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LETTER TO THE EDITORS

The *Australian Journal of Advanced Nursing* is the peer-reviewed scholarly journal of the Australian Nursing and Midwifery Federation (ANMF). The Mission of *AJAN* is to provide a forum to showcase and promote a wide variety of original research and scholarly work to inform and empower nurses, midwives, and other healthcare professionals to improve the health and wellbeing of all communities and to be prepared for the future.

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EDITORIAL

Factors of impact (size and the way it's used)

Welcome to the third issue of the 39th volume of the *Australian Journal of Advanced Nursing* (*AJAN*). This issue marks the 11th since the Australian Nursing and Midwifery Federation (ANMF) relaunched *AJAN* at the end of 2019. While we won't quite cap off a full three volumes until the end of 2022, I wanted to share some good news with our readers and didn't want to wait. I was pleasantly surprised to see that AJAN's Impact Factor in 2021 has recently almost doubled to 1.206, up from 0.647 (see Figure 1) with a Five-Year Impact Factor of 1.311.

I thank our entire journal team and Editorial Board for their efforts to grow and promote AJAN and want to especially thank our dedicated peer reviewers and editors whose work and insights are vital to the operations of the journal. I also want to thank and congratulate our authors who made the decision to publish in AJAN. This new high watermark is certainly an excellent recognition of the journal and the quality and appeal of our authors' work. It's important however, to recognise that there is more to quality and value in research than a higher Impact Factor. Indeed, Clarivate Analytics also publishes a range of other metrics, and we still have a lot of work ahead of us to ensure the continued success of the journal over the coming years.

To move beyond measuring journals against one another and on to broader notions of impact and value; while it's always nice to see another citation or jump in a metric, AJAN's mission is to inform and empower nurses, midwives, and other health professionals to improve the health and wellbeing of our community. Bibliometrics are all well and good, and its understandable that universities, academics, and publishers would seek to evaluate their outputs, but I don't imagine that patients, community members, and the frontline workforce across the healthcare and related industries could care less about citations if the quality of the care they give or receive, or the safety of their workplace is no different.

Ensuring that research is impactful and valuable is clearly more than just about publishing and getting citations. Of course, the results need to 'get out there' and citations are one way of evaluating how many others have found and used the work in their own publications, but this is just part of the story. For example, unless published in another journal, the citation of published evidence in a clinical guideline used by nurses or midwives doesn't contribute to Impact Factors. Likewise, evidence laid out in reports or other grey literature will not be counted in an Impact Factor but might be immensely influential in terms of policy and the way healthcare is delivered. Although there are other means of quantifying 'impact', for example through Altmetric Attention Scores that measure the volume and reach of a particular research output, these again, are not necessarily an indicator of the quality or value of the evidence.

The real value and contribution of research links all the way back to clear identification of the topic of study, where it is important to select and pursue a topic that is genuinely meaningful to those affected. Through rigorous and quality conduct and reporting of the research, outcomes and evidence can then influence, inform, and guide policy, practice, and future research. While the reputation of where that work is published might provide insight into the degree to which a journal adheres to best practices in terms of review and publishing, it doesn't necessarily connote quality or impact; a very good journal can still publish poor research in the same way that a journal with a poor reputation can publish papers of excellent quality. This highlights that a journal's Impact Factor doesn't necessarily relate to the individual quality or value of individual papers. Similarly, many citations to a single paper doesn't directly reflect real-world value or impact.

It is important to remind ourselves why we do research in the first place and to consider whether we are focussing on the most meaningful factors. This is especially important given the competing demands that are carried by the health workforce. From my discussions with busy clinicians, undertaking research while also working in a direct care role is immensely challenging, even if the main barrier is simply having enough time and headspace while managing patient care. Publications and citations are great, but a focus on volume and bibliometrics can be a distraction from where the real value of research lays; in guiding and influencing sustainable changes that result in people living healthier, safer, and more rewarding lives.

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RESEARCH ARTICLES

Australian community nurses' encounters with early relational trauma: a qualitative study of lived experiences and the impact of specialist training

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ABSTRACT

Objective: We report on a qualitative study of community nurse encounters with early relational trauma in parent-infant dyads.

Background: Early relational trauma involves interactional or emotional disturbance in the parent-infant dyad. Earliest possible detection is needed to mitigate negative impacts on socio-emotional development, but early relational trauma is often challenging for practitioners to detect and respond to.

Study design and methods: Maternal and Child Health nurses in Victoria, Australia received workforce training to address this. We interviewed 20 nurses both before and after they received specialist training, to understand their lived experiences in encountering client trauma and perceived changes to their professional confidence and competence post-training. The study comprised two areas of enquiry: i) a phenomenological analysis of nurses' lived experiences in encountering possible trauma; and ii) a grounded theoretical analysis of the context of trauma encounters at baseline, and perceived change in competence at follow-up.

Results: Nurses who coped well when working with trauma maintained a level of emotional distance and were able to draw on a repertoire of well-established practice skills. The specialist workforce training resulted in clear gains in nurses' confidence and capacity to identify and respond to early relational trauma.

Implications: Findings highlight a need for frontline services to provide specialist training and supervision in relational trauma and to cultivate cultures of communication and support. Such programs would optimally be deployed widely, to equip professionals with enhanced knowledge and confidence to create timely change in the face of early relational trauma.

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What is already known about this topic?

- Effective recognition of early relational trauma is critical to enable relational repair.
- Frontline health services are well placed to achieve timely identification of early relational trauma, but it can be challenging for practitioners to detect and respond to the signs of early trauma.
- Working with relational trauma and feeling uncertain about trauma-related decision-making are distressing, but little is known about the *lived experiences* of professionals required to detect and respond to parent-infant trauma when lacking specialist knowledge.

What this paper adds

- We interviewed nurses i) before and ii) after they received specialist training in early relational trauma, to understand their lived experiences in encountering possible trauma and their perceived changes to professional confidence and competence post-training.
- We found that nurses who coped well when working with trauma maintained a level of emotional distance and drew on a repertoire of well-established practice skills.
- The specialist workforce training described here resulted in clear gains in nurses' confidence and skills for identifying and responding to early relational trauma, and we interpret findings with reference to recommendations for broader workforce training and supervision.

Keywords: maternal and child health; nursing; trauma-informed practice; relational trauma; workforce training, phenomenology

BACKGROUND

The Maternal and Child Health (MCH) nursing workforce in Australia provides universal healthcare to families and children from birth to preschool age. The primary service focus has been to ensure optimal child physical health and development, but increasingly MCH nurses are required to detect and respond to risk in the family environment. Key risks are those emerging from early relational trauma within parent-child attachment relationships. Being part of a universal platform, MCH nurses are uniquely positioned for frontline detection of such seminal risks to children's development.

Early relational trauma refers to interactional or emotional disturbance in the parent-child dyad and is associated with stressed or distressed parental caregiving. These early distortions of emotional care can cause infant anxiety, uncertainty or fear in primary attachment relationships,[1] which may disrupt or distort developmental processes in the neonatal and early childhood periods. In turn, this can affect social and emotional development across the life-course.[2-4] Relational trauma is in contrast to single-incident trauma which may occur through isolated, unpredictable experiences such as severe accidents.[5] Aetiological factors are diverse and include parental mental illness and substance misuse; unresolved intergenerational grief, abuse or loss; and stressors such as family violence, interpersonal conflict or homelessness.[6,7] Effective recognition of relational trauma symptoms in parents and/or infants is critical to enable early support for repair.

