research for immediate action is the research and scholarship that present the substance of new thinking about health (including ill-health) and health care to address it. Our mahi is to place (re-create) essential nursing at the core of the health service system for the future. How we envisage the significance of nursing, and will act beyond the crisis, is surely a focus for our research: it is our professional responsibility and our political clout. My comment here is about the need for nurses to be scholars as well as practitioners and to undertake *nursing* research.

Our nursing predicament

Recently when I was visiting my family in Ontario, Canada, an item in the daily newspaper made me reflect on our nursing predicament in Aotearoa New Zealand. The heading was as evocative in Canada as any in the media here: "Staff shortage leads to ICU's closing; Strain at [one hospital] highlights continuing crisis in Ontario health care system". And it is the shortage of nurses particularly that feeds the crisis, aggravated by the "fallout from the pandemic". On the surface, the issue is the same in our two countries: the number of nurses essential to maintain service delivery. In Ontario, the solution was to get relevant laws changed, which would remove politicised barriers to employment of nurses and thus fill the gaps.

In Ontario, just as if in Aotearoa, the newspaper reporters took their stance primarily focused on *the workforce*: "services can't keep up with demand for care" because of the shortage. The source of their information was the hospital agency, the employer. The way the issue was construed caught my attention. The journalists reported: "It [the hospital] said . . . we are constantly making adjustments to *support our staff, physicians and patients* during this ongoing health human resource shortage" (emphasis mine). We can assume nurses are incorporated in the frame of *"our staff"*. That is, they are employed into the roles cast by the impersonal hospital body as those *it* requires to achieve its mission; nurses are acquired as a quantified component of a generic *workforce*.

From this vantage point, nurses are among the cogs of the exhausted wheel of health service delivery that must and will be superseded. Because the sector has evolved conventionally around the advancements of medical science and technology (heavily weighted to personal medical care at the expense of population health), the current flow of funds assumes the primacy of the medical and surgical script. We can see that nurses continue to be cast as the assistants of the medical/surgical practitioners: the hegemony of the medical purpose (with its ethos and methodology) in design and delivery of health care. That nursing is a profession with a distinct and vital social purpose for its contribution, whatever the involvement of medical practice (albeit complementary), is not noticed; all are homogenised as the "medical workforce".

Merian Litchfield

Hence the potential for nurses to be free to nurse, or contribute creative analyses and proposals for improving health care, is lost in the efforts to *prove* parity, and argue employment concerns, that might hold the status quo on a highly-charged competitive stage. The direct significance of nursing for health and people's lives – the health of the nation – beyond just sustaining the services as they exist, is neither expected nor even imagined. The distinct and essential contribution of nursing is inevitably missing at the table of health sector review and development. Surely the public have the right to be *nursed* when their health-related circumstances, their suffering, vulnerabilities and lack of knowledge, require it? Surely the availability of nursing is a marker of modern civilised societies?

It is through nursing research and scholarship that nurses can confidently convey the significance and relevance of nursing for the people of Aotearoa.

The critical shortage of nurse numbers to sustain the traditional workforce is recognised as an international trend, and this brings us an overwhelming sense of helplessness and inevitable burnout. But as nurses in Aotearoa, we are very conscious of our particular orientation of the nursing needed to address the complexity of health need and predicaments of our citizens. Irihapeti Ramsden coined the terms Kawa Whakaruruhau and *"cultural safety"* (Ramsden, 1990), identifying our national, cultural approach to the practice of nursing. So whereas the crisis is global on the surface (workforce inadequacy), our historical and cultural roots give us our own way to review, look ahead and show the actual health significance of nursing practice for our own people, as it could be. The crisis and analysis of its causes and implications are contextual. The distinctly relevant statement of social relevance of the nursing profession in Aotearoa, gives us the lens through which to envisage health care beyond the crisis. Research that brings the focus of the lens to health and people's lives can substantiate the potential. This is research addressing the practice of nursing and its significance.

Most importantly, it is nurses *only* who can and must undertake this research concerning nursing practice. Early in the pandemic here in Aotearoa, I read a newspaper item written by GP Dr Cathy Stephenson, explaining what happens to patients admitted to the ICU with COVID-19. In language readily readable for the public, she succinctly outlined the technologically intensive hospital treatment that is the medical prescription. As illustration, an excerpt was: "To be as safe and comfortable as possible, all patients on ventilators are sedated, and are given a muscle relaxant via a drip to ensure they remain drowsy. The ventilator may remain in place for days or weeks if needed, and is then 'weaned down' and stopped if there are signs of recovery". The public are interested and grateful to have such information. But it is nurses who know the intensity and complexity of the nursing that is not mentioned. The continuous nursing engagement with each patient, whānau and family (even if the nurses change) is a coherent practice in itself, not just the performance of protocols and specified tasks and sets of skills ordered for the implementation and success of the medical prescription. What nursing involves – the wisdom of the practice – that has implications for health and lives well beyond that episode of critical clinical care, is what calls for *nursing* research. This requires a particular form of research that is *nursing* research.

Practice and research have social purpose

Nursing research distinguishes nursing as a profession. Practice professions have an agreed, acknowledged social purpose. Clarity of purpose gives practitioners as members of the profession their ethical stance and focuses their knowledge development. In recent times, nurses of Aotearoa, through membership of NZNO, have looked to the past and future and stated professional commitment to Te Tiriti o Waitangi, expressed as manaakitanga, whakawhanaungatanga, rangatiratanga, wairuatanga (Clendon, 2020). This identifies the relational nature of nursing as fundamental to its social purpose: the humanness of expression of cultural safety necessary for nursing for health (in its broadest meaning). Nurses' understanding of these themes shapes their performance of all the technical and prescriptive activities they might include in their practice (Litchfield, 2021). That is, who the nurse is in practice matters . . . experience as a nurse matters . . . as well as the knowledge and skills for competencies.

The stated professional social purpose of nursing is the reference point (at least for the moment) for any nurse engaging in research and writing academic papers intended to inform and explain nursing practice; it is the basis of a sort of contract between the profession and the public to which we all commit to become registered. I argue that such nursing research relevant for the health and lives of the people of Aotearoa, assumes *nursing* methodology: the wisdom of nursing practice. The methodology is participatory in form. The wisdom unfolds through the research process that is as-if practice, and the product is an explanation (Litchfield, 2021). The researcher is practitioner, to be able to explore and substantiate the practice. As for other practice disciplines, the process of research is the process of nursing practice.

The wisdom of practice

Of course nurses as students do delve into other disciplines and select their methodologies through which their research contributes to the extensive body of objectified knowledge: the knowledge available to all in the workforce. This is important. But it is only through *nursing* research by experienced nurses that there can be development of and presentation of the wisdom of practice, and new thinking about how nursing practice might have its significance for health as part of the evolving health-care system. Union arguments for better work conditions gain traction and strength when there is nursing research to explain the direct health significance of nurses in practice, and further when there is scholarly analysis of the political and fiscal implications of practice. *Nursing* research is the coherence of a practice *and* systemic approach to innovation.

Nursing research is future-oriented

Given the rapidly advancing technology in the health sector and the enormous fiscal issues impacting everything about health care as we know it and see it in this crisis, the need for *nursing* research can only increase – alongside the more traditional research projects. It is timely for us as nurses to take our own lead in proposing how health might be addressed, when the number of nurses needed and who does what could be looked at quite differently. Such proposals require at least a group of articulate nurses who can explain and substantiate the significance of their nursing practice for health and people's lives.

This is the challenge for nurses taking up the postgraduate education opportunities available. It is through nursing research and scholarship that nurses can confidently convey the significance and relevance of nursing for the people of Aotearoa – as a distinct practice in the changing context. I believe this future orientation to advancing one's nursing practice brings much needed vitality to our outlook: the recognition of an expanding horizon for career possibilities beyond the bleakness of constraint in the current health sector crisis.

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Note: "Nurse" refers to registered nurses. "Practitioner" refers to all nurses who are professional practitioners of nursing, not limited to those who are certified by the Nursing Council of New Zealand with the title "nurse practitioner" (NP).

NOTICE TO READERS ABOUT THIS JOURNAL'S TITLE: Kaitiaki Nursing Research

THIS JOURNAL is now published under a new, corrected name. Rather than *Kai Tiaki Nursing Research*, it is now *Kaitiaki Nursing Research*. In correcting the name, we are following in the footsteps of our older sister publication, NZNO's main magazine *Kaitiaki Nursing New Zealand*, which joined "Kai" and "tiaki" into one word in its title in February this year.

"Kaitiaki" means "guardian" or "caregiver". "Kai-", as a prefix at the start of a word, means the person who performs an action, while "tiaki" means to guard or care for. However if "kai" is used as a separate word, it means "food".

Commenting in February, NZNO kaiwhakahaere Kerri Nuku said getting the name right was about respecting the mana of tīpuna (ancestors), and how they intended words to be used. "That's why the name change, as small as it is, is mana-enhancing for Māori." NZNO professional and nursing services manager Mairi Lucas said she was happy to see the mistake was finally being fixed.

In her editorial below, *Kaitiaki Nursing Research* editor-in-chief Patricia McClunie-Trust reflects on the meaning of this journal's title – the role this journal has in the guardianship of nurses and nursing knowledge.

FROM THE EDITOR: **Patricia McClunie-Trust**

Kaitiaki – guardianship of nursing knowledge

Tēnā koutou, tēnā koutou, tēnā tatou katoa.

Welcome to the 2022 edition of *Kaitiaki Nursing Research*. The statement in this edition about the corrected name for the journal demonstrates what can happen when cultural representations are appropriated without consent or understanding, however well-meaning. It also raises questions about how nursing might respectfully engage with tikanga, reflecting the traditional knowledge and practices of Māori, to enhance nursing knowledge for the health and well-being of all people in Aotearoa.

This potential for appropriation reminds us that, as nurses, we need to kōrero with Māori as individuals, whānau and iwi to reflect on the most important things that will make a difference for people engaging with nurses in health-care services. We also need to study the findings of research published on the experiences of Māori in the health system to recognise what needs to change to create a more equitable environment for care that safeguards the cultural values and beliefs of health consumers (Graham & Masters-Awatere, 2020; Palmer et al., 2019). We should also not assume that what we are doing in our efforts to be culturally safe or responsive is right, without engaging in conversations with clients, whānau and colleagues. It is important for nurses to recognise that all people they encounter in health-care contexts have their own unique understanding of cultural knowledge that is relevant to their circumstances and their interactions with nurses (Tipa, 2021).

Kōrero needed on kaitiakitanga

From a Māori worldview, kaitiakitanga represents values and practices involving guardianship (NZNO, 2019) and conservation of the environment and its relationship to the health of communities (Royal, 2007). Royal identifies the role of kaitiaki as a person or group that carries out the role of guardian or conserver. So what does this idea of guardianship mean for *Kaitiaki Nursing Research*? This journal has an important role in disseminating research that represents the central and unique role of nursing's contribution across the whole range of health-care services in Aotearoa New Zealand. But we need to kōrero with our nursing whānau across the whole spectrum of nursing roles to imagine how this journal might fully engage in kaitiakitanga for nursing practice and nursing research in Aotearoa. That is our challenge for the next year.

Patricia McClunie-Trust

In this time of struggle to staff health services with nurses, as Litchfield notes in her guest editorial, there has never been a more important time to ensure that the contribution of nursing to health services and population health is made visible to the people of Aotearoa. The COVID-19 pandemic has offered opportunities for new ways of thinking in response to situations that are beyond our experience in living memory. Nursing responses, and the wisdom these responses have made visible, need to be recorded for future generations of nurses who find themselves similarly challenged.

> **We also need to study the findings of research published on the experiences of Māori in the health system to recognise what needs to change . . .**

This year's edition presents articles that address some key issues in nursing education, practice and research. The first two articles explore opportunities to engage nursing students in activities that will support them as graduates entering health services that

have high demand. Moir and Baby researched whether teaching communication skills early in a master of nursing science programme enabled graduate-entry nursing students to develop confidence in dealing with aggression in practice. Violence and aggression toward nurses have been exacerbated by the COVID-19 pandemic, and nursing students sometimes bear the brunt of aggression from both clients and staff in clinical practice settings. This study highlights that offering communication skills training early in the programme enables nursing students to develop confidence in dealing with aggression across all areas of health care.

Students expressed empathy and compassion

Nurse educators Bingham and Malone researched whether an educational intervention, based on face-to-face sharing of narratives with those who have a lived experience of mental illness and addiction, resulted in the expression of empathy and compassion by nursing students. In their study, an educational intervention was incorporated into the teaching and learning of mental health and addictions concepts in the bachelor of nursing curriculum, based on principles of narrative learning. The results indicated that a significant number of the student participants expressed empathy and compassion after listening to the narrative of a person who had experienced mental illness and/or addiction. The authors suggest that this intervention could be useful to enable nursing students to develop a deeper understanding of how to relate to people who have experienced mental illness and/or addiction.

Increasing nurses' job satisfaction is one of the main considerations in enabling the delivery of high-quality patient care, and retention of nurses in the health workforce (Slåtten et al., 2022). Othman conducted a literature review to explore the impact of nursing managers using a transformational leadership style and its effects on nurses' work satisfaction and retention. This review found that transformational nurse leaders have a positive impact on the quality of nurses' working conditions, helping create a healthy work environment and supporting the autonomy of nurses in their clinical roles. Nurses' mental health, job commitment and commitment to the organisation are crucial factors in their job satisfaction, which is an important consideration for health-care providers who are struggling to staff services with nurses.

The challenges of using clinical guidelines

Evidence-based clinical guidelines are an essential tool for nurses managing clients with complex conditions. Clinical guidelines enable the transfer of research-based knowledge into practice, with the understanding they are used alongside nursing judgment about what best fits the clinical context and the client's preferences (Menlyk & Fineout-Overholt, 2011). However, Menlyk and Fineout-Overholt note that it can be challenging for nurses to incorporate evidence-based guidelines into everyday practice. Donkin et al. explored nurse perspectives on barriers and facilitators of implementing the nationally endorsed stroke guidelines, in a New Zealand acute stroke unit. The findings of this research contribute to understanding the barriers and facilitators nurses may face in using clinical guidelines, and offer ideas about how to enhance their use in this practice context.

People with long-term conditions such as diabetes, hypertension, chronic respiratory diseases, dementias, and chronic renal and liver diseases require complex and ongoing care. The research brief for this edition offers a summary of the findings from an integrative review on whether home visits from nurse practitioners improve outcomes for people living with long-term conditions. Laidlaw and Mercer found the research reported that home visits from nurse practitioners reduced barriers to care and improved the health and quality of life for people with long-term conditions. However, further clarity is needed in health teams about the potential role of nurse practitioners in providing equitable and accessible health care for high-risk populations.

To identify the most relevant research for practice, access to the most pertinent information is essential. This requires nurse researchers to apply the right kind of search strategies, including a clearly defined systematic search process. International databases contain a wealth of knowledge, but finding relevant published research can be daunting and confusing without the support of an experienced librarian. In the final article for the 2022 edition, Reynolds et al. present an example of an ordered and systematic advanced search process, providing a step-by-step guide for how an evidence-based review question could be searched in library databases.

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MANAGING VIOLENCE AND AGGRESSION: GRADUATE-ENTRY NURSING STUDENTS' RESPONSES TO PRE-EMPTIVE COMMUNICATION SKILLS EDUCATION

Chris Moir

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ABSTRACT

Background: Violence and aggression toward nurses are workplace hazards that have been exacerbated by the COVID-19 pandemic. In clinical practice placements, nursing students sometimes bear the brunt of aggression from both patients and staff. The skills to respond safely and appropriately to these workplace hazards should be taught before students undertake clinical practice experiences. Therefore, teaching de-escalation skills early in the nursing programme is vital for student safety, and perhaps ultimately for their retention in the nursing workforce.

Objectives: To determine the effectiveness of early communication skills training to enhance nursing students' aggression management skills while on clinical placement.

Design: A quasi-experimental design using pre- and post-tests of communication competence following an education module delivered as part of the curriculum.

Sample and setting: Participants were students in a master of nursing science pre-registration programme.

Methods: Thackrey's Confidence in Coping with Patient Aggression Instrument and the Interpersonal Communication Competence Scale were administered at baseline before the communication session was taught. The same questionnaires were administered after the participants had completed clinical placements in acute care and mental health.

Results: There were 33 nursing student participants. Outcome measures indicated a significant increase in both aspects of communication confidence and competence from baseline across the two placements for the combined cohorts.

Conclusion: The study highlights the need to deliver communication skills training early in the nursing programme to enable nursing students to develop confidence in dealing with aggression across all areas of health care.

This article was accepted for publication in September 2022.