MCH nurses in Australia are highly qualified, having completed nursing, midwifery, and child, family and community health degrees. Nevertheless, workforce reviews identified a demand for trauma-informed training yet identified none that were adequate for the perinatal and preschool population. As such, authors JM, LN, EC and AB, together with a broad team delivered a specialist workforce training program in response to a state government request in 2018. The 20-hour program, titled 'MERTIL' (My Early Relational Trauma Informed Learning) was designed by early trauma specialists (authors JM and LN) and delivered with input from the broader team via multimedia online learning and clinical workshops. The program provided the Victorian state MCH workforce (1,650 nurses) with practical and theoretical skills to extend knowledge and enhance confidence in identifying and responding to signs of relational trauma. All nurses and managers were eligible to participate in an in-person clinical workshop and to engage in an accompanying suite of self-paced online resources including learning modules, fact sheets, video vignettes, podcasts, and links. MERTIL translates attachment and caregiving theory and evidence for application in frontline early childhood settings. The course content emphasises recognition of traumatised states in the parent-infant dyad and the delivery of early support through frontline engagement, strengths-based conversations and well targeted practical resources.

A separate MERTIL program evaluation of process and learning data from baseline ($N = 1450$), exit ($n = 734$) and follow-up surveys ($n = 651$) completed by MCH practitioners indicated excellent uptake, satisfaction and impact.[8] Further detail on the MERTIL program and its quantitative evaluation can be found in that paper.[8] To build on the findings of the quantitative evaluation, we designed the current study to further explore the *lived experiences* of MCH nurses in their work with early relational trauma. We noted a lack of evidence on what it is *like* for nurses required to detect and respond to relational trauma, where professional knowledge is often limited and uncertainty about how to proceed is common.

Early relational trauma has not always been well understood by frontline professionals and can be particularly challenging to detect and respond to effectively.[9] Many frontline practitioners lack specialist developmental knowledge and observational skills essential to trauma recognition in infants. Resulting 'healthcare uncertainty' may be destabilising and discomforting.[11] Judgment and decision-making are key healthcare processes that are inherently attended by uncertainty,[10,11] especially when knowledge about a topic is limited. Critically, healthcare uncertainty can undermine outcomes for both practitioners and clients.[12] Research shows that nurses and other professionals working with trauma use various conscious and unconscious strategies to manage healthcare uncertainty.[11,13] These range from desensitisation and avoidance,[11] to defensive processes that focus on alternate explanations for developmental problems, such as neurobiological deficits, when confronted with trauma.[13]

Nursing research has typically focused on nurses' experiences of responding to acute or physical trauma rather than relational trauma, and on emergency inpatient settings rather than community settings.[14,15] For example, a phenomenological account of nurses' emotional distress experiences in caring for survivors of intimate partner violence was situated within the emergency inpatient setting.[16] Qualitative research on traumatic experiences of British midwives illuminates the nature of practitioner vulnerabilities in responding to distressing events,[17] highlighting a tension between manualised care and intuitive approaches. Recent mixed-methods research involving home visitors in a US Maternal, Infant and Early Childhood Home Visiting program has illuminated the experiences of and contexts for secondary traumatic stress when working with trauma.[18] Recent qualitative research on Norwegian practitioners' experiences of addressing early life trauma and abuse has shed light on practitioner secondary suffering, challenges associated with dysfunctional work structures, and feelings of doubt about ability and skills among psychologists and child protection workers.[13]

While these studies have addressed nurses' and other healthcare professionals' key challenges and experiences of work with vulnerable families, published research on this remains limited overall, and there is a critical gap where the phenomenon of *uncertainty* in detection of and response to signs of relational trauma is concerned. While studies have explored uncertainty in healthcare decision-making,[10,11,19] to date we know very little about healthcare professionals' experiences of uncertainty when required to detect and respond to early relational trauma on the front line. Because of the tendency for defensive process and the high risk for secondary traumatic stress in this area of work, we need to better understand practitioner experiences, challenges and coping mechanisms. This knowledge will benefit both practitioners and clients.

The Australian MCH workforce is responsible for attending to both the physical and emotional health needs of infants and young children in the context of often great uncertainty, in the absence of specialist training, about what early relational trauma looks like and how to effectively respond when it is detected. MCH nurses have broad remits that include statutory reporting requirements. It is therefore in the interests of this service and other, similar services to better understand frontline professionals' lived experiences of detecting and responding to possible signs of early relational trauma. Understanding what it is *like* for professionals working in this arena is critical to designing appropriate and useful professional education and support initiatives that will see good uptake and engagement.

RESEARCH AIMS

Aims were:

Enquiry (i): Phenomenological Analysis

(1) At baseline, articulate a General Phenomenological Structure of nurses' lived experiences of feeling uncertain in detection of and response to possible early relational trauma in the parent-infant dyad.

Enquiry (ii): Grounded Theoretical Analysis

(2) At baseline:

- Describe core features of scenarios where nurses identified or suspected signs of early relational trauma, including features of these scenarios that made trauma detection or response difficult.
- Identify knowledge or resourcing that may have helped nurses in these scenarios.

(3) At follow-up:

- Describe how the MERTIL specialist training impacted nurses' confidence and knowledge in recognising and responding to signs of early relational trauma.

METHODS

RESEARCH DESIGN

We used qualitative methodologies to analyse findings from the two areas of enquiry outlined above: i) a study of nurses' lived experiences of feeling uncertain in detection of and response to early relational trauma; and ii) a study of the core features of scenarios where relational trauma was identified or suspected, and of the impact of the specialist training provided. The theoretical framework comprised two complementary approaches: descriptive phenomenology to address enquiry (i) and grounded theory with descriptive synthesis to address enquiry (ii).

CONTEXT OF THE CURRENT STUDY AND TRAINING PROGRAM

This study occurred alongside a separate, quantitative evaluation of the state-wide MERTIL workforce training for MCH nurses in Victoria, Australia.[8] MERTIL trained MCH nurses working across three publicly funded service programs: the 'Universal' and 'Enhanced' services, and the telephone service. The state-wide Universal service provides primary surveillance and support for infants and young children. In this service, regular 30-60-minute appointments from birth to 3.5 years of age monitor the physical and mental health of both infants and parents. The Enhanced service supports families experiencing problems such as family violence, drug and alcohol misuse, mental illness, disability, homelessness, social isolation, youth pregnancy, and with these, parent-baby bonding and attachment problems. Regular clinical supervision and debriefing are provided for staff delivering this service. The telephone service provides 24-hour, 7-day information about maternal and child health, nutrition, breastfeeding and parenting.

ETHICAL CONSIDERATIONS

Ethical approval was granted by the Victorian Department of Education and Training (2018_003741) and Deakin University's Human Research Ethics Committee (HEAG92-2019). Participation was voluntary and nurses provided written, informed consent prior to participation. Nurses were under no obligation to participate; their managers circulated study information which prompted interested nurses to make direct contact with the researchers about their potential involvement. No reimbursement was offered.

PARTICIPANTS, RECRUITMENT AND DATA COLLECTION

Twenty-two MCH nurses were recruited via their managers, who were asked by the researchers to circulate study information to nursing staff. Two participants were lost to follow-up after participating in the baseline interviews, with no reasons for attrition available. The sampling framework was designed to recruit representative samples across the three different MCH service levels and various geographical areas, with participants selected on a first-in basis. Participants represented a range of experience levels spanning one to 32 years' practice in the sector, with a median MCH employment history of 14 years. Four nurses had been employed between 1-5 years; three between 6-10 years; eight between 11-20 years; and five more than 21 years. Seventeen nurses practiced in the Universal service (twelve exclusively and five across an additional service level); five in the Enhanced service; and three in the telephone service. Eleven were based in metropolitan services and nine in regional/rural services. Participants were informed of the research purpose and no prior relationships were established with participants.

The female researchers (AB & EH) were at the time of data collection and analysis both postgraduate Psychology research students employed by the university. Neither researcher had studied or practiced in nursing but EH was training in clinical psychology at the time.

The researchers conducted one-on-one, in-depth, semi-structured telephone interviews with nurses first at baseline and secondly after they had engaged in MERTIL training. Interviews of about 30 minutes were conducted in a private setting at Deakin University in English and were audio-recorded for transcription. Data were collected between July-November 2018. Findings are reported in line with the Consolidated Criteria for Reporting Qualitative Research Checklist.[20] Table 1 presents the interview schedule and analytic details for each core area of enquiry.

CHOICE OF METHODOLOGIES

We draw on the complementary approaches of descriptive phenomenology and grounded theory, which are interested in meanings of experience.[21] Descriptive phenomenology aims to understand how a core phenomenon is experienced in its lived context: in other words, its psychological *essence*.[22,23] Grounded theory uses flexible, iterative analytic strategies to develop inductive theory by way of connecting categories and making implicit meanings explicit.[24] In this process, emerging theoretical ideas are checked and refined while remaining grounded in the data.[24] Grounded theory is well placed to complement other qualitative methodologies, including phenomenology,[21] in this case to explore the details of the *contexts* in which possible relational trauma was recognised.

Sample size for qualitative analysis is determined by theoretical 'saturation', a point at which additional data do not produce new themes.[25] Sample sizes for grounded theoretical analysis tend to range from around 10-60,[26] or 20-30,[27] and for phenomenological analysis, from 1-10,[26] or 5-25.[27] Focused study objectives, semi-structured interviews and relatively homogenous samples, all relevant to the current study, contribute to early saturation.[28]

TABLE 1. SEMI-STRUCTURED INTERVIEW SCHEDULE ACROSS EACH TIME POINT WITH ACCOMPANYING ANALYTIC METHODOLOGIES USED TO ANALYSE INTERVIEW DATA

Time	Interview schedule	Analysis
Baseline [Enquiry (i)]	I'd like you to think about a time in which you were conducting a scheduled visit with a parent and infant/child and suspected you may be seeing signs of early relational trauma. I'd like you to focus on a time in which you felt unsure about these signs, and/or about how to respond. (Cue general response) Could you describe that moment in which you recognised feeling uncertain in that way? What was it like?	Descriptive phenomenology
Baseline [Enquiry (ii)]	What did you specifically think might be going on; what range of possibilities did you consider? What responses did you consider, and what did you end up doing?	Grounded theory
Follow-up [Enquiry (ii)]	Is there any additional knowledge, skill or resources that, looking back, might have helped you to feel more confident in managing that scenario? Is there anything in particular that you would like to gain from the training program?	Grounded theory/ Descriptive synthesis
Follow-up [Enquiry (ii)]	Could you tell me about your learning experiences with the training program? From a professional point of view, which points have made their way into your thinking and practice? We would like to take you back to the scenario that you told us about in the earlier part of the study. I'll summarise this for you and then I'll ask you to rate how confident you would feel now, in first recognising and then responding to a similar case. What, if anything, has changed in your practice since the training? Were there any unexpected outcomes for you from the training experience? What training and other practice gaps are there yet to be filled with respect to your work with early relational trauma?	Grounded theory/ Descriptive synthesis

DATA ANALYSIS

Interviews were transcribed verbatim by AB and EH, with any identifying details removed from the transcript. Baseline interviews were conducted with 22 participants. Two interviews were omitted from baseline reporting: one due to poor audio quality, and one which did not meet baseline criteria, with that participant having already commenced the MERTIL online training. All 22 participants were eligible for the follow-up and of these, 20 participated. Two could not be contacted.

For the descriptive phenomenological analysis, data were analysed across five phases by a single researcher (AB): first, the transcript was read as a whole; second, it was organised into meaning units; third, meaning units were transformed into summary meaning units from the nurse's perspective; fourth, transformed meaning units were reviewed to derive an individual summary for each nurse. Finally, individual summaries were synthesised into a Summary General Structure of the lived experience of feeling uncertain in first encounters of early relational trauma. A second researcher (JM) reviewed 25% of cases to ensure accuracy and depth in thematic extraction. In two cases, minor variations were noted and accepted. Table 2 presents an overview of these analytic phases.

For the grounded theoretical analysis, meaning units describing each core area of enquiry were clustered into thematic and sub-thematic categories, with categories either accepted or rejected according to new data throughout the process. A second researcher's view was sought at category change points. For both approaches, syntheses were audited via inter-coder agreement, with differences resolved via conferencing between key researchers (AB or EH) and a senior researcher with extensive methodological experience (JM). Table 2 presents the analytic phases for each stage of this enquiry.

TABLE 2. DATA ANALYTIC PHASES FOR EACH KEY METHODOLOGICAL ENQUIRY

Area of enquiry	Data analytic method	Analytic iterations				
(i)	Descriptive phenomenological analysis	1. Entire transcript read by researcher	2. Transcript organised into meaning units	3. Meaning units transformed into summary meaning units from participant's perspective	4. Transformed meaning units reviewed to derive individual summary for each participant	5. Individual summaries synthesised into Summary General Structure of the lived experience of feeling uncertain in first encounters of early relational trauma
(ii)	Grounded theoretical analysis	1. Entire transcript read by researcher	2. Transcript organised into meaning units	3. Meaning units describing each core area of enquiry clustered into thematic and sub-thematic categories	4. Categories accepted or rejected according to new data	

FINDINGS

PHENOMENOLOGICAL ANALYSIS OF LIVED EXPERIENCES

To contextualise nurses' lived experiences, all encounters with possible relational trauma occurred in either the MCH nursing clinic or in the client's home. In all encounters, the focal parent was the mother, and in each encounter, both the mother and child were present together. Focal children's ages ranged from neonate to three-and-a-half years. In all but one scenario, the nurse approached the consultation naïve to the circumstances. In other words, they were unaware of any prior details about the possibility of relational trauma occurring.

A Summary General Structure, outlined below, comprises five core themes that were common across all participants. Both central meanings and individual variations of these lived experiences are interpreted and illustrated with narrative excerpts from individual summaries. Themes describe various features of nurses' lived experiences of feeling uncertain, and at times destabilised, when first encountering signs of trauma. All nurses became present to an early awareness of possible relational trauma as they observed interactions between mother and child, nurse and mother, or nurse and child.

SUMMARY GENERAL STRUCTURE FOR THE EXPERIENCE OF FEELING UNCERTAIN IN DETECTION OF AND RESPONSE TO RELATIONAL TRAUMA: CORE THEMES

1. Worry

Affective experiences of worry for *safety* and for *wellbeing* were present for all participants. The affective experience ranged in intensity from mild concern to a visceral pre-occupation with safety in the moment. Experiential variations were such that worry was directed toward different recipients: the infant, mother, and/or the self as practitioner. Where worry was directed toward the infant, dominant experiences included sadness and concern for the infant's wellbeing, reflections on the possibility of developmental problems, and empathy for the needs of vulnerable children in general, accompanied by a felt obligation to ensure that children have their own 'voice' in the family and the healthcare system:

> *Upon acutely feeling the infant's extreme vulnerability… participant expressed a strong feeling of sadness on the infant's behalf. (6)*

Nurses' worry for mothers presented as intense concern for the mother's wellbeing. Affective experiences were characterised by a high-level reflective capacity marked by authentic compassion toward the mother despite her struggles with effective caregiving. This enabled orientation toward a non-judgmental stance.

For some, the dominant direction of worry was toward the self as practitioner. Here, nurses were explicitly concerned about their own physical safety or emotional wellbeing. This particular lived experience was characterised by an acute consciousness of risk to personal safety. Experiences were situated in home-visit consults where nurses felt personally at-risk, typically due to the presence of a client's violent or abusive male partner. In these circumstances, nurses' concern for their own personal safety eclipsed concern for the client in the moment.

2. Anxiety about the adequacy of response

All nurses experienced a level of anxiety about the adequacy of their response to identified or suspected trauma. The locus of this anxiety varied across characteristics of the self to characteristics of others. For some, anxiety stemmed from high expectations of self or an intense duty of care felt in relation to their client. Several *(1, 2, 4, 7)* felt deep discomfort about the possibility of being unable to effect change for the client. One *(2)* felt distressed when trying to reconcile their professional duty of care with the limitations of the job. One *(14)* felt deeply obligated to protect the vulnerable family beyond what might actually be feasible. This burden of responsibility emerges in several accounts, for example:

> *Participant felt inadequate in the realisation that they would never be able to guarantee client safety. A dissonance emerged between the acknowledgment of their practice limitations, and the anxiety stemming from their expectations of self in trying to ensure client safety. (4)*

For some nurses, anxiety about response adequacy was situated against a 'collapse' in the strategies that they would normally use for engaging the infant or client to effect change. For example, they knew that they lacked knowledge of strategies that would be helpful, or the strategies they used were ineffective:

> *Participant felt that the case exceeded their expertise… they felt lesser and inadequate in the face of uncertainty, and in the face of knowing there was "better care" available elsewhere. (1)*

For others, anxiety stemmed from perceived external pressures (frustrations with clients or with the broader service system). Some *(2, 17)* described anxiety arising from perceived system inadequacies.