KEYWORDS

GEN students, aggression, violence, communication skills, clinical placement, education

INTRODUCTION

The impetus for this research was a poster on a board outside a ward nurses' office, alerting people to the fact that "No abuse of staff will be tolerated". This led to consideration about what content in the nursing curriculum prepared students to respond appropriately to violence or aggression in general wards. Since then, many such posters have been observed in all environments where nurses work, and violence in the health workplace has become more commonly discussed. During the COVID-19 pandemic, government measures to control the disease inspired strong emotions in some members of the public – the Wellington protests at the extreme end – and caused increased friction between the public and health workers. This recent evidence of the potential for health staff to become inadvertently involved in such conflict, shows that the notion of embedding aggression management in pre-registration nursing education is timely (Dyer, 2021).

Workplace violence has been reported throughout the health service (International Labour Office, International Council of Nurses, World Health Organization, and Public Services International, 2002; WorkSafe New Zealand, 2016). It is considered a serious occupational hazard facing personnel working in today's health-

care environment (Duxbury & Whittington, 2005; Hahn et al., 2012; Shafran-Tikva et al., 2017; Winstanley & Whittington, 2004). The United States (US) Occupational Safety and Health Administration defines workplace violence as *"any act or threat of physical violence, harassment, intimidation or other threatening disruptive behaviour that occurs at the work site."* (OSHA, 2016). According to the US National Institute of Occupational Safety and Health (2021), workplace violence typically falls into one of four categories: Type I – criminal intent, Type II – patient/client, Type III – worker on worker and Type IV – personal relationship. Type II and Type III are particularly relevant to nursing students, who have less experience with clients in the workforce to draw on (Minton et al., 2018; Nowrouzki-Kia et al., 2019).

BACKGROUND

Nursing students are likely to encounter aggressive behaviour during clinical placements (Jackson et al., 2011; Magnavita & Heponiemi, 2011; Hopkins et al., 2014; Heckemann et al., 2015). For the purpose of this study, violence was defined as *"any form of verbal or physical threat or assault perpetrated by patients towards the student nurse"* (Type II). It excludes other forms of violence which include bullying by family or other clinicians as perpetrators of aggression/violence.

A recent study on medical and nursing students' experience of violence in clinical placements noted over half the students reported having experienced verbal violence during their placements (Warshawski, 2021). This is a disturbing figure. Nursing students are at high risk of being victims of various types of aggression, ranging from verbal aggression to physical assault (Nau et al., 2009; Jackson et al., 2011; Magnavita & Heponiemi, 2011). Inexperience and lack of training, and younger age, have been identified as possible risk factors (Nau et al., 2011; Magnavita & Heponiemi, 2011; Hopkins et al., 2014; Brann & Hartley, 2017). Exposure to such behaviour could have a detrimental effect on their professional identity, values and attitudes if adequate preparation and support are not offered early in their education (Hopkins et al., 2014; Jeong & Lee, 2020; Warshawski, 2021).

In New Zealand, aggression management training is available and mandated as part of working in areas identified with potential for aggression and violence (Swain et al., 2014; Te Pou, 2016). The currently mandated training for all staff working in inpatient mental health services in district health boards (DHBs)[1] in New Zealand is the Safe Practice Effective Communication training. This is a four-day DHB-based national training course which teaches best and least restrictive practice in mental health inpatient units. This includes training in restraint minimisation, communication, de-escalation and collaboration, and personal restraint and breakaway techniques (Te Pou, 2016). However, this training is limited to the qualified workforce employed by DHBs.

Aggression management is an important issue for nursing students that requires attention during education before they undertake clinical practice. While evidence exists of the effectiveness of communication skills training for registered nurses (RNs) and health-care assistants such as the Workplace Violence Prevention Training Program intervention (Story et al., 2020), and "It's all about communication" (Baby et al., 2018), there is minimal evidence of the effectiveness of incorporating such training early in the education of health-care workers. De-escalation is commonly a component of mental health education. While some nurse education programmes place mental health early in the programme, others have it later. Given the apparent ubiquity of violence towards nursing students while on placements, the advent of a mental health placement should not determine the placement of this training as it appears it is necessary earlier, as part of therapeutic relationship education. For this reason, determining the communication styles of students and providing strategies/interventions to prevent, minimise and prepare them to cope and manage exposure to aggression in clinical placements would be beneficial at an early stage of their education programme (Bilgin et al., 2016; Hopkins et al., 2018; Heckemann et al., 2015).

This study aimed to assess the effectiveness of an aggression prevention and minimisation education package, "It's all about communication", for graduate-entry nursing students in guiding their coping with aggressive situations during clinical placements.

METHODS

Design

This is a quasi-experimental study, which uses a pre-test/post-test design to evaluate the effectiveness of a communications skills training programme for graduate nursing students to help them cope with aggression and violence during clinical placements. In this design, baseline measurements were compared with equivalent measurements made after the delivery of the educational intervention, post two clinical placements (acute care and mental health), to assess any change in the outcome variables that the intervention was designed to influence. The training was delivered as part of the standard curriculum for a master of nursing science programme. All students attended the education session, irrespective of their participation in this research study.

Setting and sample

The participants were nursing students in the first year of a graduate-entry master of nursing science programme at a New Zealand university in 2019 and 2020. This programme is an intensive integrated course of study, usually completed in two full-time years, which offers a pathway to a nursing career for graduates of any discipline.

Head of school approval was obtained for this study as part of the University of Otago ethical approval process. The principal investigator (CM) is the clinical coordinator for the master of nursing science and teaches students and assesses them in clinical placements. Therefore, the issue of coercion of students to participate was considered in the planning of this study. To avoid potential coercion, the students were given an information sheet before the consenting process. This explained that all completed questionnaires would be de-identified, that participation in the study was optional, and not participating would have no negative effects on their progression through the course. Co-researcher MB delivered the education package to both cohorts to ensure consistency in teaching. All surveys were directed to an administrator for de-identification before the data was entered into spreadsheets.

1) In July 2022, New Zealand's 20 district health boards, which delivered or funded all public health services, were replaced by a single body, Te Whatu Ora – Health New Zealand.

Intervention

The training module, "It's all about communication", was developed by Swain and Gale (2014) as an intervention for community support workers in New Zealand, to help them manage patient aggression. It was piloted and trialled as a randomised controlled trial (RCT) with promising results (Baby et al., 2018; Swain & Gale, 2014). The content of the communication skills package is derived from skills listed in the Calgary Cambridge Model of Communication teaching and learning in medicine (Silverman et al., 2013) and based on experience teaching communication skills to medical students. The sessions are structured from basic to complex. It involves pairwise and group discussions for each of the components. Examples on DVD were enacted by professional actors – these videos were based on true clinical situations which had been de-identified and modified to ensure privacy. The four sessions included communication techniques, working in groups, difficult situations and when to move on (see Table 1, below).

Table 1. Outline of 'It's all about communication' training

Communication techniques
• *Icebreaker*
• *Non-verbal cues*
• *Verbal cues*
• *Body language*
• *Mirroring*
Working in groups
• *Managing discomfort*
• *Group dynamics*
• *Open and closed questions*
• *Empathy*
• *Setting agendas*
Difficult situations
• *Control and structure*
• *Working in pairs*
• *Difficult situations*
• *Worries and concerns*
When to move on
• *What do when things go wrong*
• *When communication breaks down*
• *Taking care of ourselves*

Data collection and outcome measures

The educational intervention "It's all about communication" was delivered as part of the first-year communication component in October 2019 to the 2019 cohort, and in March 2020 to the 2020 cohort. Written informed consent was obtained from those agreeing to participate in the research study before the teaching session. A purpose-designed questionnaire was used to collect demographic information from the participants, and data on their confidence in coping with patient aggression and self-assessed communication competence at three time points:

(i) before the education session, as baseline,
(ii) after the acute care placement and,
(iii) after the mental health placement.

The nursing students completed five weeks of clinical placement in acute care settings (the 2019 cohort in November/December 2019, and the 2020 cohort in November/December 2020) and five weeks in mental health settings (the 2019 cohort in February/March 2020 and the 2020 cohort in February/March 2021). Following each placement, participants completed questionnaires which had been sent to their academic nurse supervisor. Students were asked to complete the questionnaire after their summative assessment interview. These were collected by the academic supervisor and sent to the administrator for de-identification. It is important to note that students' normal course content for their mental health placement included personal safety and de-escalation sessions, so this intervention brought them additional de-escalation teaching before their mental health placement.

The demographic section of the questionnaire gathered information about the participants' gender, ethnicity, age, basic and health-care specific educational qualifications, health-care work experience and previous aggression management and communication skills training.

Confidence in coping with patient aggression was measured with the scale developed by Thackrey in 1987 (Thackrey's Confidence in Coping with Patient Aggression Instrument). The instrument consists of 10 items rated on an 11-point scale from least confident to very confident. A high score indicates strong confidence in dealing with patient aggression. This scale has been found to be a useful instrument for evaluations of groups when used as a pre-test/post-test measure (Guay et al, 2016; Nau et al, 2011).

Competence in interpersonal communication is an impression or judgment formed about a person's ability to communicate in interpersonal relationships. The Interpersonal Communication Competence Scale is a brief, self-report measure of 10 interpersonal communication competence skills, which include self-disclosure, empathy, social relaxation, assertiveness, interaction management, altercentrism, expressiveness, supportiveness, immediacy and environmental control (Rubin & Martin, 1994). Each of the items are scored as 5 = almost always, 4 = often, 3 = sometimes, 2 = seldom and 1 = almost never. The scores range from 30 to 150, with higher scores indicating positive results. The 30-item scale has an overall alpha of 0.86, showing internal reliability and strong concurrent validity (Rubin & Martin, 1994). This scale is strongly related to cognitive and communication flexibility and is suitable for measuring communication skills among health-care workers/trainees (Ang, Swain, & Gale, 2013).

An open question, included in the questionnaires which followed each of the two clinical placements, provided an opportunity for participants to comment on their application of teaching from "It's all about communication" in the clinical environment. Participants were asked: *"Please tell us about any situation in your clinical placement where you felt you were specifically aware of applying the teaching from 'It's all about communication' sessions. In doing so, please ensure the confidentiality of patient information by using pseudonyms and omitting any specific content which could identify an individual."*

Data analysis

The data was analysed using the Statistical Package for the Social Sciences (IBM SPSS Statistics for Windows, Version 27) and using an alpha of 0.05. Descriptive statistics were used in the presentation of the demographic variable of the two cohorts and the total of both cohorts. Paired sample t-tests were performed on continuous data to estimate the differences in participants' scores between the pre-test (T1) and the two post-tests (T2 and T3) for the two outcomes scales, measuring confidence in coping with patient aggression and interpersonal communication competence. Feedback from the open question about the practical application of the intervention is presented as a summary from each placement.

Ethical considerations

Ethical approval was obtained from the University Human Ethics Committee before starting the study (19/124). The participants received an information sheet detailing the purpose of the study. Given the nature of the questionnaire, information could be sensitive, so questionnaires were de-identified before they were given to the researchers. Students were given a number to record on their questionnaire which was their participant number for all analysis. The master of nursing science administrator held the coding list and ensured that the questionnaires were coded correctly. Also, participants were given sufficient time to allow them to reflect on the implications of participation and not feel pressurised into taking part, despite the intervention being delivered as part of the curriculum. The research did not receive any grant funding from agencies in the public, commercial, or not-for-profit sectors.

RESULTS

Over the course of 2019 and 2020, 33 master of nursing science students participated in this study. Twelve were from the 2019 cohort and 21 from the 2020 cohort. Table 2 (below, left) outlines details of the demographic variables considered. Ethnicities with less than three people are reported as "other" to maintain anonymity. The majority of students (67 per cent) were NZ European, under 25 years old, with a bachelor's degree, and around half (55 per cent) had work experience in a health-care setting. A few (n=4) had previous training in working in aggressive situations. Three students did not complete all three questionnaires, one from the 2019 cohort (who did not complete the acute care questionnaire) and two from the 2020 cohort (who did not complete the mental health questionnaire). The total number of questionnaires in the data was adjusted accordingly. The questionnaires they did complete were still included in the data for analysis,

Table 2. Demographic details of the two cohorts

Cohort	2019 (n=12)	2020 (n=21)	Frequency	
			N (n=33)	%
Gender				
• Male	1	1	2	6
• Female	11	20	31	94
Ethnicity				
• NZ European	9	13	22	67
• Other	3	8	11	33
Age				
• Under 25yrs	9	13	22	66
• 25-34yrs	1	5	6	18
• 35-44yrs	1	1	2	6
• 45-54yrs	1	2	3	9
Experience working in health care				
• Yes	8	10	18	55
• No	4	11	15	45
Highest qualification				
• Bachelor's degree	11	16	27	81
• Master's degree	1	3	4	12
• PG diploma	0	2	2	6
Previous aggression management training				
• Yes	2	2	4	12
• No	10	19	29	88

Table 3 (page 13) indicates confidence in coping with patient aggression during clinical placements increased across all the 10 items on the CCPA measure for the 2020 cohort. On the 11-point scale at baseline, the mean score of 2 to 4 indicates participants had a relatively low level of confidence. After two placements, the scores of 6 and 7 indicate an increase to medium level of confidence. Examining the results by individual question, there was a drop in mean scores relating to physically intervening with aggressive patients, level of training for handling physical aggression, and ability to protect self from an aggressive patient in the 2019 cohort between acute care and mental health placements (range of drop 0.44-1.02). As this was the smaller cohort, these results did not influence significance in outcomes for the combined group. Analysis of within-subjects changes (combined cohorts) of total scores across time using paired samples t-tests indicated a statistically significant

Table 3. Cohort results on Thackrey's Confidence in Coping with Patient Aggression Instrument (CCPA) for baselines and two placements

	Baseline	Baseline	Acute care	Acute care	Mental health	Mental health
Timeline and cohorts	**2019 m(SD)**	**2020 m(SD)**	**2019 m(SD)**	**2020 m(SD)**	**2019 m(SD)**	**2020 m(SD)**
1. How comfortable are you in working with an aggressive patient?	4.50 (1.45)	4.05 (1.88)	6.91 (2.02)	5.58 (2.12)	7.36 (1.20)	7.00 (1.37)
2. How good is your present level of training for handling psychological aggression?	2.92 (1.78)	3.05 (1.79)	5.64 (1.69)	4.26 (2.32)	5.83 (1.89)	6.42 (1.84)
3. How able are you to intervene physically with an aggressive patient?	3.17 (1.64)	3.30 (2.79)	5.27 (1.61)	4.19 (2.71)	4.25 (2.05)	5.16 (2.71)
4. How self-assured do you feel in the presence of an aggressive patient?	3.75 (2.05)	3.65 (1.95)	6.00 (1.94)	4.43 (2.25)	6.75 (1.42)	6.21 (1.75)
5. How able are you to intervene psychologically with an aggressive patient?	3.00 (1.76)	3.75 (1.83)	5.18 (1.60)	4.62 (2.06)	6.92 (1.08)	6.37 (1.60)
6. How good is your present level of training for handling physical aggression?	2.67 (1.92)	2.95 (2.52)	5.09 (2.21)	3.95 (2.35)	4.00 (1.95)	4.95 (2.35)
7. How safe do you feel around an aggressive patient?	3.25 (1.42)	3.30 (1.86)	5.65 (2.16)	4.57 (2.09)	5.67 (2.19)	5.79 (2.02)
8. How effective are the techniques that you know for dealing with aggression?	3.0 (2.00)	3.05 (1.83)	5.73 (2.28)	4.42 (2.41)	6.00 (2.10)	5.74 (2.32)
9. How able are you to meet the needs of an aggressive patient?	3.33 (1.61)	3.05 (1.76)	5.27 (1.62)	4.38 (1.99)	6.25 (1.60)	6.37 (1.57)
10. How able are you to protect yourself physically from an aggressive patient?	4.08 (1.38)	3.95 (2.66)	6.36 (2.84)	5.14 (2.52)	5.92 (2.39)	6.53 (2.17)
Total scale score	3.36 (1.40)	3.40 (1.93)	5.71 (1.78)	4.65 (2.10)	5.90 (1.15)	6.06 (1.68)

increase in confidence coping with patient aggression as the students progressed through placements. The shift in confidence in coping with patient aggression between baseline and mental health (mean (SD) of -24.9(14.10), t=9.867, df=29, p=0.000) shows this. There was a statistically significant increase reported between acute care and mental health, with a mean (SD) = -9.07(14.69), (t=3.324, df=28, p=0.0).

Figure 1 (page 14) illustrates the increase in confidence across placements for the combined cohorts; confidence increased for each question in the questionnaire.