Only a select few were shielded from undue worry about the adequacy of their response. Common here was an overall cultivation of affective distance from, rather than preoccupation with, the trauma scenario. In addition, these nurses demonstrated an assured sense of experience and competence. For example, one *(9)* referred to a repertoire of practice strategies that they had consolidated over time and that they knew they could rely on. Common also was a reflective capacity that enabled observation of difficult experiences at a distance. For example, while one nurse *(15)* was aware of compounding levels of futility in regard to helping a client within an 'impossible' service system, she remained reflective about what makes an effective practitioner and remained open to the complex needs of vulnerable families.

3. Awareness of the inadequacy of resources

Most nurses described an inevitable struggle with inadequacy of *resources* with which to manage the focal scenario. A common experience was the perceived lack of *time* available to form an adequate understanding and shape an adequate response to client needs. Felt inadequacies at the *personal* level were based on role inexperience and perceived lack of trauma knowledge. At the *relational* level, inadequacies were felt in contexts of insufficient clinical supervision, limited collegial support, and encounters with client trauma in the absence of a prior client relationship. At the *contextual* level, inadequacies were identified locally and in the broader service system to make effective referrals and affect timely responses.

A majority of nurses were frustrated with perceived service constraints or the capacity to make referrals to higher-level services. For example, one *(2)* felt that other frontline professions had clearer roles and templates to inform trauma responses within their remit. Several *(3, 4, 15)* felt frustrated by the inabilities of other services to meet client needs immediately in contexts of urgency. Several were especially aware of the possibility of lasting damage in the face of trauma and were earnest about the need to effect change within a timeframe that was developmentally useful for the child.

In exceptions to this theme, *(5, 8, 9, 12, 14)* nurses were preoccupied with experiences that did not, in the moment, warrant a reflection on the availability of resources for responding to the identified trauma. For example, the dominant experiential tone of the client encounter was fear for personal safety, and this eclipsed other reflections on how to approach the case. Some nurses *(9, 12, 14)* were simply resigned to the occurrence of trauma, with a sense that no additional resources would do much to help.

4. Management of personal discomfort

Attempts to manage personal discomfort in the face of possible trauma varied. Two main, underlying approaches characterised the locus of discomfort: (i) a cultivation of affective distance from the client or case (dominant affects of sadness and sympathy; i.e., 'distanced' affects), and (ii) a preoccupation with the client or case (dominant affects of anxiety, exasperation, betrayal, frustration, despair and helplessness; i.e., 'intense' affects). In the former approach, nurses tended to manage their feelings of discomfort by maintaining observational and affective distance from the scenario. For example:

> *Participant needed to self-protect by distancing their mind and sense of personal responsibility from the scenario. (15)*

In the latter approach, nurses were preoccupied with the client or presenting case and tended to have lasting emotional reactions to it.

Coping styles and capacities varied in the face of discomfort, and these informed nurses' ability to manage role demands and respond effectively. Several nurses *(1, 7, 14)* felt hopeless in the face of identifying signs of trauma. For these, normal strategies for engaging the client were felt to be ineffective. Others *(2, 6, 11, 12, 15, 18)* were able to remain engaged, either by cultivating a productive level of distance from the scenario or by relying on strategies that remained effective.

Two of three case variations were nurses practicing within the Enhanced MCH service level, who might have been reinforced by their high level of experience and the additional supervision provisions made available to them.

5. Poor connection with client which limited the capacity to effect change

The tone of the connection or partnership between nurses and clients at times made it difficult for nurses to feel they could bring about positive change. Several nurses felt alone and helpless, with no prospect of partnership with their client. They felt unable to connect or collaborate with their clients, who lacked insight and motivation to change. Implicit here was a tension between the nurses' undoubted capacity to assist in affecting change, and the client's willingness to collaborate. Some felt anxious to preserve rapport in the face of the possibility of alienating the client.

In two of three variations to this theme, the central feeling of uncertainty was again situated in a context in which the nurse felt their own personal safety was at risk. For these, the felt capacity to effect change was instead precluded by an overwhelming preoccupation with personal safety. For the other variation to this theme, the central feeling of uncertainty was because the healthcare visit was a first-time meeting with the client.

GROUNDED THEORETICAL ANALYSIS OF THE IMPACT OF SPECIALIST TRAINING

We then used a grounded theoretical approach to (i) describe, pre-training, the core features of scenarios in which nurses encountered possible early trauma. Baseline interviews explored six core areas: (a) contexts that created concern; (b) what made *detection* of early relational trauma difficult; (c) what made *response* to trauma difficult; (d) how nurses responded in challenging scenarios; (e) skills and knowledge that would have been beneficial; and (f) hopes and learning goals for the workforce training. Details on the core themes and findings from baseline data are summarised in Table 3.

TABLE 3. THEMES AND INTERPRETATIONS ARISING FROM BASELINE DATA, ENQUIRY (II)

Theme	Sub-themes/Scenarios
(1) Contexts that created concern	Six main scenarios raised concerns about possible relational trauma (most participants reported multiple concerns): i) aberrant infant/child engagement or behaviour (including marked disengagement of the child from parent or nurse, and generally disturbed or atypical behaviour) ii) child safety concerns iii) separation/family violence iv) marginalisation or isolation v) aberrant parent engagement/attitude/behaviour vi) parent mental health/substance use
(2) What made detection of relational trauma difficult	Core problems impeding confident detection of trauma centred on two themes: i) complexity regarding trauma diagnoses (including difficulty in distinguishing signs of relational trauma from developmental problems; disparities between parent reports and actual observation of the infant; difficulty in detecting whether parent had experienced trauma; and cases where the source of the trauma was unclear) ii) subjective confidence (where trauma detection was affected by limited confidence, either in a context of personal MCH role inexperience or lack of familiarity with the family and feeling ill-equipped to assess situational nuances)
(3) What made response to trauma difficult	Core problems blocking effective response were situated in four themes: i) the family-nurse relationship (where the parent was disengaged from the nurse, where the nurse had to balance situational urgency with preserving client relationships, and where the nurse needed to meet multiple family members' needs) ii) limited subjective confidence (characterised by feelings of inexperience, uncertainty and helplessness) iii) confidence with wider systems (e.g. capacity to support a referral) iv) service-level constraints (limited time)
(4) How nurses responded in challenging scenarios	Nurses' responses to possible trauma encounters were clustered within one of 10 courses of action: the nurse i) discussed the parent's needs (related to family violence, mental health, and self-care) ii) sought consultation and/or supervision iii) arranged a referral for additional relational support iv) organised a rapid follow-up v) discussed support for child's behaviour (behavioural management, care strategies, external support) vi) offered developmental and attachment psychoeducation vii) referred to safety and/or statutory service viii) arranged housing and/or financial services ix) referred to child support services x) focussed on establishing a strong relationship with the family
(5) Skills and knowledge that would have been beneficial in responding	Additional knowledge or skills that would have been beneficial in managing the scenario: i) professional training (in infant mental health, developmentally specific trauma detection, family violence and attachment principles) ii) internal and external resources iii) supervision and support iv) effective engagement with external support services v) connecting and communicating productively with parents
(6) Hopes and learning goals for impending workforce training	Nurses wished to gain the following skills and knowledge from workforce training: i) skills for engagement and response to families ii) skills for recognising trauma iii) practice principles (including self-care guidelines and shared sector-wide practice principles) iv) continued professional development v) knowledge for translating skills or theory into practice vi) tangible/instrumental resources.