Results for the Interpersonal Communication Competence Scale (ICCS) show an increase in competence reported by the participants across times. At baseline, the mean (SD) of 113.91(7.89) increased to 117.15(8.81) for acute care, followed by a slight drop in total mean (SD) at mental health of 116.11(9.64), an overall increase of 2.2 on the total score. There was a significant difference in the scores for baseline and after the acute-care placement, (t=2.74, df=26, p=0.01). A similar statistically significant improvement in competence in communication was evident between baseline and mental health (t=2.05, df = 26, p=0.05). However, the changes in communication competence between clinical placements (acute care and mental health) were not significant. The lowest scores were recorded for 4. Assertiveness (*"standing up for one's rights without denying the rights of the other"*) and 10. Environmental control (*"demonstrating one's ability to achieve predetermined goals and satisfy need*"). Consistently, the highest score was for 9. Immediacy which the authors of the ICCS describe as "*showing others that you are approachable and available for communication*" (Rubin & Martin,

Table 4. Group comparison of Interpersonal Communication Competency Scale (ICCS) results for two cohorts at baseline and across two placements

ICCS item	Baseline 2019 m(SD)	Baseline 2020 m(SD)	Acute care 2019 m(SD)	Acute care 2020 m(SD)	Mental health 2019 m(SD)	Mental health 2020 m(SD)
1. Self-disclosure	3.86(0.64)	3.84(0.79)	4.06(0.57)	4.00(0.68)	4.03(0.69)	4.02(0.70)
2. Empathy	3.75(0.45)	3.78(0.40)	4.03(0.28)	4.09(0.46)	4.12(0.37)	3.98(0.53)
3. Social relaxation	4.11(0.36)	4.02(0.55)	4.21(0.37)	4.00(0.72)	4.25(0.59)	3.96(0.59)
4. Assertiveness	3.08(0.59)	3.48(0.75)	3.30(0.66)	3.47(0.61)	3.31(0.61)	3.47(0.68)
5. Altercentrism	3.67(0.28)	3.48(0.23)	3.55(0.31)	3.58(0.30)	3.64(0.46)	3.53(0.47)
6. Interaction management	3.36(0.44)	3.59(0.49)	3.67(0.37)	3.67(0.55)	3.78(0.30)	3.81(0.36)
7. Expressiveness	3.75(0.77)	3.95(0.63)	3.97(0.43)	4.10(0.50)	4.03(0.50)	3.81(0.66)
8. Supportiveness	4.22(0.48)	4.13(0.45)	4.36(0.31)	4.18(0.51)	4.30(0.52)	4.20(0.48)
9. Immediacy	4.47(0.44)	4.48(0.51)	4.55(0.22)	4.46(0.52)	4.53(0.36)	4.40(0.63)
10. Environmental control	3.52(0.41)	3.41(0.58)	3.45(0.52)	3.58(0.49)	3.67(0.49)	3.63(0.43)
Total score	113.42(6.64)	114.19(8.66)	117.45(7.60)	116.94(9.80)	118.00(8.83)	114.81(10.22)

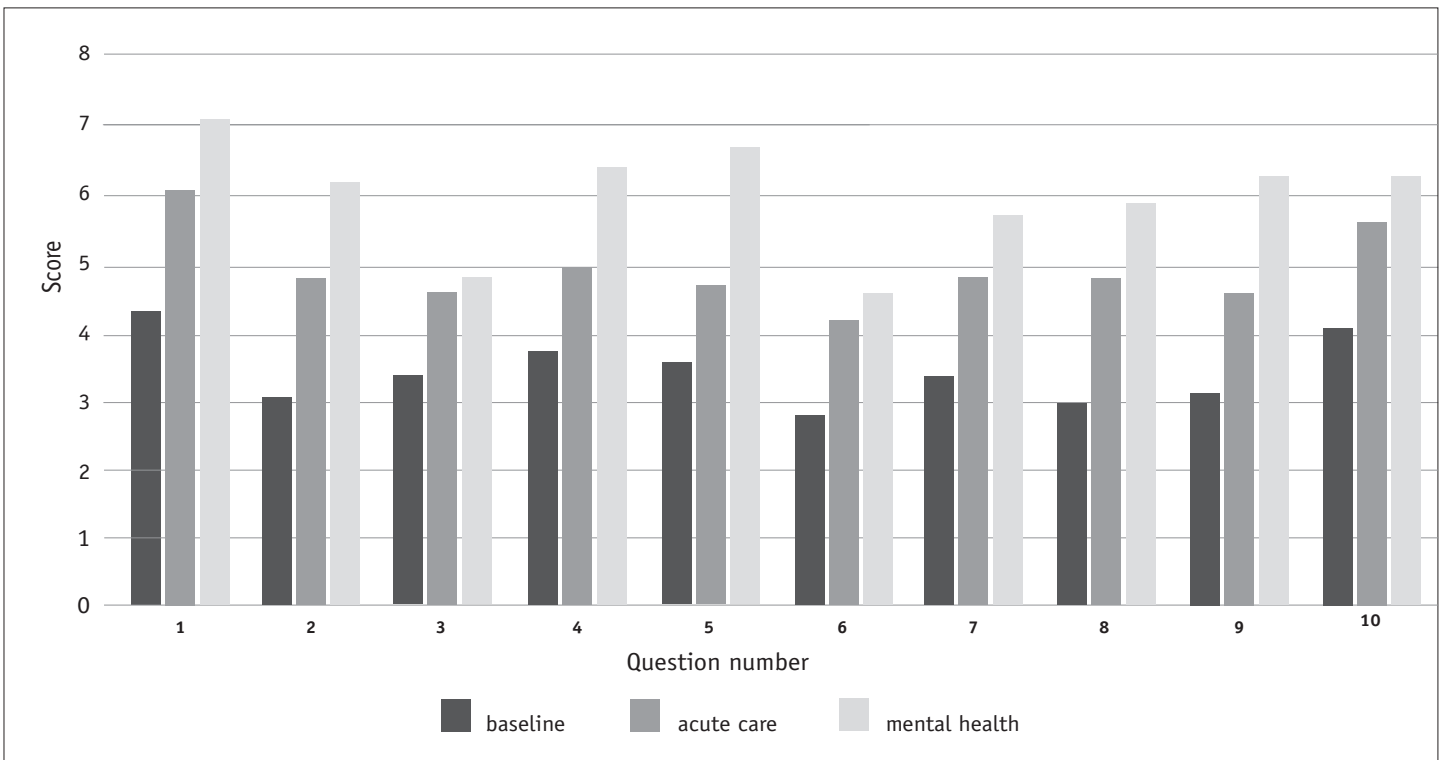

Figure 1. Combined cohorts result on questions in Thackrey's Confidence in Coping with Patient Aggression Instrument from baseline and post placements

1994, pp. 35-37). While the total scores showed a significant increase from baseline to each placement, Figure 2 (page 16) illustrates that this was mainly from an increase in four questions, rather than consistently across the questionnaire.

Open comments findings

The summary of the responses from the open question on the practical application of the education session shows students' comments made after acute-care placements were likely to be about communication with nurses and other members of the health-care team. The comments after mental health placements were more focused on communication with patients (see Table 5, below).

DISCUSSION

This study involved delivering an educational intervention to students in the early stages of their nursing education to increase their communication and de-escalation skills. The aim was to adequately equip them to manage aggression, given that research indicates they can experience this in all placements and from a variety of sources (Hallet et al., 2021; Heckemann et al., 2015; Hopkins et al., 2014; Jackson et al., 2011; Magnavita & Heponiemi, 2011). For the first of two measures, Thackrey's Confidence in Coping with Patient Aggression scale indicated that for the students in the 2020 cohort, confidence increased for all 10 items across clinical placements. However in the 2019 cohort, the confidence scores were noted to decrease from acute care to mental health placement on three items of the scale dealing with physical aggression (items 3, 6 &10). It may be that the greater number of participants in 2020 reduced the variation, as the combined group change was significant.

However, it is also plausible that post mental health placements, students had been challenged and realised their confidence in dealing with physical aggression was lower. Thackrey's scale has previously been used after teaching sessions on aggression management with registered nurses (RNs). Story et al. (2020) reported a pre-training mean of 55.1, indicating a higher baseline mean than this group of students (33.8); they report the post-training mean as 78.8, a mean increase of 23.7 (43 per cent). The present study reports an increase in mean of 26.12 from baseline to the mental health placement (60.00), an increase of 77 per cent. Most of this increase was evident between baseline and acute care placements, where the post result was 50.3, a 48 per cent increase.

Although the majority of the students in this study had previous experience in other roles in health care, the years of nursing experience reported in the study conducted by Story et al. (2020) was six to 10 years. Story et al (2020) used items 1 and 4 as pertinent questions in analysis of their results with their RN participants. They found around a 24 per cent increase from pre- to post-training for those questions on perceptions of comfort and confidence in dealing with patient aggression. This current study showed increases on those questions of 67 per cent and 71 per cent respectively, indicating a high level of increase in comfort and confidence among participants. This finding could be due to increased confidence

Table 5. Summary of open question feedback of practical implications of the educational intervention 'It's all about communication'

Area of placement	Feedback/comments
Acute care	• *"I felt comfortable telling nurses when I had an idea about treatment/care of my patient and would speak up if I didn't agree."* • *"When in handover before shift and seeing different nurses takes on patient demeanour and comparing it to my experience with those patients. It made me aware of the importance of the application of the sessions in building rapport with patients."* • *"I had a conversation with a patient's family that was assessing what they understood of a 'quality of life' conversation. They hadn't understood at all. They needed a lot more coaxing and tears, they were shocked."* • *"When I had an agitated person who wanted to leave the ward. I ended up communicating well with her and talking about her family, old occupation, etc. and allowing her to express her concerns."* • *"Communicating with peers in a diverse healthcare team effectively and openly to ensure I was on the right track and keeping patients safe."*
Mental health	• *"Crowd control when things would 'kick off' with a patient. My role was to lead the other patients away from the commotion."* • *"Talking to patients about taking their medications on time."* • *"Whilst de-escalating someone who had become frustrated after a phone call with family."* • *"Describing a procedure so that it wasn't as intimidating/threatening. Helping defuse with a different way of saying the same thing."* • *"I felt I improved in reading body language and utilizing silence in situations during my mental health placements. I think it helped me to understand when a patient was beginning to become distressed or agitated and how I could use my communication skills to minimise this. I did not have any contact with violent pts and still feel unprepared for this."* • *"Communicating with patients with a history of violence/aggression. Keeping a safe distance, staying alert. Speaking animatedly, warmly, in a non-judgemental way. Asking questions, building rapport and trust."*

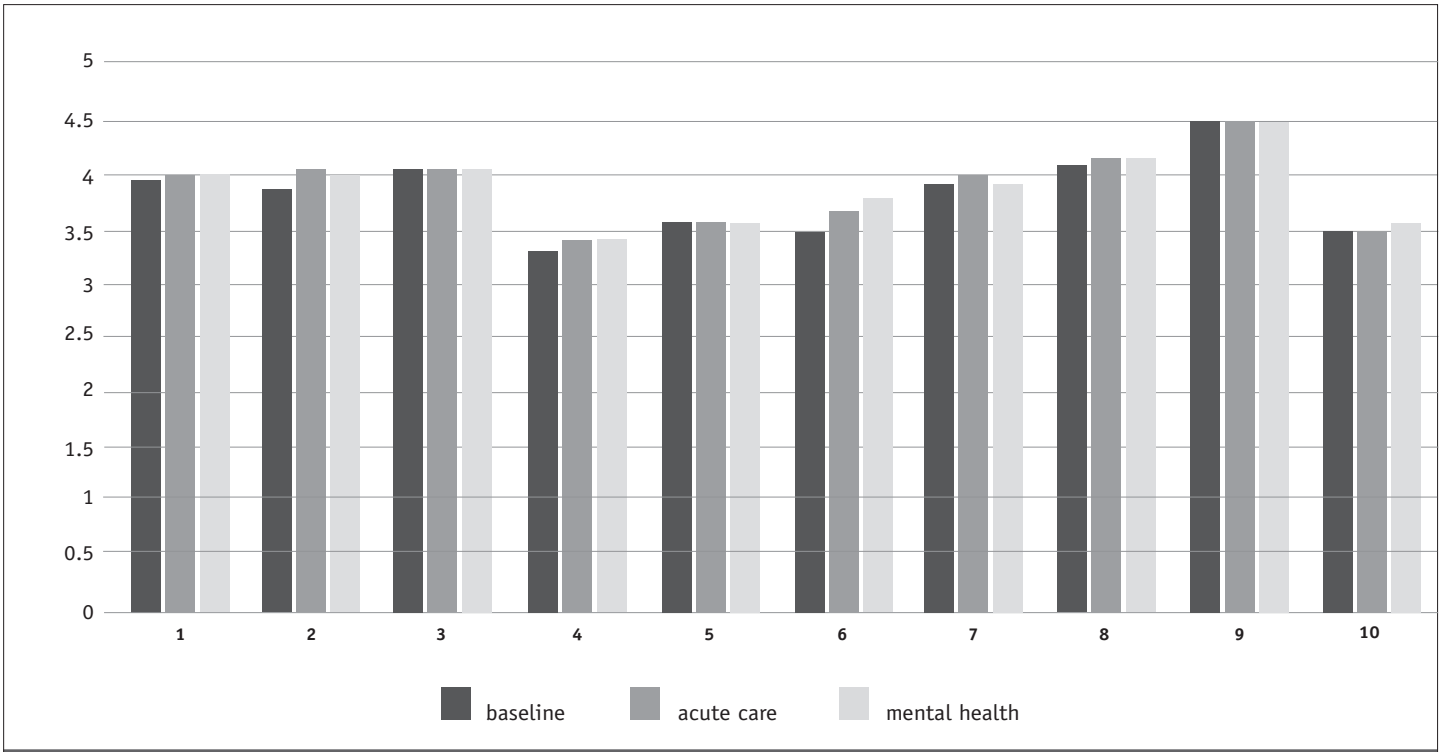

Figure 2. Combined result for questions in the Interpersonal Communication Competency Scale from baseline, acute care and mental health

in dealing with consumers of care in the clinical setting across placements as a result of the training, and also due to experiential learning. The current study's student participant group may have set a benchmark for student cohorts using Thackrey's scale which other studies might use for comparison. This also highlights that students have lower levels of confidence in managing/facing aggression in clinical settings than experienced RNs, and a targeted intervention such as the communication skills training programme delivered within the early stages of education appears to be beneficial.

For the second measure used, the Interpersonal Communication Competence Scale, another research study with a student cohort makes a useful comparison. The participants in an Australian study – a group of paramedical students – had similarities to the cohort in this study (Ross et al., 2014). Similarities in the age of participants across both studies is noted, with 86 per cent less than 26 years of age. The results in the comparative study indicated students were more confident in their communication across the aspects of empathy, supportiveness and immediacy (Ross et al., 2014). At baseline, the participants in the current study also rated themselves the highest on supportiveness and immediacy. However, the lowest scores were for assertiveness, which remained the lowest scoring aspect in the outcome measure across all three time points. This is concerning, given this is a group of graduate students who might be expected to have similar level of assertiveness to the cohort of paramedical students represented in the study by Ross et al. (2014). Given that 40 per cent of a group of New Zealand undergraduate nursing students reported worker-on-worker bullying in their clinical placements (Minton et al., 2018), assertiveness training could also be a useful addition to pre-registration nursing education. The highest score for "immediacy" – defined as *"showing others that you are approachable and available for communication"* – is consistent with the communication style associated with nursing and the caring professions in general.

The students' increased confidence with communication was supported by the comments in the open questions. The open questions also allowed the researchers to determine which specific components of the educational intervention had practical applicability for students in their clinical placements. Students' responses indicated they considered patients/family and co-workers in their application of the communication teaching. Given two out of four types of workplace violence classification include Type II (patient/client) and Type III (worker on worker), the comments of the nursing students indicate they are thinking broadly of the definition of this phenomenon, and the practical application of the education intervention.

LIMITATIONS

The major limitation of this study is the small sample size. However by ensuring use of consistent methodology, combining two cohorts for a larger sample was possible. Further research with larger groups of both graduate-entry and undergraduate nursing students is required, as these results require follow-up. Replication of the teaching is possible; however student placements will differ across programmes, therefore this aspect of the research is not possible to replicate.

CONCLUSION

Nursing students, like qualified nurses and other health-care professionals, are not shielded from experiencing aggression and violence during clinical placements, an issue exacerbated by the COVID-19 pandemic. While the educational intervention "It's all about communication" resulted in increases in nursing students' confidence in dealing with aggressive patients and enhanced their competence in interpersonal communication, further research into the long-term outcomes of this educational intervention would be helpful. This could focus on student attrition rates, choice of area of work and transference of learned communication skills to clinical work, post-registration. The improvement in confidence and communication from baseline to acute care is greater than that from acute care to mental health, indicating that delivering the intervention earlier in the nursing programme rather than before the mental health placement was useful for nursing students. It meant they could look broadly at communication skills and dealing with aggression or a crisis as not only being part of mental health nursing but as applicable across all areas of their work. This study highlights the need to deliver communication skills training early in nursing education to enable nursing students to develop confidence in dealing with aggression across all areas of health care.

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DEVELOPING COMPASSION IN NURSING STUDENTS THROUGH ENGAGING WITH A LIVED EXPERIENCE

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ABSTRACT

Aim: The aim of this study was to understand if an educational intervention, in which people with experience of mental illness and addiction shared their stories with nursing students, resulted in those students expressing empathy and compassion.

Background: An educational intervention was incorporated into the teaching and learning of mental health and addictions concepts in the bachelor of nursing curriculum, based on the principles of narrative learning. In a series of workshops, small groups of second-year nursing students interacted face-to-face with people who had experienced mental illness and/or addiction and listened to their stories. This was facilitated through a partnership with non-government organisation Yellow Brick Road.

Methodology: This study used qualitative descriptive research. Convenience sampling was used to recruit study participants, who were undergraduate nursing students enrolled in their second year of a bachelor of nursing programme. Data was gathered from self-report statements written by the students, following their experience of each of five workshops. Content analysis was used to identify themes and patterns.

Findings: Results indicated a significant number of the nursing students expressed empathy and compassion after listening to the narrative of a person with a lived experience of mental illness and/or addiction.

Conclusion: This educational intervention resulted in nursing students expressing empathy and compassion. This type of learning could contribute to the ongoing development of students' nursing practice by making them more empathetic and compassionate towards people who have experienced mental illness and addiction.

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KEYWORDS

Nursing students, undergraduate, education, mental health, empathy, compassion, lived experience

INTRODUCTION

Change is afoot for undergraduate nursing curricula in New Zealand's polytechnic sector, with one bachelor of nursing curriculum being developed, to be implemented across all nursing schools, under the Te Pūkenga umbrella (Brinkman, 2021). Now is the time to strategically consider how and when the teaching and learning of mental health and addictions concepts are delivered in the curriculum. This should include consideration of whether current undergraduate nursing curricula adequately prepare nursing students for practice, not only for the mental health and addictions specialty settings, but also for using mental health and addictions skillsets across all clinical settings. The World Health Organization [WHO] (2019) suggests that mental health and addictions assessment and delivery of care needs to take place more in primary health care. The *He Ara Oranga* report notes that mental health and addiction issues are present in all health-care settings, and recommends strengthening mental health and addiction capacity in the primary health sector, and across non-specialist settings (New Zealand Government, 2018). This includes health promotion and prevention, to avert escalation of mental health and addiction issues (Australian Government Department of Health, 2019).

There is ongoing debate about the education undergraduate

nurses receive, with particular concern about the mental health and addictions content, and the priority of these concepts within curricula (Spence et al., 2012). Learning experiences that increase empathy and compassion in nursing students toward those who experience mental illness and addiction is essential. These positive qualities improve both nurses' interpersonal skills and outcomes for those whom the nurses encounter (Marcysiak et al., 2014). Exposing nursing students to those who have experienced mental illness and addiction, particularly during meaningful face-to-face interactions, is essential (Corrigan, 2012; Happell et al., 2014b). This is seen as an effective strategy to influence nursing students' attitudes, making them more empathetic and compassionate toward those who experience mental illness and addiction (Ironside, 2015; Martin, 2000). This research was undertaken to see if an educational intervention developed the expression of empathy and compassion by nursing students towards those with mental health and addiction experiences. A timely question for nurse academics and curriculum developers to consider is:

"Does current mental health and addictions teaching and learning within bachelor of nursing curricula, strategically prepare nursing students to develop the attitudes and skillset required to meet the holistic needs of the communities they serve?"

BACKGROUND

The education of nursing students should provide opportunities for them to develop the nurturing qualities of empathy and compassion, so they can provide safe and effective person-centred care (Francis, 2013). Public scrutiny of health care often discusses nursing qualities that those receiving care consider to be missing. Recipients of care consider that nurses, along with having knowledge and sound technique, need to be empathic and compassionate (Blomberg et al*.,* 2016). Those receiving care are often not able to describe empathy, but are able to decide if they have experienced an empathic approach (Brunero et al., 2010). Having the ability to care is a valued attribute for a nurse, and caring is seen to be the core business of nursing (Shields, 2014).

It is interesting to note that empathy has two components – firstly the cognitive perspective, and secondly, the affective aspect, often described as compassion (Dal Santo, 2014). Compassion is an affective reaction to a person's experience (Marcysiak et al., 2014), an attitude towards another that is focused on concerned caring and tenderness. This enables the development of a supportive helping relationship, based on an understanding of others, which is essential to providing person-centred care (Teofilo et al., 2019).

Despite empathy being a concept with many dimensions, this study concentrates on cognitive empathy – the ability to comprehend what another person is feeling and experiencing and to be able to understand those feelings. This underpins the willingness to respond appropriately to the other person's needs (Hatfield et al, 2011). Empathy is an important part of nursing practice, and is an essential skill for forming caring relationships that are vital to the provision of quality nursing care (Reynolds et al.,1999).

Nursing students often hold attitudes and views that lead to stigmatising beliefs about those who experience mental illness and addiction (Corrigan et al*.,* 2012; Fokuo et al*.,* 2016). When stigmatising beliefs are dominant in a nursing student, the student is more focused on the self, which can decrease their ability to empathise (Delgado et al., 2021). Students can experience a decrease in stigmatising beliefs and discriminating behaviours when listening to the stories of people with a lived experience (Bingham & O'Brien, 2017). Therefore, if students are exposed to the stories of those with a lived experience of mental illness and addiction, they could subsequently feel concern (Low et al., 2015). With empathy and compassion being essential to caring, there is a complex interplay between the need to develop expert nursing practice, alongside the need for interpersonal sensitivity to develop therapeutic relationships (Richardson et al., 2015). Having those with experience of illness share their narratives of these experiences is a helpful education tool for developing empathy (Ferri et al*.,* 2019).

Educational interventions that focus on developing empathy often involve vulnerable populations (Levett-Jones et al., 2019). The intervention used in this study does this, using those with a lived experience as expert-patient teachers to help the students experience their innate empathy (Ferri et al*.,* 2019). Using those with lived experience as part of nursing education encourages students to reflect on what a person receiving care requires, which helps develop their cognitive empathy (Ferri et al., 2019).

A narrative consists of a person sharing their journey through time, through which the listener should glean the essential elements of the story. The sharing of the narrative allows the storyteller to clarify and reflect on their story as they tell it. It provides an opportunity for the teller to clarify, reframe and understand their current behaviours, in relation to their past (Freshwater & Holloway, 2015). Listening to patients' stories allows the nurse to gain a deep understanding and sense of another's suffering, in particular in relation to an illness; this, in turn, has a positive effect on patient outcomes (Freshwater & Holloway, 2015). Hearing real-life stories, in preparation for a mental health clinical placement, helps students make sense of how mental illnesses may affect a person. It enables them to reflect on their potential nursing actions in mental health practice (Treloar et al., 2017).

STUDY SETTING

The study participants consisted of a cohort of second-year nursing students from a nursing school in New Zealand. Ages ranged from 18 to 50 years; two were male, and the rest female. Ethnic backgrounds varied, with the majority being European New Zealanders *(n = 19)* and the next highest group identifying as Māori *(n = 9)*. Five workshops were held over five weeks of learning, each based on a specific topic related to mental illness and addiction. At the workshops, small groups of six to eight students interacted with people with experience of mental illness and/or addiction, and with whānau members who have supported people with these experiences.

AIM

The aim of this study was to understand if an educational intervention, based on face-to-face sharing of narratives by those with a lived experience of mental illness and addiction, resulted in nursing students expressing empathy and compassion.

METHODOLOGY

A qualitative, descriptive research design, described by Sandelowski (2000), was used to undertake this study (Borbasi et al. 2019). When choosing methodology for a research study, consideration needs

to be given to the nature of the knowledge being sought to answer the hypothesis. The aim of this research study was to consider the behaviour of the students through their expression of language; therefore, a social science perspective was needed (Oliver, 2010). Descriptive research allows the researcher to explore the frequency with which a particular phenomenon occurs, in this case an expression of empathy and/or compassion (Polit & Beck, 2014). It is a methodology often used in nursing and social science research (Kim et al., 2017).

Quantitative research is often considered a superior scientific method to qualitative research (Shuval et al*.,* 2011). However this study needed a method that fit with nursing philosophies, as the data is descriptive and takes place in a real-life setting (Welford et al*.,* 2011). Content analysis was used to analyse themes and patterns that emerged, consistent with a descriptive qualitative study (Polit & Beck, 2014). Educators need to take responsibility and ensure that educational interventions do what they are intended to do. Therefore, it was important to understand if there was an empathetic and/or compassionate response (Levett-Jones et al., 2019).

METHOD

To ascertain the language used in conjunction with the key terms "empathy" and "compassion", as they are defined in the literature, a search string was created using (compassion*) AND (empath*) AND (other) to generate a literature search. The search parameters were literature that was: no older than 10 years, written in English, a peer-reviewed journal article, and relevant to the discipline of nursing. This resulted in 46 journal articles, from which 12 were selected, by reviewing the title and abstract.

Data collection took place after each of the five workshops, with the nursing students writing self-reporting statements, using free text, about how they experienced the education intervention in relationship to their development as a nurse. Data were collected anonymously. The language used by the students was examined using content analysis (Polit & Beck, 2014), and was subsequently coded manually as it correlated with the subcategories of empathy and compassion found in the literature.

ETHICS

Ethics approval for this study was granted by the Western Institute of Technology Taranaki research committee, which identified it as low risk. This research was considered to be non-interventional. However, all participants were from the second-year cohort of the bachelor of nursing, whom the researchers were teaching, therefore the risk of coercion was acknowledged. The design of the research project was clearly explained to potential participants, including that data collection was anonymous, and participation was not compulsory. Steps were taken to maintain anonymity, so the researchers were not aware who participated, and who did not.

EDUCATIONAL INTERVENTION

The design of this educational intervention addressed the need to widen nursing students' view of the patient experience, to expand and deepen their knowledge, while building their capacity for empathy and compassion, within the constraints of the curriculum. Narrative as a pedagogy can engage nursing students in critical thinking by triggering personal reflection and making connections between textbook knowledge and learning in the real world. It also encourages them to look beneath the surface to understand a person's story in a social context, that has personal consequences (Brady et al., 2016). Learning facilitated through listening to narratives results in a different way of thinking; personal assumptions are challenged and the ability to consider situations more widely is developed, especially for younger learners with less life experience (Morrison, 2010).

The educational intervention was designed with the understanding that patients can be expert teachers, and telling their illness stories has an effect on the empathic response of nursing students (Ferri et al., 2019). A specific mental health and addictions concept was explored during each of the five workshops – depression; psychosis, including schizophrenia; bipolar affective disorder; addictions; and suicide and self-harm. In preparation for each workshop, students were given information about the mental health concept that each particular workshop focused on. Two hours were set aside for each workshop, which involved a face-to-face interaction between a small group of nursing students, and either a person with experience of mental illness or addiction, or a whānau member who had supported someone with such experience.

Before the workshops, each group of six to eight students were asked to develop potential questions, and organise seating, greetings and karakia. All students were expected to take an active part. Participants from Yellow Brick Road (an organisation which supports families who have a member suffering mental distress) had two rotations through the small groups, which resulted in each small group having the opportunity to listen to the illness story of someone with a lived experience of mental illness or addiction, and a whānau member, who had supported someone with a lived experience of mental illness or addiction.

After each workshop, each group of students reflected on their learning. Key points from the group discussions were then shared with the whole cohort, and the workshop concluded with the students being invited to self-report anonymously, what they felt they had learned about being a nurse, in relation to those who experience mental illness and addiction. These self-reports were collected and formed the data used to understand if the learning experience had resulted in an empathetic and/or compassionate response.

RESULTS

Data collected from the five workshops were connected to the individual mental health and addictions concepts being explored by the students. The cohort size was the number of students enrolled in the course, with the participant number representing those that attended each workshop. Workshops were run over five weeks with all of those attending choosing to take part in the study and provide data. This was deduced from the total number of self-reports collected (see Table 1, page 22). The data collection numbers, while not large, are a high proportion of those who could have participated (Table 1).

FINDINGS AND RESULTS

Table 2 (page 22) shows a selection of self-reported statements from the students, which relate to key words consistently identified from the literature as being connected to compassion. The findings are outlined in tables 3 and 4 (page 23), and are presented in two sections, under the headings "empathy" and "compassion". The

content of the data was analysed based on key words identified in the literature that defined empathy and compassion. Results indicate a significant number of students expressed empathy and compassion, following the educational intervention.

"Empathy" was identified by the following language: using the word "empathy", listening with understanding, feeling with, self-aware, validating, allows opportunity to express needs.

"Compassion" was identified by the following language: the desire to alleviate another's distress; compassion; person-centred; connecting; open; approachable; caring; intelligent kindness; respectful; emotional intelligence; non-judgmental attitude.

Empathy

Data from all five workshops are combined and represented in Table 3. The key words identified by the authors from the literature are shown, along with the number of self-reports in which these were expressed listed in numerical form. "Listening with understanding" was noted as the top occurrence, as an expression of empathy. Overall, there appeared to be a significant number of times empathy was expressed following the five workshops, with 80 per cent of the self-reports showing students expressed empathy towards those with mental health and addiction experiences.

Compassion

The key words identified by the authors from the literature that express compassion are shown in Table 4, with the number of self-reports which express these listed in numerical form. "Being non-judgmental" occurred most often as an expression of compassion. Overall, there appeared to be a significant number of times compassion was expressed by the students following the five workshops. However, as empathy is considered to be a part of the development of compassion, the lower number of times compassion was expressed (67 per cent),

Table 1. Cohort size and number of students who participated in each workshop

Case-based concept	Depression	Psychosis	BPAD#	AOD*	Suicide
Cohort size	39	39	39	36	36
Participant number	37	37	36	35	31
Total number of self-reports collected	**37**	**37**	**36**	**35**	**31**

 # Bipolar affective disorder *** Alcohol and other drugs**

Table 2. Examples of language used that demonstrated compassion

Language indicating compassion	Nursing students' self-report statements
Empathy	"The biggest thing for me is to understand and support the person by giving them hope." "Empathy of the nurse has a large impact on recovery." "The best thing a nurse can do is be nonjudgmental."
Caring	"Taking time to really care, not just do assessments."
Respectful	"As a nurse, bring present, not just doing tasks." "All patients deserve respect no matter how they got to where they are." "Ask the patient how they would like to be treated." "Treat patients as people, not labels."
Self-aware	"As student nurses, we have the opportunity to make a change . . . to change discriminatory behaviours." "Nurses should spend more face-to-face time with patients." "You don't have to be perfect, just present." "As nurses, being genuinely empathetic and compassionate and truly listening to our patients is one of the most valuable tools to build therapeutic relationships, trust and provide a sense of comfort for the patient."
Validating	"Listen to the patient when they are talking about themselves because they know their bodies best." "Patients need to be listened to and treated with compassion."
Active listening	"As nurses, being genuinely empathetic and compassionate and truly listening to our patients is one of the most valuable tools to build therapeutic relationships, trust and provide a sense of comfort for the patient." "The importance of listening and allowing the client to speak. "Importance of health-care professionals listening and understanding."

compared to empathy (80 per cent), showed the students could still be developing compassion. On the other hand, the results might indicate compassion fatigue (Jack, 2017).

DISCUSSION

Furnishing empathy and compassion is core business for nurses, particularly those caring for people who experience mental illness (Gerace, 2020). While there are a number of studies that have considered empathy, there are few that have examined the development of empathy in nursing students (Levett-Jones et al., 2019). This study has attempted to understand whether an educational intervention, using patients as expert teachers sharing narratives, triggers empathic or compassionate responses in nursing students. It is interesting to note that while the academic world finds compassion difficult to measure, the recipients of care can detect such qualities in nurses' behaviour (Blomberg et al., 2016).

The findings of this study support the assumption that the educational intervention results in an expression of empathy and compassion. However the data collected shows a higher expression of empathy. This may be due to the underdevelopment of compassion in second-year undergraduates, because they tend to be young with limited life experience. However it may also indicate compassion fatigue, which has been reported to occur as the student advances through their training (Jack, 2017).

The feedback language observed in the data (Table 2) does nonetheless explicitly indicate powerful expressions of compassion, which correlate with how it was discussed or defined in the literature. The values and beliefs of the nursing students are also evident in the language used, along with the notion that those with a lived experience were ordinary people, just like themselves. Compassion is the result of cognitive empathy, that sets the tone of the compassionate relationship between the undergraduate nurse and the patient (Tan et al., 2021).

Table 3.

Empathy subcategories	Number of self-reports in which this was expressed
Empathy	10
Listen with understanding	76
Feeling with	9
Self-aware	33
Validates	11
Allows opportunity to express needs	2
Total number of self-reports in which empathy was expressed	**141 = 80.1% of total number of self-reports**

Table 4.