We also used a grounded theoretical approach, with descriptive synthesis, to (ii) describe, post-training, how training had impacted nurses' confidence and knowledge in recognising and responding to early relational trauma. Nurses were asked to reflect on the scenario they had reported at baseline and to describe whether they would feel differently about managing the same scenario post-training. Nurses endorsed various changes in the following themes and areas: a) Theory and Learning; b) Attitude to Practice; c) Observation and Detection; d) Communication with Clients; e) Communication with Others; and f) Response. Gains in knowledge and skill were consistent with nurses' baseline learning hopes and also with the quantitative evaluation findings reported in the earlier study.[8] Details on themes and outcomes can be found in Table 4.

TABLE 4. THEMES AND OUTCOMES OF SPECIALIST TRAINING ARISING FROM FOLLOW-UP DATA, ENQUIRY (II)

Theme	Outcomes of Specialist Training
(1) Improvements in Theory and Learning	Deeper understanding of the principles of infant communication; mechanisms of early relational trauma; and breadth in sources and types of early relational trauma.
	Reinforcements to existing knowledge and therefore enhanced subjective confidence in approach to practice.
(2) Changes in Attitude to Practice	Relational trauma brought to the forefront as a primary lens for approach to practice. (For some, a felt tension between a heightened understanding of relational trauma while remaining unable to translate new knowledge into practice within service-level limits.)
	Realisations about the importance of carefully orienting to the infant's or child's perspective, and reflective practice.
	Intuitions more reassuringly grounded upon evidence-based principles.
	Feelings of validation and esteem arising from realisations about the uniqueness of the frontline position in identifying trauma.
(3) Improved Skills for Observation and Detection	Heightened overall alertness to signs of trauma, improved skill in detecting subtle signs, more attention to intuitive feelings, proficiency in case formulation, and improved client listening skills.
(4) New Skills for Communication with Clients	New skills for client discussions: confidence in approaching conversations about family violence and mental health; the capacity to engage in psychoeducational discussions about trauma mechanisms; the importance of orienting to the child's perspective.
	Better skills for engaging vulnerable families and were present to using trauma-informed language in conversations with clients.
	The importance of adopting non-judgmental and collaborative approaches with clients since engaging in the training.
(5) New Skills for Communication with Others	More effective approaches to communication with others (both colleagues and external services).
	Benefits of a common 'language' for use within the MCH workforce and in communication with external services.
(6) Response Options	A larger repertoire of follow-up options.
	A propensity to arrange follow-up care more promptly, in contrast to a 'wait and see' approach that was common prior to training.
	Greater inclination to enquire about and apply their knowledge of family histories where relevant.
	Use of creative solutions in spite of limited referral pathways, tailoring responses more carefully to client needs.
	Making additional consult time available as needed.

DISCUSSION

We aimed to understand community nurses' lived experiences of first encounters with possible relational trauma in mother-infant dyads, and change in nurses' capacity to recognise and respond to signs of early relational trauma after engaging in specialist training. Phenomenological findings, which extend upon the findings from the grounded theoretical and descriptive syntheses, provide unique insights into the challenges and lived experiences that frontline nurses face in these encounters.

THE LIVED EXPERIENCE: NURSE ENCOUNTERS WITH RELATIONAL TRAUMA

Nurses recognised signs of early trauma through the infant's withdrawn or disturbed behaviours in interactions with their parent or the nurse, or unusual parent attitudes. These signs were evident across contexts including family violence, marginalisation or isolation and parent mental ill-health or substance use.

A key source of distress for nurses in these encounters included a shutdown in thinking and response when nurses were uncertain about how to respond, or when their regular practice strategies were felt to be ineffective. Nurses felt destabilised when there were resource inadequacies at both individual and organisational levels. For example, when time and resources were limited, nurses felt their capacity to provide quality care was affected. For many, this brought about acute feelings of frustration where nurses felt that the limitations of their job impinged upon their duty of care to protect vulnerable children. In these experiences, nurses tended to ruminate on the case and at times feel ineffective as a practitioner. Similar findings are noted elsewhere in the literature: among a sample of practitioners responding to child abuse, the greatest source of disillusionment was not the confronting content of the work itself but instead all that practitioners could *not* do in light of service constraints and dysfunctional work structures;[13] among a sample of maternal, infant and early childhood home visitors, feelings of acute demoralisation emerged in cases where clients were unresponsive to practitioner efforts.[18] Nurses derive role satisfaction from the felt capacity to effect client change and there is evidence that perceived failure to do this can lead to feelings of inadequacy.[11,29,30]

In the current study, nurses who were shielded from overwhelming distress when working with relational trauma reported an ability to hold themselves at a safe, reflective distance from difficult feelings. This may reflect a distancing or avoidant protective mechanism and aligns with the findings of a review on secondary traumatic stress and nurses' emotional responses to trauma,[31] which positions disengagement as an emotional reaction to trauma and a focus on technical, task-oriented practice as a defense against distress. In this study, a reliable repertoire of practice strategies for coping and response helped nurses to remain engaged and effective in their work. Approaches that were core to nurses' felt efficacy in contexts of trauma included deploying a framework for understanding what they were seeing, using a productive level of affective distance from the scenario, and flexibility in case formulation and response. A level of reflective capacity, involving awareness of one's own personal response to trauma, is also key. For some, the experience of confronting signs of possible trauma is disorienting, and may in a shutdown of reflection.[32]

OUTCOMES OF MERTIL TRAINING

Qualitative findings reported here align with and expand upon those from the earlier program evaluation.[8] In that study, nurses reported significant increases in all areas of self-rated learning, post-training. Gains in confidence and capability were sustained at three months post-training. Similarly, in the current study, nurses' engagement in the MERTIL training resulted in gains in subjective confidence and skills-based competency for identifying and responding to signs of early relational trauma. One central remaining barrier to confidence in practice remained at follow up, which was that inadequate or inefficient referral pathways for clients experiencing relational trauma sometimes meant that when nurses were deeply invested in affecting positive change for families, they still felt restricted in their ability to do so. This aligns with findings of the program evaluation which also noted nurses' continuing concerns about pragmatic issues with referral networks and intervention pathways.[8]

Nevertheless, lived experience data reported here suggest an overall desire to cultivate flexible ways of addressing client needs as nurses felt armed with a fresh repertoire of knowledge and skills, post-MERTIL training.

STRENGTHS AND LIMITATIONS

All participants were female, reflecting the broader gender profile of the MCH workforce in Victoria. However, we recruited a diversity of MCH nurses with respect to service level, location, and sector experience. The sample comprised nurses from each of the Universal, Enhanced and telephone-based services and from a range of service locations (metropolitan, regional and rural) representing different sociodemographic settings. While current investigations were restricted to a sample of MCH nurses, findings may be relevant to other frontline professions in which practitioners are required to manage uncertainty and stress in trauma practice.

IMPLICATIONS FOR WORKFORCE SUPPORT

Some nurses reported feeling overwhelmed by their scope of practice, and this was compounded by the perception that receiving more training equals having more responsibility. Community healthcare professionals often operate within constraints across a multiplicity of intersecting and burdened services.[29] Perceptions of work overload and unclear domains of practice can present feelings of uncertainty and overwhelm.[11,33] Critically, the MERTIL training emphasised how even brief, in-the-moment encounters can make a difference to clients and families. This approach was effective in addressing nurses' feelings of overwhelm.

Uncertainty is often inherent in healthcare decision making. Many nurses in the current study remarked that feelings or actions in their practice that were previously based 'only' on intuition had been deepened and validated in the process of being equipped with new evidence-based theory and knowledge. This amounted to greater feelings of confidence in detection of possible trauma and a proclivity to organise prompt responses in cases of suspected trauma.