Compassion subcategories	Number of self-reports in which this was expressed
Compassion	11
Person-centred	22
Connection, open, approachable	14
Caring	2
Intelligent kindness	1
Respectful	6
Emotional intelligence	12
Non-judgmental attitude	50
Total number of self-reports in which compassion was expressed	**118 = 67% of total number of self-reports**

Nurse academics who set curricula need to understand that mental health and addiction teaching and learning should be part of a broader holistic understanding of who a person is, in the context of their own life story. This study suggests that through experiencing narrative learning, nursing students will become better listeners, who are more attentive to people's needs. Thus they are moving from a biomedical model to a more holistic psychosocial model of thinking and caring (Happell et al., 2014a). The language used in the students' self-report statements (Table 2) indicates an understanding of what it might be like to "walk in another person's shoes", allowing the students to gain an understanding of the feelings, perspectives, experiences and needs of another person (Levett-Jones et al. 2019).

The results indicate that the use of narrative as a teaching and learning pedagogy, using patients as expert teachers, can facilitate the development of empathy and compassion in nursing students, leading to real changes in their understanding of people's lives (Happell et al., 2015). This is an important finding, as empathic relationships, built on trust, are core to effective nurse-patient relationships (Gerace et al., 2018). The literature suggests there is a generalised lack of empathy among nursing students, resulting in compromised patient outcomes (Levett-Jones et al., 2019). Furthermore, Trzeciak et al., (2017) state there is an overall lack of compassionate patient care, highlighting the need to address the issue, given the positive impact compassionate care has on patient outcomes.

The findings also add weight to the importance of the learning that can take place when partnerships are developed between nurse academics and those who have a lived experience – those who are experts on their own life story. The language used in some of the student self-reports (Table 2) also indicates that listening to the narratives led them to have a sense of "knowing the patient". The literature suggests that when the nurse "knows" the patient, as they exist in their own life story, therapeutic relationships are formed, and safe and effective nursing decisions about care are made (Johansson & Martensson, 2019).

RECOMMENDATIONS

The use of narratives from those with lived experience, in the role of expert-patient teachers, to develop empathy and compassion is about making human connections during experiential learning. This often leads students to an emotional state which increases their innate capacity to empathise and be compassionate, which is shown in our data. An educational intervention such as this could be included in nursing curricula to encourage experiences of empathy and compassion in nursing students.

Further research could be done, using pre- and post- data collection, to measure nursing students' attitudinal changes towards those who have experienced mental illness and/or addictions. Data would be collected before and after the educational intervention. Data for this study were collected about the responses of empathy and compassion at the time of the experience, whereas pre- and post-data would help establish if there were a change in levels of empathy or compassion. There is also scope to explore and understand how students move from empathy towards compassion.

CONCLUSION

Contemporary mental health and addictions teaching and learning practices should include the expert knowledge of those with lived experience. Although people with a lived experience have been used in undergraduate curricula for a number of years, it is mostly in the capacity of face-to-face teaching of a whole class, in curriculum development, or for assessment (Happell et al., 2015). The intervention in this study allows for an intimate experience, where the sharing of the narrative between the lived-experience participants and the nursing students has the capacity to positively influence the values and beliefs of the students (Corrigan, 2011). This could lead to delivery of care that is more compassionate, which meets the needs of those receiving the care, regardless of the health-care setting.

LIMITATIONS

This study used one small cohort from one nursing school. The study would have been made more credible by using a reliable tool to collect data. Using focus groups, or structured/semi-structured interviews, would also have provided more rich data, and would have added to the credibility of the data collection by allowing for triangulation. A quantitative approach ideally has pre- and post-testing, therefore a validated tool to measure empathy would have been required. This study, however, did not intend to measure the levels of empathy and/or compassion that the undergraduate nurses had, as this was part of the second year of learning, and other learning activities, that potentially influence empathy and/or compassion, had also been experienced by the study group (Levett-Jones et al., 2019).

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THE IMPACT OF TRANSFORMATIONAL LEADERSHIP ON NURSES' JOB SATISFACTION AND RETENTION: A LITERATURE REVIEW

ABSTRACT

Aim: The purpose of this literature review was to define the impact of transformational nursing leadership and its effect on nurses' work satisfaction and retention.

Background: Increasing nurses' job satisfaction is one of the main ways of improving clinical outcomes, providing high-quality patient care and increasing the retention of nurses in health-care organisations.

Methods: Six electronic databases were searched – PubMed, PubMed Central (PMC), Medline, Web of Science, Cochrane Library and EMBASE.

Results: Thirty articles were included in the literature review after applying the inclusion and exclusion criteria.

Findings: Nurses preferred leaders who displayed transformational leadership, and nurses who were more satisfied with their job were more likely to stay. The review findings underscored the value of the transformational leadership style for leading nurses and improving their job satisfaction and retention, and suggested the need for more commitment to teaching and improving positive leadership behaviour.

Conclusion: Nursing managers should capitalise on the value of transformational leadership to increase the work satisfaction of nursing staff. It is unknown how nurse managers will establish valuable leadership skills, and so further study is required to identify strategies to improve effective leadership traits in nurse managers.

KEYWORDS

Transformational leadership, job satisfaction, retention, nursing turnover, leadership impact on nurses

INTRODUCTION

There is a need for fundamental change across health-care organisations to create a work environment for nurses which is conducive to job satisfaction and wellbeing. Change is needed to the way leaders design the work, deploy personnel and align them to the organisational culture (Brown et al., 2013). Generally, these changes require nursing leaders to transform the physical work environment and the practices and beliefs of nurses in the workplace. This literature review aims to discuss and explain how nursing leadership can be important in transforming organisations, particularly in terms of the nursing workforce, to achieve efficient patient care and organisational goals.

BACKGROUND

The literature shows there are many reasons for high nursing turnover. Among the significant reasons are job satisfaction, personal reasons, leadership style, the nature of the work environment, workplace stress, and other managerial and organisational factors (Currie & Hill, 2012; O'Brien-Pallas et al., 2010).

Transformational leadership is defined as the process of encouraging or motivating a group of individuals to work together towards a common objective. It can be described as guiding employees to realise a vision through a plan (Collins et al., 2019). A leader's actions include a clear, long-term vision for the future and specific and unambiguous objectives that motivate subordinates to define their targets. In this sense, leadership is the process of inspiring others, particularly workers, to improve their abilities to achieve organisational success. Transformational leadership is a leadership style in which the leader recognises the need for change, develops a vision to drive the change through inspiration, and engages in positive behaviour to improve the commitment of the organisation's members (Collins et al., 2019).

Leadership styles have been identified as an important factor in nursing leadership (Currie & Hill, 2012), and have been recognised as a crucial factor affecting quality of care (Havig et al., 2011; Sandström et al., 2011). Leaders' qualities have also been directly associated with nurses' intent to leave and the turnover of nurses (Roche et al., 2015). Therefore it is important that nurse managers adopt leadership styles that will reduce high nursing turnover and increase job satisfaction (Roche et al., 2015).

In a New Zealand study, Moloney et al. (2017) examined the

reasons for nursing turnover to find out how to retain registered nurses (RNs) in New Zealand. This research found that nurses with supportive leaders were more satisfied with their work and were more likely to remain in their job. Many of the RN participants said they felt that successful leadership was a key factor in the retention of nurses. The nurses believed that managers needed to be passionate about what they did, and should share their expertise and talents, including a collective vision for supporting and improving nursing work roles (Moloney et al., 2017). A study conducted in New Zealand by North et al. (2012) concluded that the nurse turnover rate in New Zealand was 44.3 per cent over the 12-month period of data collection for their study. This rate is significantly higher than that of Canada (19.9 per cent), the United States (19.2 per cent) and Australia (15.1 per cent). However, North et al. identify limits in generalising this finding beyond the public hospital context of the study, given that the sample also included new-graduate nurses who contribute substantially to nurse turnover. Job strain, work/family conflict, a lack of control over work roles, a lack of rewards/recognition for their jobs, job complexity and the absence of team cohesion are all factors that contribute to nursing turnover.

METHODS

A systematic database search was conducted to answer the following question: *What is the impact of the transformational leadership style of nurse leaders on staff nurses' job satisfaction and retention?* The search was conducted from September to November 2020, with the following inclusion criteria: primary articles with full text available; written in English; and published within the last 10 years (2010-2020).

Information sources

Six electronic databases were searched: Medline, Web of Science, PubMed, PubMed Central (PMC), Cochrane Library and EMBASE. Thirty articles were eventually considered and retrieved from the databases for this study – 10 articles from PubMed, eight from PMC, five from Web of Science, five from Medline, one from EMBASE and one from Cochrane Library (see Table 1, below).

Table 1. Databases searched for relevant studies

Database	Relevant studies found	Date range for inclusion
PubMed	10	2010-2020
PubMed Central (PMC)	8	2010-2020
Medline	5	2010-2020
Web of Science	5	2010-2020
Cochrane Library	1	2010-2020
Embase	1	2010-2020
Total number of relevant studies	**30**	

Inclusion and exclusion criteria

Studies were included if:
(1) they were related to the effects of transformational leadership style on nursing staff's job satisfaction and retention,
(2) they were published between 2010 and 2020,
(3) they related to other leadership styles, such as transactional or laissez-faire leadership, to compare the impact of different leadership styles on the nursing workforce,
(4) they were primary (original research) or secondary (systematic literature review) research articles.

Studies were excluded if they were published before 2010 or were not published in the English language.

FINDINGS

The findings of this review show how supportive nurse-manager leadership styles are associated with increased nurses' job satisfaction and retention in health-care organisations (Abualrub & Alghamdi, 2012; Albagawi, 2019; Asamani et al., 2016; Banan, 2020; Cowden et al., 2011; Morsiani et al., 2017; Musinguzi et al., 2018; Suliman et al., 2020; Xie et al., 2017). Two key themes were identified in the literature: (1) the impact of nurse managers' transformational leadership styles on staff nurses' job satisfaction, and (2) the impact of nurse managers' transformational leadership style on staff nurses' job retention.

1. The impact of nurse managers with a transformational leadership style

The impact on nurses' performance

Transformational leadership techniques of nurse managers have a significant impact on nurses' performance. A study investigating the link between laissez-faire and transformational leadership (Albagawi, 2019) emphasises a significant positive relationship between nurse managers' transformational leadership style and staff nurses' level of satisfaction. Albagawi (2019) asserts that when nurse managers exhibit transformational leadership, staff nurses' level of job satisfaction grows. As such, nurse managers that show a transformational leadership style are likely to impact their staff's job satisfaction positively.

Leadership style and autonomy

The leadership techniques of nurse managers are critical to the job satisfaction of staff nurses. Considering the universal shortage of nurses, the rising cost of delivering health services, and increasing workloads, it is important to consider the types of nursing leadership styles (Asamani et al., 2016). Nurse managers use a variety of leadership styles, depending on the environment in which they work. Generally, staff nurses embrace supportive leadership techniques and participative leadership models (Asamani et al., 2016). Leadership style has significant implications for nursing management, education, practice and health policies. By finding a proper link between these factors, it is easier for nurse managers to enhance nurses' job satisfaction.

Professional autonomy is a significant element of the role of nurses in patient care. It refers to the power to make judgments, and the freedom to act, based on one's professional knowledge. Nurses in different parts of the world have differing perceptions of autonomy (Banan, 2020). The perception of many nurses regarding autonomy

is that leaders can turn it on or off through their leadership styles. Banan (2020) argues that there is a need to incorporate autonomy into nursing practice, rather than practising it occasionally. Further, nurses need to have a broad perspective and to actively contribute to writing hospital policies and guidelines. These guidelines and policies need to recognise the importance of autonomy in the training and practice of staff nurses. A transformational leadership style can motivate nurses to deliver services autonomously.

Empowerment and leadership methods

As well as their influence on staff nurses' job satisfaction, nurse managers showing transformational leadership also have an impact on patient safety. Improving patient safety is the key to effective leadership (Boamah et al., 2018). There is a strong positive correlation between transformational leadership and empowerment of staff nurses. Supportive leadership will increase nurses' job satisfaction; therefore, it will improve patient outcomes. As Boamah et al. (2018) suggest, there is a link between job satisfaction and low adverse events in health care. For this reason, there is a need for managers to employ transformational leadership traits to create favourable conditions for job satisfaction and patient safety.

Nursing leadership has a significant impact on the satisfaction of nurses. According to Bormann and Abrahamson (2014), the style of nurse leadership determines staff nurses' job commitment and hence their job satisfaction level. This finding suggests there is a need for both transactional and transformational leadership techniques in the training of nurse managers in the workplace.

Toxic leadership and quality working conditions

The transformational leadership style is highly associated with more positive nursing job outcomes. By contrast, toxic leadership, involving behaviours that are destructive or harmful to both organisations and individuals, is associated with nurse absenteeism, intentions of leaving the job, and decreased satisfaction in the workplace (Labrague et al., 2020). According to Labrague et al. (2020), health services' strategies to retain nursing staff should include encouraging transformational leadership in nurse managers and eliminating harmful leadership practices. This can be done by preparing nurse managers for their role, providing them with evidence-based education and supporting their career development.

In the context of job satisfaction, nurses' mental health status, job commitment, and commitment to the organisation are crucial factors. It is important to understand the potential positive impact of the model of transformational leadership on the quality of nurses' working conditions. Work relationships affect nurses' quality of life and well-being, and organisational-based factors have the potential to improve working life quality (Lin, 2015).

Long et al. (2014) investigated the correlation between staff nurses' job satisfaction and transformational leadership. Long found that the transformational leadership style was one of the most effective leadership approaches, with useful leadership traits. The characteristics of an effective leader include the abliity to consolidate or command respect from their followers. They improve nurses' job satisfaction by treating them as individuals. Transformational leaders act in a manner that stimulates and inspires their followers by providing them with meaning and challenge (Long et al., 2014).

Engagement and safe working

Engaging the nursing workforce is an essential technique for positively influencing their performance. Manning (2016) suggests that nurse managers who practice communication and support via transactional and transformational leadership have a significant positive impact on nursing engagement. There is also a relationship between nursing leadership styles and the safety of a working environment. Nurses need to be able to act autonomously in changing the working environment to enhance patients' safety. Nurse managers should be strategically positioned to promote the effective and efficient operation of hospital services. As Merrill (2015) notes, transformational leadership is essential to promote change needed to provide a safe working climate.There is a need for nurse leaders to focus on growing these positive leadership traits to maintain a safe working environment.

Teamwork and motivation

Teamwork is another significant factor in nurses' job satisfaction. Supportive leadership styles are crucial in instilling collaborative nursing practice (Negussie & Demissie, 2013). While it is not easy to master collaboration, transformational leaders understand that teams include a diverse range of people and resources, and they help staff develop and grow. Where there is team conflict, the influence of nurse leaders can make a difference. Team members usually come into conflict when they are competing with one another. Conflict leads to a lower level of team efficacy and a high level of negative emotion and distrust (Negussie & Demissie, 2013). As Negussie and Demissie note, transformational leadership is a significant factor in correcting team conflict in nursing.

Another study found the leadership style of nurse managers affected morale, motivation and staff retention (Musinguzi et al., 2018). The transformational leadership style has a significant positive influence on consolidating teamwork, stimulating motivation and creating job satisfaction. In contrast, laissez-faire leadership is characterised by passive behaviours such as lack of support or avoidance of situations, which can have a destructive effect on teamwork, and individual motivation and job satisfaction (Musinguzi et al.).

Emotional intelligence

There is a significant relationship between transformational leadership and emotional intelligence in nurse leaders, particularly in being able to manage relationships effectively. A descriptive exploratory study by Spano-Szekely et al. (2016) found that emotional intelligence correlated positively with transformational leadership among nurse managers in an acute care hospital. Outcome measures showed leaders are characterised by extra effort put into the leadership role, a higher degree of effectiveness and satisfaction in their role. There was also a positive relationship between transformational leadership techniques and advanced education in nursing management. Spano-Szekely et al. recommend that nursing administrators consider emotional intelligence when hiring nursing managers. They should also consider providing advanced education for nurse managers to help them develop the essential strategies for effective leadership.

Workplace wellbeing

Workplace wellbeing covers all aspects of an employee's working life, from the quality and safety of the physical environment to how they feel about their job, as well as the workplace culture, atmosphere and conditions. One study investigating the impact of transformational

leadership style on nurses' wellbeing at work shows that using transformational leadership to look after nurses and increase their workplace wellbeing will lead to better job satisfaction (Abualrub & Alghamdi, 2012). Nurses who exhibited more job satisfaction had the intention to continue working at their job.

2. The impact of the transformational leadership style on staff nurses' job retention

Creating a healthy environment

The leadership style of nurse managers increases staff commitment to an organisation and retention in the workforce (Kodama et al., 2016) through positive engagement in the workplace. Transformational leadership is responsible for motivating staff by creating a healthy work environment so staff are motivated even when the leader is not present. Nurse managers are aware of the different reasons for the lack of job satisfaction among nurses (Xie, 2017). Low job satisfaction can be caused by burnout or failure to be promoted, which can lead to nurses wanting to change career or retire. According to Xie (2017), the most common reason for job dissatisfaction is burnout. To improve job satisfaction and staff retention, nurse managers need to evaluate nurses' workloads, develop succession plans and provide career counselling. Nurse managers are responsible for the formulation and creation of a healthy environment that promotes staff nurses' job satisfaction and supports their professional nursing practice (Xie, 2017). Nurse managers' level of perception and understanding of leadership techniques significantly improves nurse retention (Suliman et al., 2020). Hence, there is a need for nurse managers to undertake practical and theoretical training programmes on leadership to reduce nurse turnover and increase retention. In creating a leadership succession style, nurse executives in health services need to understand nurse managers' satisfaction in their roles and their career aspirations.