Those who remained resilient in challenging circumstances reflected a diversity of service levels, locations, and role experience. This aligns with findings that protective factors in trauma work include not only organisational factors but also personal characteristics including hardiness, self-esteem, and an internal locus of control.[34] Given that nurse resilience can be shaped through education, support, and meaningful recognition,[35] and promoted by management through humanistic leadership, advocacy, and development of reflective capacity,[36] there is potential for specialist training to stimulate resilience at both the person- and sector-level. Management can achieve this through relational leadership,[37] cultures of quality supervisory support and through individual-group interventions, worker-environment interventions, and organisational interventions.[17,18,38]

Rapport is central to nurse-client interactions and essential for therapeutic change through awareness and shared understanding.[39] In the current study, nurses felt ill-equipped or powerless to promote positive change when they were unable to cultivate rapport and connection with their clients, often where clients were felt to be difficult to work with. Reflective trauma-focussed supervision examining personal responses is recommended for professionals working with trauma. While translation of such supervisory models to frontline healthcare remains unclear, we identified a critical need for clinical supervision to enable non-reactive responses in difficult scenarios and allow space for guided reflection.

Beyond the need for external supports, MERTIL training emphasised the additional importance of self-care for professionals working with early relational trauma. Self-care is essential for practitioners in trauma work but surrounding discourse often centres on activities naturally sitting outside practice contexts.[34,38,40] Frontline practitioners may be better served by tools that integrate self-care into real-time practice, securing benefit at the time of response.

CONCLUSION

The experiences of community nurses articulated here may better position supervisors, educators and policymakers to optimise frontline healthcare workforce capacity to skillfully recognise and respond to signs of relational trauma, and to confidently manage feelings of uncertainty and overwhelm. Findings illuminate the need for solutions at both organisational and individual levels. At the individual level, nurses would optimally be equipped with various strategies to enhance resilience and reflection in the face of uncertainty. Organisational level targets include adequate supervision, and cultivation of cultures of communication and support. The MERTIL specialist training described here provides an example of how evidence-based, trauma-informed training can equip frontline professionals with enhanced skills and knowledge to sustain their resilience and efficacy when required to detect and respond to signs of early trauma in challenging healthcare encounters.

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RESEARCH ARTICLES

The effect of self-management support on knowledge level, treatment compliance and self-care management in patients with hypertension

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ABSTRACT

Objective: This study was carried out to determine the effect of self-management support given to patients diagnosed with hypertension on the hypertension knowledge level, treatment adherence and self-care management, and to examine the changes in patients' blood pressure after the self-management support.

Background: The rise of chronic diseases such as hypertension necessitates the equipment of patients with sufficient knowledge and skills necessary to manage their disease and self-care.

Methods: This randomised controlled research was conducted with a total of 137 patients, including 69 intervention and 68 control patients. Data were collected using the "Patient Information Form", "Hypertension Knowledge-Level Scale", "Hill-Bone Compliance to High Blood Pressure Therapy Scale" and "Self Care Management Process in Chronic Illness Scale" at the first interview and the last interview three months after the first interview. One week after the first interview, the patients in the intervention group received self-management support including information about hypertension and its management and blood pressure measurement skills.

Results: After self-management support, a significant improvement was found in hypertension knowledge level (p=0.000), treatment adherence (p=0.000), and self-care management (p=0.000) of patients in the intervention group A significant decrease was determined in systolic (p=0.000) and diastolic blood pressure (p=0.000) of patients in the intervention group.

Conclusion: Self-management support has shown positive effects in increasing hypertension knowledge level, adherence to hypertension treatment, self-care management, and blood pressure control in patients diagnosed with hypertension. This study also provides nurses with an approach in which they can effectively use training and counselling roles for patients.

Implications for research, policy, and practice: Patients diagnosed with hypertension should be educated by nurses about the disease. Nurses should teach the patients who are diagnosed with hypertension the ability to monitor their blood pressure at home. Cardiovascular rehabilitation nursing units should be established in hospitals to provide more effective self-management support to hypertensive patients.

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What is already known about the topic?

- Education and support programs offered by nurses are important in controlling chronic diseases such as hypertension.
- Guidelines for the management of arterial hypertension emphasise the importance of self-management support in controlling hypertension.

What this paper adds

- Self-management support is an effective approach to increasing hypertension knowledge level, adherence to treatment, and self-care management.
- Self-management support helps patients to achieve blood pressure control and optimal blood pressure values.
- Self-management support empowers patients by increasing their control over the disease.

Keywords: Blood pressure control; hypertension knowledge level; self-management; treatment adherence

BACKGROUND

Hypertension is a chronic disease and a common public health problem worldwide. Hypertension is responsible for 45% of heart disease-related deaths, 51% of stroke-related deaths, and 6% of adult deaths worldwide.[1,2] The prevalence of hypertension in adults is between 30-45% in the world,[3] and 30.3% in Turkey, where the prevalence of hypertension in women (32.3%) is reported to be at a higher rate compared to men (28.4%).[4]

The main goal in the treatment of hypertension is to ensure optimum blood pressure control in the patient.[3] One of the most important factors affecting blood pressure control is treatment, adherence, and persistence.[5] Non-adherence to treatment is a common problem in hypertension, which is a chronic disease, and the World Health Organization reports that approximately half of the individuals with chronic diseases do not adhere to treatment.[6] Non-adherence to treatment in hypertensive patients adversely affects patients' health and causes increases in cardiovascular risk, complications, hospitalisation time and rate, healthcare costs, mortality, and morbidity.[2,3,5] Studies show that in patients with hypertension, non-adherence to treatment is neglected. Although being an important problem,[7] blood pressure control cannot be increased above 25% due to low adherence, and blood pressure of patients who are successful and willing to comply with treatment can be more easily controlled.[2,7]

Chronic diseases such as hypertension cause physical, psychological, social, and economical problems, affecting the independence of the individual and increasing their care needs.[8] Therefore, another important factor that is effective in controlling hypertension is increasing knowledge and awareness about the disease.[9] Studies have reported that hypertension patients have moderate or low levels of knowledge about the disease, and patients have a lack of information about the risk factors of hypertension, complications, normal blood pressure values, factors that increase blood pressure, nutrition in hypertension, treatment adherence, and long-term treatment.[10,11] Lack of information about hypertension is one of the most important reasons for ignoring high blood pressure in society. Training of patients is very important in optimising blood pressure and regular monitoring.[12]

The increasing prevalence of hypertension worldwide also increases the importance of treatment as well as providing patients with self-management skills through various training and support programs.[13] Self-management is the art of self-managing the disease, which includes the ability of individuals with chronic diseases to manage the symptoms, treatment, and care of the disease, and to make lifestyle changes in the physical, psychological, and social aspects.[14] The content of self-management support in patients with hypertension consists of teaching knowledge and skills on nutrition, physical activity, disease treatment, complications, drug therapy, regular monitoring, lifestyle changes, and blood pressure monitoring at home. Studies have reported that self-management support increases awareness of the importance of the disease in hypertensive patients,[15] provides motivation for personal control over the disease, positively affects clinical outcomes, and increases the number of days patients allocate for physical activity.[16]

The World Health Organization draws attention to the fact that nurses create awareness in society through training to achieve success in combating hypertension.[17] Nurses can increase control over the disease through initiatives that support individuals' self-management. In this study, it was aimed to determine the effect of self-management support given to patients diagnosed with hypertension on the hypertension knowledge level, treatment adherence and self-care management, and to examine the change in blood pressure of patients after the self-management support.

STUDY DESIGN AND METHODS

DESIGN

The study, conducted between July 2017 and August 2018, was designed as a randomised controlled intervention study.