Transformational components and retaining nurses

In terms of factors that affect nurses' retention, research evidence shows that transformational leadership significantly affects employee functioning. Transformational leaders are capable of elevating and extending what staff are interested in and increasing staff commitment to their work and to the values of the organisation (Lavoie-Tremblay et al., 2016). They are capable of leading staff to go higher than their perceived interests. On the other hand, destructive or abusive leadership has a direct detrimental effect on staff commitment and organisational values.

Cowden et al. (2011) researched the relationship between nursing leadership practices and the intention of staff nurses to retain their current positions. The findings of this study show there is a need for management to focus on nurse retention and to understand what influences it. There was also a significant positive relationship between the transformational leadership style, retention of staff nurses and a supportive working environment (Cowden et al., 2011).

Nurse managers need to use evidence-based strategies to retain nurses in their organisations (Choi et al., 2016). They also require an understanding of nurses' emotional responses to their work environment, ranging from joy at work to moral distress, which affects their desire to stay. Nurse managers' perception and understanding of these issues are significant causal influences on nurses' intention to remain in their job (Choi et al., 2016). In general, the transformational leadership style has a significant positive effect on a workplace, regardless of the number of hours staff work, the type of unit they work on, clinical experience or level of qualification (Lavoie-Tremblay et al., 2016).

Support and leadership education

Azaare and Gross (2011) found staff nurses were concerned about the leadership education of nurse managers, and that staff nurses wanted more constructive and coherent nursing leadership that promoted nursing autonomy. However, in this study, a significant proportion of nurse managers used minimal consultation in their managing of staff. Also, nurse managers were associated with the planning and implementation of weak policies, which led to staff nurses starting to lose trust in them and their job satisfaction declining.

This finding demonstrates the importance of ongoing education for nurse managers and other nurse leaders at all levels within health-care organisations (Amestoy et al., 2017). Amestoy et al. also emphasise the value of teaching the theory and practice of leadership at the undergraduate level prior to entry to practice so that graduates develop self-awareness to lead and know themselves as leaders, even as novice practitioners. While leadership is developed and strengthened over time, nurse lecturers and nurse managers are both important leadership role models for new graduates.

IMPLICATIONS FOR PRACTICE

Nursing leaders should make a deliberate effort to prioritise learning as a core aspect of their everyday activities, and strive to embrace and express a transforming mindset. Many of the factors associated with staff retention can be managed or affected by nursing leadership. Nurse leaders play a vital role in changing the nursing profession by improving job satisfaction and staff engagement and fostering a healthier work atmosphere. When hiring nurse managers, nursing administrators could lead the way by working with human resources staff to consider the emotional intelligence of applicants. They must use their experience and awareness of the leadership skills nurse managers require to ensure that academic nursing programmes at all levels match the operational needs of today's nursing leaders. They must use their experience and awareness of the leadership skills required by nurse managers to collaborate and teach academic nursing programmes that are related to the operational needs of today's nursing leaders. They could also petition their organisations for time, money and funding for education for nursing leaders, to strengthen their practice of transformational leadership. Transformational leadership will increase the work satisfaction and commitment of the nursing workforce to the institution more effectively while facilitating the common growth of individuals and organisations. Further, it can also help to attract nursing staff by shifting organisational culture to be more inclusive and therefore enhance their willingness to stay.

SUGGESTIONS FOR FURTHER RESEARCH

Future studies should explore the association between the specific components of transformational leadership and positive results to shed light on which behaviours are responsible for promoting the nursing workforce. Also, further research can explore how nurse

managers can develop useful leadership characteristics. The theory of transformational leadership provides an exciting framework to investigate how nurse leaders can better promote nursing performance and job satisfaction.

CONCLUSION

Health-care organisations are crucial social systems that put human resources at the forefront of their operations. Such entities require active employees and managers to attain the desired goals; thus, it is impossible to achieve success without their commitment and efforts. Leadership is central to this, since leaders are responsible for inducing followers to produce changes and also influence the nature of change. Effective and successful nurse managers are those that frequently demonstrate transformational leadership techniques. This type of leadership is positively linked with better job satisfaction among nursing staff and therefore better nurse retention. Nurses want better, proactive, independent and articulate leadership. An overview of some of the main ways by which transformational leadership increases nursing job satisfaction and retention is given in multiple key themes in this study. Overall, the findings of this literature review indicate that transformational leadership methods directly exercise their impact by encouraging nurse leaders and staff nurses to think about themselves and their tasks more positively, improving the quality of their relationships, and by building fair, respectful and welcoming work environments.

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NURSE PERCEPTIONS OF IMPLEMENTING STROKE GUIDELINES IN AN ACUTE STROKE UNIT

ABSTRACT

Aim: To identify nurse perspectives on the barriers to and the facilitators of implementing the nationally endorsed stroke guidelines, in a New Zealand acute stroke unit.

Background: In New Zealand, the burden of stroke is projected to increase. Clinical practice guidelines have been demonstrated to improve patient outcomes in stroke care. Nurses are key participants in implementing guidelines, as they provide 24-hour bedside care. The perspectives of nurses working with clinical practice guidelines, in an acute stroke unit in New Zealand, are yet to be established.

Methods: This study used an exploratory qualitative design. Data were collected in 2021 through a focus group with four nurses who worked in an acute stroke unit at a single hospital. The focus group was audio-recorded, transcribed and analysed for themes.

Findings: Barriers to the use of the stroke guidelines included limited resources, poor accessibility and a lack of knowledge of the guidelines. A wealth of nursing knowledge could also be a barrier to implementation of the guidelines. Facilitators included having a stroke nurse champion, nursing-specific guidelines and effective communication within the multidisciplinary team.

Conclusion: This research contributed to an understanding of the challenges and successes experienced by nurses using clinical practice guidelines in an acute stroke unit. Understanding the barriers and facilitators nurses may face when using clinical guidelines offers opportunities to enhance their use in nursing practice.

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KEYWORDS

Stroke nursing, clinical practice guidelines, stroke guidelines

INTRODUCTION

A stroke can be a devastating medical event. Recent estimates indicate that each year, around 9000 people in New Zealand will have a stroke (Ranta, 2018). The extent to which a stroke has an impact on a person's life is individualised and depends on the location, extent and severity of the damage; however, all who have a stroke are at risk of neurological impairment (Prabhakaran et al., 2015). Access to timely acute stroke care is crucial to achieve the best patient outcomes (Prabhakaran et al., 2015; Wu et al., 2018).

Over the past 30 years, clinical practice guidelines have become increasingly popular, as they enable the dissemination of current clinical recommendations, thus supporting the provision of organised, timely and evidence-based care (Murad, 2017). Guidelines are used in stroke care; however, it is yet to be established how they inform the practice of New Zealand nurses in an acute stroke unit. This study aimed to identify nurse perspectives on the barriers to and the facilitators of implementing the nationally endorsed stroke guidelines, in a New Zealand acute stroke unit. The purpose was to identify how the use of clinical guidelines in nursing practice may be enhanced.

BACKGROUND

A stroke, also known as a cerebrovascular accident, occurs when the blood supply in the brain is interrupted through a blockage or rupture of blood vessels: classified as an ischaemic or haemorrhagic stroke, respectively (Stroke Foundation, 2021). When an ischaemic stroke occurs, it is initially characterised by an ischaemic core; this is an unsalvageable area of tissue caused by the severe lack of blood flow at the centre of the stroke (Prabhakaran et al., 2015). Surrounding this core is a penumbra, which is characterised by a lack of oxygen and nutrients, and cellular dysfunction, but which remains temporarily salvageable and functionality can be recovered (Prabhakaran et al., 2015). Access to organised and coordinated management of stroke care, therefore, can improve health outcomes for patients who have a stroke (Langhorne & Ramachandra, 2020; Stroke Foundation, 2021; Wu et al., 2018).

Clinical practice guidelines are a recognised way of disseminating clinical recommendations to facilitate safe and timely care, thus promoting recovery from stroke (Stroke Foundation,2021). Guidelines are regularly updated with evidence-based recommendations to inform and improve health-care professionals' practice (Murad, 2017). In the specialty of stroke care, there have been a plethora of guidelines developed internationally by organisations such as the National Institute for Health and Care Excellence (England), the American Heart Association/American Stroke Association, and the Australian Stroke Foundation. New Zealand has contributed to, and implemented, the guidelines produced by the Australian Stroke Foundation. Recently, the title of these guidelines was updated to reflect the trans-Tasman partnership. They are now called the Australian and New Zealand Clinical Guidelines for Stroke Management (Mahawish et al., 2018; Stroke Foundation, 2021).

Common to all stroke guidelines are recommendations for the entire spectrum of care, from acute presentation through to rehabilitation. The guidelines typically include time targets for assessments, goals for physiological measurements, recommended treatments, suggestions for actions in response to an adverse event, and nurse-specific care (Stroke Foundation, 2021). A persistent challenge associated with all clinical guidelines, however, is keeping the recommendations up-to-date with the ever-growing body of primary research (Murad, 2017). For example, the 2017 stroke guidelines recommend patient mobilisation after 24 hours and before 48 hours, whereas an earlier version recommended mobilisation before 24 hours (Stroke Foundation, 2021). In an effort to reduce the lag between new research and updated guidelines, the Australian and New Zealand guidelines have been made a "living" document (Stroke Foundation, 2021). In contrast to previous practice, this means the guidelines are regularly updated, and health-care professionals are advised to check them frequently to ensure their own practice is based on current evidence (Stroke Foundation, 2021).

One of the aims of clinical practice guidelines in stroke care is to disseminate how to facilitate safe and timely care and recovery (Stroke Foundation, 2021). Adherence to stroke-based clinical guidelines decreases mortality, and patients experience less disability on discharge; nevertheless, there are several factors which influence nurses' use of stroke guidelines (Baatiema et al., 2017; Urimubenshi et al., 2017; Wu et al., 2018). Studies have shown that nurses were better able to implement stroke guidelines when they worked in an environment based on trust, and with good communication between colleagues (Donnellan et al., 2013; Purvis et al., 2014). Donnellan et al. (2013) highlighted that strong supportive clinical leadership, and having a person who was responsible for the implementation of the guidelines, promoted nurses' adherence to the recommendations in the guidelines. Additionally, training and professional development in stroke care helped nurses implement the guidelines effectively (Purvis et al., 2014). Conversely, poor communication, inadequate staffing or limited access to resources, equipment and professional development, affected nurses' adherence to stroke guidelines (Baatiema et al., 2017; Donnellan et al., 2013).

In New Zealand, there is limited research describing nurses' use of stroke guidelines; although, in general nursing, a New Zealand study found that the nurses' level of registration and education, and whether they had a positive attitude, had an impact on their use of evidence-based practice (Prior et al., 2010). Furthermore, another New Zealand study that explored physiotherapists' and occupational therapists' perceptions of the usefulness of the stroke rehabilitation guidelines, found that available resources and time, expertise and knowledge of the guidelines influenced the extent to which the guidelines were used (Mudge et al., 2017). If occupational therapists and physiotherapists encounter these challenges, it is plausible that stroke nurses may encounter similar challenges.

Nurses play a crucial role in patient monitoring and assessment, and escalation of care. They are, therefore, involved in most aspects of implementing stroke guidelines (Stroke Foundation, 2021). This study explored the use of the stroke guidelines by nurses in an acute stroke unit. The focus was the acute phase of stroke nursing care, which for an acute stroke unit covers the first week post-stroke (Stroke Foundation, 2021). The research question was: *What factors influence nurses' implementation of the nationally endorsed stroke guidelines in a New Zealand acute stroke unit?*

METHODOLOGY

A qualitative descriptive design was chosen to answer the research question. This approach allows participants' voices to be clearly heard and facilitates researcher transparency in the portrayal of their perspectives (Sandelowski, 2000). The research setting was an acute stroke unit in a New Zealand hospital. To ensure participants had sufficient experience to draw on, convenience sampling was used to recruit registered or enrolled nurses, who worked in the unit at least twice a fortnight. Recruitment was by way of a general email and posters in the common areas of the wards associated with the unit. Nurses were asked to contact the student researcher if they were interested in participating; the researcher then emailed them further information about the study. The aim was to recruit a minimum of eight participants for two focus groups (four nurses in each). However, only four participants were recruited, which was likely due to workload stress during the COVID-19 pandemic.

Data were collected through a semi-structured, audio-recorded focus group interview with four nurses (see Table 1, page 34, for questions). This approach meant nurses could collectively share their experiences and enabled further exploration of their ideas. The one-hour focus group was facilitated by the student researcher, in a private hospital room, and at a time suitable to the participants. Participants also answered demographic questions.

Data were analysed using Braun and Clarke's (2012) steps

for thematic analysis, which is an accessible method to draw findings from the data. The student researcher led the analysis with input and discussion from two experienced supervisors. The first step involved familiarisation with the transcribed data, by reading the transcript several times and then assigning preliminary codes. These initial codes were then inductively categorised according to similarities and patterns: overlapping and redundant codes were removed. From these categories, themes were identified, refined and described. The final step was presenting the themes as a coherent story to answer the research question (Braun & Clarke, 2012).

Table 1. Interview questions

1. Can you tell me what you do on a typical day in the unit?
2. Can you tell me about your understanding of the stroke guidelines used in the unit?
3. What are your experiences of using the guidelines?
4. How do these guidelines influence your nursing practice?
In your experience: 5. Are there benefits of using the guidelines for the nurse? Do you have examples? 6. Are there benefits of using the guidelines for the patient? Do you have examples? 7. Are there challenges in implementing the guidelines? Do you have examples?
8. In your scope, how do you use your clinical reasoning within the guidelines?

To promote trustworthiness in this research, the student researcher debriefed regularly with her supervisors to ensure she was being true to the data and avoiding bias in the interpretations (Lincoln & Guba, 1986). Quotes from the data are used to illustrate the themes and provide the reader with the opportunity to assess whether the findings may be applicable to their setting. The participants were given the chance to clarify their perspectives at the end of the focus group.

Ethics approval for the study was obtained from the University of Otago Ethics Committee (D21/043) and the hospital (01757). All participants were given comprehensive information about the study, and all gave informed written consent. To assist with confidentiality, the location of the study and participant names are omitted. In an effort to promote a safe and confidential environment, the charge nurse manager and the associate charge nurse manager were not invited to participate, as employees may not be as willing to speak freely when there is an unequal power relationship.

FINDINGS

Four female nurses with at least six years of general nursing experience contributed to the findings of this study. There was a range of stroke nursing experience, from less than 12 months to 10 years. The frequency that each nurse worked in the acute stroke unit generally varied between one to four days each week. All nurses had engaged in either formal or informal stroke education, and three of the nurses had either completed or were engaging in, postgraduate study.

Initially, the researcher intended to only explore the use of the Australian and New Zealand Clinical Guidelines for Stroke Management. However, at the beginning of the focus group, it became apparent that this scope was too narrow. After some discussion in the focus group, it was established that the guidelines' recommendations had been formatted to suit the needs of the participants' hospital and the nursing discipline. The findings presented here encompass the use of the guideline recommendations in both their original and formatted form. Four main themes were identified:

1. Engagement with the guidelines.
2. Accessibility of the guidelines in the acute stroke unit.
3. The synergy within the MDT.
4. The ward environment.

Together, these themes provide a small insight into the perspectives of four nurses using the stroke guidelines to provide patient-centred and evidence-based care. Excerpts from the focus group data are used to illustrate the themes.

Engagement with the guidelines

The nurses all agreed that in principle, the guidelines were useful as a prompt and structure for their nursing care. However, the nurses' engagement with the guidelines varied depending on their clinical experience. One of the senior nurses believed that the provision of timely, evidence-based care was her responsibility, and this required a sound understanding of the stroke guidelines used in the unit. However, other nurses in the group suggested that experienced nurses could be reluctant to familiarise themselves with updated recommendations within the guidelines, particularly if changes to practice were not disseminated well.

> *"I didn't make myself familiar with it, didn't go to the in-services. It probably took me a while to adjust . . . it probably took a while for a few nurses to change . . . nurses can be hard to change sometimes" .*

The nurses explained that those new to stroke nursing, or the unit, might not engage with the guidelines due to being unfamiliar with the environment and the associated stroke nursing resources. Instead, the senior nurses were often a quick source of information, as opposed to the time-consuming process of searching for, and accessing guidelines.