PARTICIPANTS

The study population comprised patients with hypertension from the Internal Medicine and Cardiology Outpatient Clinic of a hospital providing secondary care in Edirne province of Turkey. Power analysis was used to determine the sample size. There is not enough data in the literature on the effects of self-management support given to hypertensive patients on hypertension knowledge level, compliance with treatment, self-care management, and blood pressure values. For this reason, it was calculated that at least 64 patients should be included in each of the intervention and control groups, with a 5% margin of error and 80% power value to test the moderate effect size (d=0.5) regarding self-management support. Considering the possible losses during the research process, 70 patients were included in each group. Randomisation was determined by using the Researcher Randomizer program (Urbaniak G. C. & Plous S., Research Randomizer; www.randomizer.org), provided that the number of individuals in the intervention and control groups were equal, regardless of the age and gender characteristics of the participants. The research involved patients that were followed up for at least six months with the diagnosis of essential hypertension, using antihypertensive medication, having a semi-automatic blood pressure monitor that measures blood pressure from the upper arm, communicative, and aged between 18-65. Patients who had changes in antihypertensive drug treatment in the past month, who had other accompanying chronic diseases and documented cognitive impairments were excluded from the study.

DATA COLLECTION TOOLS

Patient Information Form: Patient information form developed by the researchers includes the socio-demographic and disease-related characteristics of the patients.

Hypertension Knowledge-Level Scale: The scale was developed by Baliz Erkoc et al. in Turkey to measure patients knowledge level of hypertension.[18] The scale consists of 22 expressions. It has six sub-dimensions including definition, medical treatment, adherence to medication, lifestyle, diet, and complications. The expressions in the scale are in the form of a full sentence that can be true or false, and participants are asked to evaluate each statement in the scale as true, false, or I do not know. Correct answers are worth 1 point, wrong answers or I do not know are worth 0 points. The total score that can be obtained from the scale varies between 0-22, and as the obtained score increases, the hypertension knowledge level increases. In the validity and reliability study conducted by Baliz Erkoc et al., it was reported that the Cronbach's alpha values of the sub-dimensions of the scale ranged from 0.59 to 0.92, and the total Cronbach's alpha value of the scale was 0.72.[18] In this study, the Cronbach's alpha value of the scale was found to be 0.80 in the first interview, and 0.86 in the last interview in the intervention group, and 0.86 in the first interview and 0.87 in the last interview in the control group.

Hill-Bone Compliance to High Blood Pressure Therapy Scale: Turkish validity and reliability of the scale developed by Kim et al. were performed by Karademir et al.[19] The Four-point Likert (0=never, 3=always) scale consists of 14 questions. The scale has three sub-dimensions including interview, medical and nutrition sections. The total scores that can be obtained from the scale vary between 0 and 42, while 0 points indicate perfect adherence to the treatment, and adherence to the treatment decreases as the score increases. In the validity and reliability study conducted by Karademir et al., it was reported that the Cronbach's alpha values of the sub-dimensions of the scale ranged from 0.62 to 0.83, and the total Cronbach's alpha value of the scale was 0.72.[19] In this study, the Cronbach's alpha value of the scale was 0.85 in the first interview and 0.89 in the last interview in the intervention group, 0.84 in the first interview and 0.80 in the last interview in the control group.

Self Care Management Process in Chronic Illness Scale: Turkish validity and reliability of the scale developed by Jones et al. were performed by Hancerlioglu.[20] The Five-point Likert scale (1=strongly disagree, 5=strongly agree) consists of 35 items with two sub-dimensions including self-protection and social protection. Total scores that can be obtained from the scale vary between 35-175 points, and the increase in the score indicates an increase in self-care management of the individual. In the validity and reliability study conducted by Hancerlioglu, it was reported that the Cronbach's alpha values of the sub-dimensions of the scale ranged from 0.68 to 0.83, and the total Cronbach's alpha value of the scale was 0.85.[20] In this study, Cronbach's alpha value of the scale was 0.89 in the first interview and 0.91 in the last interview in the intervention group, 0.88 in both the first and the last interview in the control group.

DATA COLLECTION PROCEDURE

Study data were collected through face-to-face interviews with patients. The interviews were held in the training room of the hospital. Three interviews were conducted with the intervention group (n=70), the first interview, the self-management support interview, and the final interview. Two interviews were made with the control group (n=70), the first and the last. Patient Information Form, Hypertension Knowledge-Level Scale, Hill-Bone Compliance to High Blood Pressure Therapy Scale, and Self Care Management Process in Chronic Illness Scale (pre-test) were filled in the first interview with patients in both the intervention and control groups. The blood pressures of the patients in both groups were measured and recorded by a researcher. A calibrated semi-automatic sphygmomanometer was used to measure blood pressure from the upper arm. The first interview took approximately 25-30 minutes for each patient.

After the first interview, the patients in the control group did not receive any intervention other than the routine recommendations of the outpatient clinic physician, and an appointment was made three months later for the last interview. Patients in the intervention group were given an appointment for self-management support one week after the first interview. Patients were asked to measure their blood pressure twice a day, in the morning and the evening for one week until this appointment date, and record each measurement. They were asked to bring their blood pressure records and their blood pressure monitors when coming to the self-management support interview. The patients were reminded by phone one day before the appointment date.

The self-management support interview was conducted one-on-one by the researcher in the training room of the hospital, using the face-to-face interview method. The content of the self-management support made in this meeting was determined in line with the literature (1, 2, 3, 21). During the face-to-face meeting within the scope of self-management support;

- Information about the definition of hypertension, treatment methods, how to manage drug therapy and the importance of treatment adherence;
- Information about healthy lifestyle changes such as diet, activity, and stress management that are effective in the management of hypertension;
- Information about what to consider before and during blood pressure measurement;
- The patients were taught skills on how to self-measure blood pressure at home. Patients were asked to measure their blood pressure using their blood pressure monitors in accordance with the technique taught. The procedure was repeated until the patients could correctly perform the measurement.

In addition, patients were given a Hypertension Management Information Booklet prepared by the researchers, containing the written and visual contents of the information conveyed to the patients by face-to-face interview method. The patients were given an appointment three months later for the last interview for the post-test application. One week before the last interview, they were asked to measure and record their morning and evening blood pressures using the same sphygmomanometer with the technique taught. Interviews with self-management support were conducted one-on-one and lasted approximately 60-90 minutes for each patient.

Patients in the intervention and control groups were given a call to remind of the appointment date one week before the last interview. Patients in the intervention group were reminded to take and record blood pressure measurements for one week. The Hypertension Knowledge-Level Scale, the Hill-Bone Compliance to High Blood Pressure Therapy Scale, and the Self Care Management Process in Chronic Illness Scale (post-test) were administered to both the intervention and control group patients on the last interview day. The blood pressures of the patients in both groups were measured and recorded by one of the researchers. Home blood pressure measurements of the intervention group were received.

One patient in the intervention group did not attend the interview, where self-management support was given, and two patients in the control group did not attend the post-test application. Thus, the research was completed with a total of 137 patients, 69 in the intervention group and 68 in the control group. The flow chart of the study is given in Figure 1. Hypertension Management Information Booklet was given to the patients in the control group after the post-test application in terms of benefit and ethical principles.

DATA ANALYSIS

The data were analysed in the SPSS (Statistical Package for Social Sciences for Windows) version 22.0 package program (IBM Armonk, NY, USA). Pearson chi-square test, Fisher-Freeman-Halton Exact Test, and independent samples t-test were used to test the equivalence between intervention and control groups, and descriptive statistics including mean, standard deviation, and frequency were used for socio-demographic and disease-related characteristics. Wilcoxon test and Paired samples test were used to determine the difference between repeated measurements, and Mann Whitney U test was used to compare quantitative continuous data between two independent groups. The statistical significance limit value was accepted as $p<0.05$.

ETHICAL CONSIDERATION

The study was approved by the Trakya University Faculty of Medicine Scientific Research Ethics Committee on 26.04.2017 and numbered 2017/126. Participants were informed about the purpose of the study in accordance with the Helsinki Declaration. Participants were voluntarily invited to participate in the study and their written informed consent was taken. The participants were informed that their personal data and privacy would be protected and they can leave the research at any time.

RESULTS

Sociodemographic and disease-related characteristics of the participants are summarised in Table 1. There was no significant difference between the sociodemographic and disease-related characteristics of the patients in the intervention and control groups ($p>0.05$).