> *"I didn't know for stroke patients you have to get their blood sugar, even if they aren't diabetic. I didn't know that we have to take an ECG but it's actually in the guidelines . . . I think not everyone knows about it."*

"If you haven't looked after stroke patients before it's very, well, quite anxious . . . there's like a pathway when the patient comes . . . if I'm still not sure, I usually ask some senior nurse."

The more experienced nurses reflected that as their confidence in their clinical judgment and stroke nursing practice grew, they engaged less actively with the written guidelines. One experienced nurse reflected that she felt that her knowledge of the nursing expectations within the guidelines had been sufficiently developed. The nurses also explained that clinical judgment required sound assessment skills and the ability to recognise patient deterioration, which might not be encapsulated by the guidelines.

"I wouldn't readily reach for [the written guidelines] . . . a lot of it is second nature . . . I just [would look] to double check that I'm 100% correct in my mind."

"Our clinical judgment is very important, and the guidelines somehow everything is there, so your clinical judgment will be based on what you see in the patient . . . because you could say that the vital signs are ok but then the patient doesn't feel good."

The nurses also discussed the need to balance guideline implementation with their own clinical judgment. There was a suggestion that over-adherence to the guidelines could result in missed care, or unnecessary precautions being taken.

"I find . . . they could deteriorate fast, or they could get better. Clinical judgment is very important in stroke patients."

"With blood sugars, probably no one is going to panic if there's one reading just above 10mmol but if there's a trend, well, you'd expect that hopefully, the nurses and the medical team will be picking up on that."

Importantly, clinical judgment is recommended in the guidelines themselves, which states that the guidelines should be used to support the judgment of the professional, in the context of the individual patient (Stroke Foundation, 2021).

Accessibility of the guidelines in the acute stroke unit

The nurses spoke about the burden of documentation associated with stroke care. They explained that the number of resources on the hospital database could be overwhelming; thus, unfamiliar documents such as the national stroke guidelines were not necessarily a realistic source of information.

"We use the care plan, and we have the admitting document the patient comes in with . . . Then I will just use any other document [on the hospital database] related to that patient."

In an attempt to increase the accessibility of the national stroke guidelines, a senior nurse had collated the applicable nursing guidelines into a single document. She explained her reasoning:

"The idea was that nurses could refer to this when they use the nursing care plan . . . so if nurses were unfamiliar, they could look at this . . . just to try and be a wee bit more structured about the care of the patient and to get everyone on the same page."

A number of challenges, however, arose from this collation of the guidelines, in that some nurses did not necessarily know the evidence base informing their actions. Furthermore, the formatted guidelines were not regularly updated; this meant the guidelines could be outdated. Additionally, accessibility was hindered as the formatted nursing document was not on the hospital database, which is where most nurses searched for information. The nurses were, however, motivated to discuss ways to increase the accessibility of the guidelines, as they recognised the value that guidelines brought to nursing care.

"Your information is on [the hospital database system] . . . I think if we had this readily available it would be really helpful!"

Synergy within the multidisciplinary team

The nurses discussed the importance of communication and teamwork within the multidisciplinary team (MDT), to provide effective stroke care. They also spoke about the important role each MDT member played in the adherence to guideline recommendations, and towards a patient's recovery. This was particularly pertinent if divergence from the guidelines might be warranted.

"*You'd discuss it with the patient's medical team and the MDT if you thought there was something that you needed to do that might be outside of the guidelines."*

The nurses also discussed how use of the guidelines, when communicating with the MDT, strengthened their ability to advocate for patients, and promoted teamwork within the MDT.

"It's really helpful because I can be like 'okay doctor this is the protocol'. I have evidence to be like, 'this is what we need, and this is why we need it because we need their BP in these parameters' . . . Gives what you are saying more strength."

However, coordination of the MDT could be challenging for the nurses, especially during the weekends as there was less MDT input. Other team members may also lack specialist stroke knowledge or skills; as a result, nurses may need to advocate for the patients, to ensure that care was provided in line with the guidelines.

"No MDT after hours and weekend . . . Only one physio on for the whole hospital adult service so they just can't come and help you mobilise the patient so that patient might not be mobilised until Monday morning."

"We already put in the task list for the doctor to chart some intravenous fluids as patient was NBM [nil by mouth]. . . this doctor never came . . . again I asked . . . then they came to check the ECG and they decided to start IVF . . . he was NBM for like 4-5 hours."

The ward environment

The nurses discussed how the pulse of the workplace, exemplified through time pressures and heavy workloads, meant implementing the guidelines could be challenging. Meeting the ideal timelines,

outlined in the guidelines, was particularly difficult when they were busy.

> *"It's the workload as well . . . cause sometimes you get other medical patients . . . if you have an acute stroke patient . . . if someone is post thrombolysis, one on one is ideal . . . If you've got 2 quite new or heavy stroke patients, it should be just 2 patients to a nurse but that also never happens."*

A lack of bed space, combined with the slow movement of patients to a rehabilitation ward, was also discussed as a barrier to consistent and timely guideline implementation.

> *"Our patients don't move in a timely fashion into a rehab bed . . . sometimes they do but not . . . nearly as often as they should . . . It could be three days, or it could be seven days".*

The nurses talked about the importance of developing specialised assessment skills, to promote safe decision-making in line with the guideline recommendations. It was apparent, however, that education opportunities were lacking, which acted as a barrier to the implementation of guidelines. There was also a mutual agreement that the high turnover of ward staff hindered not just the dissemination of the guidelines, whether by email or in person, but also the upskilling of nurses. This made it particularly difficult to maintain the level of expertise required for working in the stroke unit.

> *"But the thing is not everyone knows about it [guidelines]. I think education is very important".*

> *"Trying to train nurses . . . we sort of constantly train but we constantly lose . . . so that's a barrier to meeting that guideline . . . it's hard to keep up when a lot of the nurses aren't trained to do that".*

DISCUSSION

This study explored nurse perspectives on the barriers to and the facilitators of implementing the nationally endorsed stroke guidelines in a New Zealand acute stroke unit. Depending on the context, influencing factors could either be a barrier or a facilitator. Although initially it appeared that the nurses were not aware of the national stroke guidelines, further discussion revealed they were nursing according to the guideline recommendations. This finding is not unique, as other studies report that health professionals may struggle to articulate the specific underpinnings of their practice (Donnellan et al., 2013; Mudge et al., 2017).

There was unified agreement, within the focus group in this study, that consistently high workloads placed unrealistic time pressures on the nurses to implement the guidelines, especially if they were unfamiliar with them. The nurses also emphasised that a lack of staff, particularly after hours and at weekends, and a lack of bed space, affected the timeliness of care recommended by the guidelines. Insufficient resources, whether time, staffing or bed space, are common challenges faced by nurses, which hinders guideline implementation (Donnellan et al., 2013; Mudge et al., 2017; Purvis et al., 2018). In the context of this present study, there was a high staff turnover which meant that nurse expertise and knowledge were not always retained. According to Mudge et al. (2017), if staff expertise is lost, this exacerbates pressure on staff, and affects their ability to implement, disseminate and provide nurse training on the guidelines.

The nurses in this study suggested that teamwork within the MDT could influence the use of the stroke guidelines; this reflects the literature which shows that when communication is facilitated in the MDT, implementation of the guidelines is promoted (Mudge et al., 2017). While it is acknowledged, in the wider stroke literature, that communication and team culture within the MDT are important in the provision of evidence-based care, little is known about the true contribution of the MDT in relation to guideline implementation (Donnellan et al., 2013). In this present study, the nurses acknowledged that although communication with the MDT was not always perfect, when it did occur, it was a significant contributor to the provision of timely, guideline-informed care.

The findings in this study showed that nursing experience could be both a barrier and a facilitator of the implementation of the guidelines. It was apparent that experienced nurses were more confident in their knowledge of the guidelines; appropriate and timely nursing care occurred when the guidelines were held in balance with clinical judgment. These nurses could, however, be more reluctant to update their practice in accordance with the latest research. Conversely, another senior nurse in this study had endeavoured to improve adherence by formatting the guidelines to be applicable to nurses in the local context, which is a key step in knowledge translation (Curtis et al., 2017). However, translating and formatting the guidelines to be more applicable to ward staff meant the stroke guidelines became static as opposed to "living" guidelines. While the purpose of "living" guidelines is to help facilitate the translation and implementation of scientific knowledge into clinical practice, it was apparent that it did not sufficiently bridge the gap for the nurses in this study (Stroke Foundation, 2021).

Understanding the interaction between clinical practice guidelines, nurse decision-making, and clinical judgment requires nuanced discussion. In the wider literature, novice nurses tend to rely upon clinical practice guidelines more than experienced nurses, as a source of clinical judgment, and to support their decision-making (Nibbelink & Brewer, 2018). When experienced nurses make decisions in patient care, they tend to use guidelines as part of their wider nursing skills, such as intuition, past experience and a holistic view of the patient situation (Nibbelink & Brewer, 2018). The Australian and New Zealand Clinical Guidelines for Stroke Management have a disclaimer that they should be used in partnership with, and not replace, clinical judgment (Stroke Foundation, 2021). This is important, because evidence informing the recommendations in the guidelines can be of variable quality. Critiquing the quality of the evidence in the guidelines is therefore important, especially if they have been formatted to be applicable and more accessible to nurses on a ward.

As with any clinical practice guidelines, adherence is promoted through the employment of people who are experts in the area (Purvis et al., 2018), which reflects the finding in this study that a key facilitator was having a senior nurse with a special interest in stroke care. Nurses with a special interest can champion change through education, updating the clinical guidelines and auditing adherence on the ward (Purvis et al., 2018). In this study, there was at least one senior nurse with special stroke knowledge, yet implementation of the guidelines and the "explicit" nursing knowledge of the guidelines was suboptimal. This highlights that while improvements in one area

can promote guideline adherence, more than one intervention is necessary for change to occur. Although the influence of the MDT, ward environment and individual nurse expertise are important to consider, this should not undermine the role of a specialised stroke nurse; they can be instrumental in the provision of nursing care which is informed by clinical guidelines. Their oversight of the unit can facilitate change and ensure that nurses are maintaining a high standard of care (Donnellan et al., 2013; Purvis et al., 2018). According to Purvis et al. (2018), the benefits of a specialist stroke nurse have the most effect in a hospital with a stroke unit. In New Zealand, however, only 70 per cent of hospitals that admit acute stroke patients have an acute stroke unit; 64 per cent have a stroke clinical nurse specialist, and 40 per cent a stroke nurse educator (Thompson et al., 2020).

RECOMMENDATIONS

Within the wider realm of stroke care, adherence to stroke guidelines was more likely to occur when there was a coordinated team effort, or when a stroke nurse, with specialised stroke knowledge and experience, was involved in the coordination of care (Purvis et al., 2018; Wu et al., 2018). Including the relevant nursing guidelines during orientation to the stroke unit may be beneficial. Prioritising and resourcing nursing education may also enhance nurses' use of clinical guidelines and improve adherence (Purvis et al., 2018). Support from senior staff and the wider MDT to implement guidelines is also required, because change cannot happen in isolation from the context in which it occurs (Curtis et al., 2017). Designating the responsibility of updating the guidelines to a health professional is recommended if the guidelines are to be a "live" document, and a reliable source for wards to use. Employing and resourcing specialist stroke nurses may also promote engagement with clinical guidelines, and ultimately, improve patient outcomes (Donnellan et al., 2013; Purvis et al., 2018).

Further exploration of the factors that affect nurses' use of the guidelines in practice would further our understanding of this topic. Studies to investigate whether, and how, the stroke guidelines promote the provision of equitable care in New Zealand would also be beneficial.

LIMITATIONS

This was a small qualitative study in one setting; therefore, the implications and recommendations might be limited. The researchers acknowledge that in the focus group, the experienced nurses had more to say than the less experienced nurses.

CONCLUSION

Clinical guidelines promote evidence-based, timely care for the improvement of stroke outcomes. Nurses play an important role in the care of the acute stroke patient and are therefore in an ideal position to promote engagement with the national stroke guidelines in their unit. While clinical guidelines are useful in the workplace, true change can only occur if up-to-date, evidence-based practice is seamlessly integrated into practice. Establishing ASUs in New Zealand has been a good starting place for the improvement of patient outcomes. These outcomes can continue to be improved if the organisations that provide stroke care enable nurses to upskill, and to critically and consistently integrate the guidelines into their everyday nursing practice.

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Research brief

NURSE PRACTITIONERS: DOES HOME VISITING IMPROVE OUTCOMES FOR PEOPLE LIVING WITH LONG-TERM CONDITIONS

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Keywords

Nurse practitioner, home visiting, long-term conditions, health outcomes

Aim

THE AIM of this integrative review was to explore the potential for nurse practitioners in New Zealand to visit people diagnosed with long-term conditions in their own homes.

Background

Prevalent long-term conditions such as diabetes, hypertension, chronic respiratory diseases, dementias and chronic renal and liver diseases require complex and ongoing care (Ministry of Health [MoH], 2020; World Health Organization, 2016). This places pressure on the health-care system, as this group are high users of health and disability services (MoH, 2015). Furthermore, there are higher incidences of long-term conditions in lower socioeconomic areas, as well as in Māori and Pasifika populations and among people aged over 65 (MoH, 2015).

The health management of these patients in New Zealand is driven by primary care, led by general practitioners (GPs), with support from practice nurses and registered nurse prescribers (Minister of Health, 2016). However, front-line staffing shortages have led to unprecedented work pressures, especially in primary care (Minister of Health, 2016). One way of addressing a shortage of GPs is to provide primary care within a nursing model (Carryer & Adams, 2017).

The purpose of this integrative review was to evaluate whether home-visiting nurse practitioners could improve outcomes for people living with long-term conditions in New Zealand. This review may be of particular interest to health policymakers, GPs and nurse practitioners.

Method

The integrative review methodology for synthesis of evidence enables results of qualitative, quantitative and mixed methods nature to be drawn on to develop recommendations for best practice (Methley et al., 2014; Whittemore & Knafl, 2005). Electronic databases (Cumulative Index of Nursing and Allied Health Literature [CINAHL], PubMed, Science Direct, Joanna Briggs Institute [JBI], DynaMed, Gale, Mednar and Core and Google Scholar) were searched to obtain conceptual saturation – a concept derived by Thomas and Harden (2008). A total of 16 primary research studies met the inclusion criteria. Data analysis was inductive and followed Thomas and Harden's (2008) three stages for thematic synthesis.

Findings

Findings of the integrative review were developed into three themes that support nurse practitioner visits for people living with long-term conditions.

Theme 1: Reduced barriers to care

When health care is provided in the home of the patient, access to care is improved, reducing subsequent acute care or emergency department presentations (Buerhaus et al., 2018; Coppa et al., 2018; Jones, DeCherrie et al., 2017; DesRoches et al., 2017; Echeverry et al., 2015; Enguidanos et al., 2012; Ghimire et al., 2021; Hall et al., 2014; Smith et al., 2016; Takahashi et al., 2016; Trilla et al., 2018). Ghimire et al. (2021) report that where patients have a history of poor engagement with health services and non-adherence to prescribed plans of care, they improve their level of engagement following a single home visit from a multidisciplinary team including a nurse practitioner. Making an appointment in the patient's home can be the first step in creating a trusting and therapeutic healthcare provider/patient relationship (Takahashi et al., 2018). Important factors emerged about care delivery, including patients' perceptions that nurse practitioners are able to provide more holistic care than GPs (Lovink et al., 2018).

> *"There is a different consultation in a patient's house and although they have never said it, I think they [the GPs] perhaps feel a little uncomfortable with that type of consultation".*
>
> (Participant Hayley; Wells & Tolhurst, 2021, p. 790).

Nurse practitioners visiting patients at home, post-discharge from hospital, reduce preventable readmissions (Coppa et al., 2018; Echeverry et al., 2015; Hall et al., 2014; Jones, DeCherrie et al., 2017; Smith et al., 2016; Takahashi et al., 2016; Trilla et al., 2018). The outcome of a reduction in health care seeking due to timely nurse practitioner interventions is improved quality of life for patients and a reduction in health-care spending (Coppa et al., 2018; Echeverry et al., 2015; Hall et al., 2014). Barriers to care are perceived by patients as the cost of health-care services and a lack of access to transportation (Cram, 2014). A home visit from a nurse

practitioner can improve appointment attendance rates (Ghimire et al., 2021) by reducing barriers to care and building therapeutic relationships with patients in ways such as spending time and considering cultural and whānau needs.

Theme 2: Improved health and quality of life

Patients reported improved health and quality of life with home visits from a nurse practitioner. Reasons for this include improved health literacy, improved daily function (Takahashi et al., 2018), improved medication compliance (Ghimire et al., 2021) and decreased symptoms (Echeverry et al., 2015; Enguidanos et al., 2012). Barriers to self-efficacy are health literacy, access and support (Farley, 2019). When care is provided in the home, education can be based on the health practitioner's observations, such as what food is in the cupboards and where medications are sourced from and how they are stored (Takahashi et al., 2018). Home visits by nurse practitioners create an equitable service that changes the dynamic of power between the health-care professional and the patient. As one patient suggested,

> *"I think that I'm more relaxed in my own home, and I can think better".*
>
> (Patient 14; Takahashi et al., 2018, p. 20).

With improved health literacy comes improved self-efficacy. Patients receiving nurse practitioner home visits reported a 44 per cent improvement in physical function, 40 per cent reduction in symptom frequency, 54 per cent improvement in quality of life and 44 per cent overall improvement (Echeverry et al., 2015). Medication adherence improved by 36 per cent and self-efficacy improved after a home visit by a multidisciplinary team or nurse practitioner (Enguidanos et al., 2012; Ghimire et al., 2021). Empowering patients in the home to become more self-sufficient improves adherence to treatment plans.

Theme 3: Role ambiguity

While there is support for the nurse practitioner role from physicians and GPs (Jones et al., 2017; Jones, Ornstein et al., 2017, Takahashi et al., 2018), there continues to be a lack of understanding about the nurse practitioner scope of practice and level of capability and accountability (Bailey et al., 2006; Collins, 2019; Wells & Tolhurst, 2021). However, the attitude of physicians is generally positive, acknowledging the way nurse practitioners can work alongside GPs to enhance patient outcomes (Jones, DeCherrie et al., 2017; Jones, Ornstein et al., 2017, Takahashi et al., 2018). As one GP suggested,

> *"We tend to see them all as equal, but they do have different experiences and abilities".*
>
> (GP focus group participant; Collins, 2019, p. 6)

Although patients lack clarity about the nurse practitioner's role, they are generally accepting of them because, from the patient's perspective, they are receiving the care they need (Collins, 2019). Patients describe nurse practitioners as good listeners who are knowledgeable about their situation, help them fulfil their needs and goals and improve their quality of life (Takahashi et al., 2018). One nurse practitioner participant noted,

> *"Patients identify with what you are doing, not what you are saying".*
>
> (Advanced nurse practitioner interviewee; Collins, 2019, p. 6)

Role clarity for nurse practitioners and effective relationships within teams are pivotal to promoting teamwork in health care, which in turn enables high-quality patient care and increased patient engagement (Kilpatrick et al., 2021). Nurse practitioner visits also increase clinic attendance for patients who have low engagement with health services (Ghimire et al., 2021). When nurse practitioners support complex hospital discharges with home visits, this alleviates some of the pressures on primary, secondary and tertiary-care services while providing equitable care.

Discussion

The findings from this integrative review provide significant insight into how health-care practice in New Zealand could be tailored to meet the population's needs. Taking care to the home of patients is consistent with the New Zealand Health Strategy's "closer to home" theme (Minister of Health, 2016). Priority groups such as Māori, Pasifika, people of lower socioeconomic status and the elderly are more likely to be readmitted to hospital (MoH, 2015). Although long-term condition management in New Zealand is focused on primary care (Minister of Health, 2016), the findings of this review can also be applied to settings other than primary care. Home-visiting nurse practitioners have a place in secondary-care long-term condition management, in outreach services and in supporting discharge from hospital to home. Nurse practitioners are likely underutilised in New Zealand because of ambiguity about their potential contribution. Education is needed to improve knowledge about their potential contribution to managing long-term health conditions (Carryer & Adams, 2017).

Recommendations

Nurse practitioner home visits should be targeted towards priority populations in New Zealand including Māori and Pasifika, lower socioeconomic communities and those aged over 65, to reduce equity gaps.

A retrospective cohort study should be conducted to review health-care seeking activities for each of the priority populations, and compare this with acute-care presentations for the same groups.

The potential capability of nurse practitioners to improve outcomes for people living with long-term conditions should be communicated to policy-makers and funders of health services. Practice models also need to change to more fully encompass the diverse multidisciplinary roles and responsibilities of the health team.

Conclusion

The findings of this integrative review indicate that home visiting nurse practitioners improve outcomes for people living with long-term conditions. Health policy focus should include home-visiting nurse practitioner models of care for people with long-term conditions. The three themes identified would be useful to consider when incorporating home visits by nurse practitioners into the New Zealand health-care model.

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HOW TO CONDUCT A RIGOROUS DATABASE SEARCH IN 10 STEPS

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Introduction

INTERNATIONAL HEALTH databases hold a vast array of information for nursing. But a nurse researcher cannot access and use this wealth unless they know how to conduct an advanced database search. To bring together the best quality and spread of data for a research project, a search must be rigorous, and both narrow enough to exclude what is not relevant, and wide enough to capture a spread of results to eliminate bias. The level of rigour is important if a researcher is going to make claims based on a review of the literature. For nurses studying at master's level, there is now an increasing expectation that their academic work should include details of how they conducted their literature searches to show their understanding of the search process. Lecturers teaching postgraduate nursing students are involved in coaching emerging researchers in more advanced search skills. Librarian Kate Reynolds and nursing academic Patricia McClunie-Trust have worked with publisher representatives to develop database search strategies for postgraduate students undertaking their first in-depth evidence review. In this article they describe how to go about an advanced search, using the example of a research project being conducted by registered nurse Dan Isaak.

Evidence reviews

Clinical decision-making and the development of clinical guidelines are informed by robust summaries of evidence. These summaries are developed using various methods, such as systematic reviews, meta-analyses, and qualitative evidence synthesis (Moher et al., 2015). The process used to conduct a database search affects the overall quality of evidence synthesis (Eriksen et al., 2018) because it is important to find and synthesise all evidence that is relevant to the review question. However, there is also a need to balance a comprehensive search with inclusion and exclusion criteria that will select only those studies that are relevant (Gusenbauer & Haddaway, 2020). Minimising the risk of error and bias by following rigorous methods is what differentiates systematic reviews and evidence syntheses from other reviews of the literature (Aromataris & Munn, 2020).

The identification of evidence requires the application of the right strategy in the right search systems (Gusenbauer & Haddaway, 2020), along with a clearly defined systematic search process (Moher et al., 2015). Well-ordered approaches to literature searching, based on predefined criteria, are key to finding appropriate research as evidence for practice. Finding a balance between making a database search specific, and yet sensitive enough to find appropriate studies for inclusion in a review, can be challenging (Bramer et al., 2018). However, the search process for a systematic review should be transparent, informing the reader why certain studies were included or excluded from the review. As information specialists, librarians are important guides for researchers seeking to understand how to construct a specific search strategy across selected databases (Cooper et al., 2018). Cooper et al. note that missing relevant studies could introduce bias into the review results, including exaggerating

the effect of an intervention study. However, there is some debate in the literature about the scope of literature searches, particularly in relation to qualitative reviews, where the quality of primary studies may be more important than the quantity.

The search process in published evidence reviews generally includes three phases, including developing the concepts and search process with a librarian, conducting the search across appropriate databases for the topic of the review, and finally undertaking a "hand search" of the references included in the studies selected for the review. Bramer et al. (2018) set out 10 steps to work through to create and conduct a systematic search, to underpin the three phases reported in systematic reviews. Here, we use an example of a search conducted for a meta-synthesis, using meta-ethnography as the methodological approach.

Step 1. Identify a focused question.

The search strategy builds on the review question, which should be formulated according to the type of research sought for the review. Dan Isaak, a registered nurse (RN) in the intensive care unit (ICU) at Wellington Hospital, wanted to understand more about nurses' experiences of providing end-of-life care in the ICU. Therefore, the question for his review was simply stated as: *What are registered nurses' lived experiences of end-of-life care in the ICU?*

Step 2. Distinguish the type of articles or primary research reports that can answer the question.

The aim of this review was to understand how RNs experience working with patients and families in end-of-life care situations, so Dan sought qualitative primary research that included rich participant voices sharing participants' feelings, emotional responses and understanding of their experience, to answer his question.

Step 3. Decide which key concepts define the different elements of the question.

The PICO format is the most common approach to framing a review question, usually structured as **P**opulation, **I**ntervention or exposure, **C**omparison intervention or exposure, and the clinical **O**utcome or interest (Eriksen & Frandsen, 2018). However, as Munn et al. (2018) note, it is important to also consider questions that take a broader approach to what counts as evidence for evidence-based care. This review required an experiential and qualitative approach to investigate the meaningfulness of experiences related to a phenomenon of interest, so the PICo for Dan's question was framed as **P**opulation, phenomenon of **I**nterest, and **Co**ntext.

Step 4. Identify which elements of these concepts should be used to locate the best results.

Table 1, below, sets out the PICo structure that was used to frame the search for primary qualitative research on RNs' lived experiences of end-of-life care in the ICU.

The population for this search was RNs, without any limits on gender, age, ethnicity or country of publication for primary research. The experiences of patients, families, health-care assistants or nurses with other levels of registration were excluded. The phenomenon of interest was RNs' experiences of caring for patients in end-of-life care situations. End-of-life care was defined as holistic support provided to people and their families when death is imminent. The term "palliative care" was excluded from the search because it occurs in a different context, with a defined philosophy of care in the community. Primary research with rich participant descriptions was sought to illuminate RNs' feelings, emotions and perceptions of end-of-life care. The context was end-of-life care for adults in the ICU, and other intensive-care contexts, such as the neonatal intensive care unit (NICU) and paediatric intensive care unit (PICU) were excluded. The inclusion timeframe for primary research was since 2010, to find studies reflecting contemporary practice.

Step 5. Choose an appropriate database to trial the search.

Database search systems need to effectively find relevant information while filtering out what is not relevant, enabling rapid identification and retrieval of records. The search methods should enable the same search to be reproduced using the same methods (Gusenbauer & Haddaway, 2020). Gusenbauer and Haddaway recommend 16 potential databases to use as the principal approach to refine the search process. PubMed and CINAHL are two of the databases listed which we recommend to our students, as they are specialised and yet multidisciplinary across the health sciences. Furthermore, their search interface supports systematic searching and enables the researcher to have a high level of control over the scope and focus of the search. CINAHL and PubMed have a controlled vocabulary to

Table 1. PICo structure

PICo	Concepts	Additional key words
Population	Nurses	Registered nurses, RNs
Phenomenon of **I**nterest	End-of-life care	Death, dying
	Experience	Lived experience, attitude perceptions, emotions, needs
Context	ICU	Intensive care units, acute care
Exclusion	Patients, family, NICU, PICU, child, paediatric, palliative, pre 2010, quantitative	

draw on to identify search terms, and the search can be developed using Boolean operators and field tags, and a range of further filters can be applied.

Steps 6 - 9. Document the search process, select index terms from the first database, identify synonyms from the database thesaurus or identify MeSH terms, and include variations in the spelling of search terms including abbreviations, truncations and Boolean terms.

Librarians can use their knowledge of databases, information sources and search strategies to both teach systematic search skills and help with the search itself. Librarian involvement in the search process will result in more thorough and replicable searches of a greater range of databases and information sources (Vasser et al., 2017). Librarians can assist in each of the systematic review steps, from formulating the problem to the assessment of study quality, as well as locating, selecting, and managing resources (Harris, 2005). Including information professionals, such as librarians, in a search process can result in a higher quality of evidence synthesis (Vasser et al., 2017). In this search, the librarian helped with the selection of keywords and controlled vocabulary, recommended relevant databases to search and provided advice on the formulation of search strings.

The formulation of search strings requires knowledge of a range of precision searching techniques, such as the Boolean operators AND, OR and NOT; field tags; truncation; phrase searching; and controlled vocabulary. In the search strings shown in Table 2 (below) and Table 3 (page 45), AND was used to *narrow* the search by combining all the search terms together, while OR was used to *expand* the search to include a range of related keywords and to search Title, Abstract and Main Heading (controlled vocabulary). Truncation was used by searching Nurs* to include all words built on this word stem, and quotation marks were used to create phrase searches on all phrases

Table 2. CINAHL search strings

Search #	Field tag	Key words
1	Title OR Abstract	Nurs* OR "registered nurse" OR RN
2	Main heading (MH)	Nurses OR "Registered Nurses" OR "Nurses, other"
3		S1 OR S2 *[Remember to CLEAR search]*
4	Title OR Abstract	"End-of-life care" OR Death OR Dying OR "Attitude to death" OR "terminally ill"
5	Main heading (MH)	"Attitude to Death" OR "Terminally ill Patients" OR Death
6		S4 OR S5 *[Remember to CLEAR search]*
7	Title OR Abstract	Experience OR "Lived experience" OR "Life experience" OR attitude OR perception OR emotions
8	Main heading (MH)	"life experience" OR attitude OR emotions
9		S7 OR S8 *[Remember to CLEAR search]*
10	Title OR Abstract	"Intensive care units" OR ICU
11	Main heading (MH)	"Intensive care units"
12		S10 OR S11 *[Remember to CLEAR search]*
13		S3 AND S6 AND S9 AND S12
	Filters	Since 2010, remove full-text limiter (on each search, relevant to our library as we have it set as default)
	NOT	NICU OR PICU OR child* OR paediatric OR neonatal OR infant OR adolescent

Table 3. Search history adapted from CINAHL record, showing search strings, search limiters and results

Search #	Search terms	Search options	Results
S1	TI (Nurs* OR "registered nurse" OR RN) OR AB (Nurs* OR "registered nurse" OR RN)	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(621,930)
S2	MH Nurses OR "Registered Nurses" OR "Nurses, other"	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(108,060)
S3	S1 OR S2	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(660,044)
S4	TI ("End-of-life care" OR Death OR Dying OR "Attitude to Death" OR "Terminally ill Patients") OR AB ("End-of-life care" OR Death OR Dying OR "Attitude to Death" OR "Terminally ill Patients")	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(232,544)
S5	MH "Attitude to death" OR "Terminally ill Patients" OR Death `	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(259,261)
S6	S4 OR S5	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(272,275)
S7	TI (Experience OR "Lived experience" OR "Life experience" OR attitude OR perception OR emotions) OR AB (Experience OR "Lived experience" OR "Life experience" OR attitude OR perception OR emotions)	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(599,505)
S8	MH "life experience" OR attitude OR emotions	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(60,364)
S9	S7 OR S8	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(628,752)
S10	TI ("Intensive care units" OR ICU) OR AB ("Intensive care units" OR ICU)	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(46,999)
S11	MH "Intensive care units"	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(44,208)
S12	S10 OR S11	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(69,042)
S13	S3 AND S6 AND S9 AND S12	**Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(568)
S14	S3 AND S6 AND S9 AND S12	**Limiters** – Published Date 20100101-20221231 **Expanders** – Apply equivalent subjects **Search modes** – Find all my search terms	(436)

of two or more words to search those terms as a single phrase. Controlled vocabulary terms (CINAHL subject headings) were searched separately and then combined with free text keywords to add a further level of precision to the search. Controlled vocabulary can be used to find " 'all and only' on a topic", "when you need extreme precision" and when "you need a unified approach to the different author voices" (Brown & Bell, 2018, pp. 74-75). Table 3 (above) shows the search steps, strings and results from the search. It should be noted that the final search demonstrated in Table 3 is the result of numerous prior searches of a range of databases and search systems that were used to determine the best search terms to use. The researcher must be prepared to constantly improve and update their search as their investigations within the various databases reveal other search variations.

Documenting the search process provides a systematic guide to work through, and makes the search replicable – that is, able to be repeated by another researcher (Gusenbauer & Haddaway, 2020). The use of a table allows the researcher to set out their search terms and strategy to match the functions of individual databases. It also makes it easy to follow the systematic search steps, to easily see

which field tags to use for each step, and the keywords are ready to be copied and pasted into a search bar. The example in Table 2 also has practical reminders to follow (in CINAHL, the researcher must remember to clear their previous search terms before combining one search with another) and also has the Boolean operators in capitals as this is required in some databases, so it is a good habit to follow. Further to this, the researcher may also like to incorporate the field tags specific to each database into the keyword search string, to allow them to copy and paste it directly into the search bar without having to also adjust drop-down menus. By structuring their search for each database in a table before conducting the search, the researcher is easily able to see the steps required by the idiosyncrasies of each database. It also makes the search easily replicable by another researcher and assists those checking the rigour of the search. Table 2 shows one way a researcher may set out their initial search strategy for each database.

Step 10. Map the individual database search strategies in a table

Table 3 sets out a record of the search history for the search in CINAHL, showing each of the search strings, search limiters and results.

Once the search process is complete, the records found are ready to be uploaded into reference management software, such as Endnote or Zotero. The records can then be saved into an evidence synthesis management site, such as Covidence or RevMan. These sites enable streamlined screening and selection of relevant studies according to the inclusion criteria set for the review.

Conclusions

Access to the most relevant information is essential to transfer the findings of the latest research into practice. While international databases have a wealth of knowledge, finding relevant published research studies can be daunting and confusing for emerging researchers without the support of an experienced librarian. This example of an ordered and systematic advanced search process reflects the current capability of our library databases. However, this is a rapidly developing field that requires researchers to work with librarians to constantly update their knowledge and skill in conducting searches.

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