TABLE 1: COMPARISON OF SOCIODEMOGRAPHIC AND DISEASE-RELATED CHARACTERISTICS BETWEEN THE TWO STUDY GROUPS (N=137)

Sociodemographic and clinical characteristics n (%)	Intervention group (n=69)	Control group (n=68)	t/X^2	p
Age (years) (Mean±SD)	56.23±6.96	57.58±6.35	1.191†	0.236
Gender				
Female	34 (49.3)	37 (45.6)	0.362‡	0.333
Male	35 (50.7)	31 (54.4)		
Education				
Primary School	39 (56.5)	43 (63.2)	0.642‡	0.423
Secondary and High School	30 (43.5)	25 (36.8)		
BMI				
Normal	3 (4.3)	3 (4.4)	1.064§	0.786
Overweight	42 (60.9)	36 (53.0)		
1st degree obese	20 (29.0)	23 (33.8)		
2nd degree obese	4 (5.8)	6 (8.8)		
Tea/coffee consumption				
Yes	56 (81.2)	59 (86.8)	0.789‡	0.255
No	13 (18.8)	9 (13.2)		
Alcohol consumption				
Yes	8 (11.6)	10 (14.7)	0.291‡	0.388
No	61 (88.4)	58 (85.3)		
Smoking				
Yes	20 (29.0)	23 (33.8)	0.372‡	0.355
No	49 (71.0)	45 (66.2)		
Time of HT diagnosis				
1-5 years ago	41 (59.4)	38 (55.9)	0.385§	0.825
6-10 years ago	19 (27.5)	22 (32.3)		
>10 years ago	9 (13.1)	8 (11.8)		
Antihypertensive drug treatment type				
Monotherapy	51 (73.9)	47 (69.1)	0.387‡	0.534
Combination	18 (26.1)	21 (30.9)		
Duration of antihypertensive drug use				
1-3 years	55 (79.7)	47 (69.1)	2.020‡	0.110
>3 years	14 (20.3)	21 (30.9)		
Ability to notice changes in blood pressure				
Yes	34 (49.3)	41 (60.3)	1.678‡	0.130
No	35 (50.7)	27 (39.7)		
Blood pressure monitoring at home				
Yes	37 (53.6)	43 (63.2)	1.302‡	0.167
No	32 (46.4)	25 (36.8)		
Disease-specific diet				
Salt-free	19 (27.5)	14 (20.6)	1.454§	0.483
Salt-free and fat-free	5 (7.3)	8 (11.8)		
No diet	45 (65.2)	46 (67.6)		

SD: Standard Deviation, †Independent Samples t-Test, ‡Pearson Chi-square test, §Fisher-Freeman-Halton Exact Test

TABLE 2: COMPARISON OF THE SCALE SCORES OF THE INTERVENTION AND CONTROL GROUP PATIENTS BEFORE AND AFTER INTERVENTION (N=137)

Variables	First Interview				Last Interview			
	Intervention group (n=69)	Control group (n=68)	Z¶	p	Intervention group (n=69)	Control group (n=68)	Z¶	p
Hypertension Knowledge Level (Mean±SD)								
Total Score	8.13±4.57	9.79±5.38	–1.763	0.078	20.08±3.07	1.48±0,81	–8.725	0.000*
Definition	0.98±0.89	1.16±0.89	–1.154	0.249	1.66±0.53	1.48±0.81	–0.724	0.469
Medical Treatment	1.24±1.47	1.35±1.45	–0.577	0.564	3.58±0.79	1.73±1.45	–7.147	0.000*
Adherence to Medication	1.65±0.99	1.82±1.18	–0.656	0.512	3.65±0.68	1.82±1.18	–8.251	0.000*
Lifestyle	1.91±1.48	2.26±1.60	–1.253	0.210	4.75±0.75	2.33±1.69	–8.436	0.000*
Diet	0.50±0.79	0.64±0.84	–1.068	0.286	1.85±0.43	0.73±0.85	–7.522	0.000*
Complications	1.82±2.03	2.54±2.10	–1.964	0.051	4.58±1.26	2.86±2.22	–5.180	0.000*
Compliance with Hypertension Treatment (Mean±SD)								
Total Score	13.84±5.42	11.89±5.11	–2.284	0.022**	3.08±4.18	11.82±4.66	–8.926	0.000*
Medical	6.47±3.58	5.29±3.67	–2.017	0.044**	1.21±2.16	5.33±3.34	–7.475	0.000*
Nutrition	3.66±2.02	3.20±1.47	–1.193	0.233	0.53±1.10	3.32±1.52	–9.209	0.000*
Interview	3.69±1.41	3.39±1.55	–1.300	0.194	1.33±1.51	3.16±1.52	–6.614	0.000*
Self-care Management (Mean±SD)								
Total Score	110.55±14.31	111.20±14.06	–0.278	0.781	152.01±14.94	113.92±13.94	–9.402	0.000*
Self-protection	67.37±8.75	68.61±9.62	–0.539	0.590	93.10±8.67	70.08±9.41	–9.270	0.000*
Social protection	45.78±8.28	44.98±6.63	–0.677	0.499	62.47±8.46	46.36±6.93	–8.600	0.000*

Mann Whitney U test, *p<0.001, **p<0.05

Table 2 shows the preliminary test and final test mean scores of the patients in the intervention and control groups. While there was no significant difference between the hypertension knowledge level and self-care management total scores of patients in both groups (p>0.05), the total score of adherence to hypertension treatment was lower in the control group (p<0.05).

To determine the effect of self-management support on the hypertension knowledge level, treatment adherence, and self-care management of patients in the intervention group, the scores of the patients in both groups at the last interview were compared (Table 2). Accordingly, when compared with the control group, the Hypertension Knowledge-Level Scale total score (Z=-8.725, p<0.001), medical treatment (Z=-7.147, p<0.001), adherence to medications (Z=-8.251, p<0.001), lifestyle (Z=-8.436, p<0.001), diet (Z=-7.522, p<0.001) and complications (Z=-5.180, p<0.001) sub-dimension scores were higher for patients in the intervention group. After self-management support, treatment adherence total score (Z=-8.926, p<0.001), medical (Z=-7.475, p<0.001), nutrition (Z=-9.209, p<0.001), and interview (Z=-6,614, p<0.001) sub-dimension scores of intervention group patients were lower than the patients in the control group. After the self-management support, the total score of the Self Care Management Process in Chronic Illness Scale (Z=-9.402, p<0.001), self-protection (Z=-9.270, p<0.001), and social protection (Z=-8.600), p<0.001) sub-dimension scores of patients in the intervention group were higher compared to the patients in the control group.

In the first interview, there was no statistically significant difference between the mean blood pressure values measured by the researcher in patients in the intervention and control groups (Table 3). To determine the effect of self-management support on the blood pressure of patients in the intervention group, the mean blood pressure values measured by the researcher in the last interview of patients in both groups were compared (Table 3). Accordingly, when compared with the control group, patients in the intervention group were found to have lower systolic (t=-6.049, p<0.001) and diastolic (t=-7.192, p<0.001) blood pressure as measured by the researcher.

In the study, morning and evening blood pressure mean values measured at home for one week before and after self-management support were compared (Table 4). In the last interview after self-management support, it was determined that there was a significant decrease in the morning and evening systolic and diastolic blood pressure values of the patients in the intervention group (p<0.001).

TABLE 3: COMPARISON OF THE BLOOD PRESSURE MEAN VALUES OF THE INTERVENTION AND CONTROL GROUP PATIENTS MEASURED BY THE RESEARCHER IN THE FIRST INTERVIEW AND THE LAST INTERVIEW (N=137)

Blood Pressure	First interview				Last interview			
	Intervention group	Control group	t†	p	Intervention group	Control group	t†	p
Systolic BP (Mean±SD)	138.08±7.05	136.75±7.78	1.054	0.294	128.52±5.35	134.88±6.86	–6.049	0.000*
Diastolic BP (Mean±SD)	90.68±6.23	90.42±5.96	0.244	0.807	83.85±4.36	89.54±4.89	–7.192	0.000*

BP: Blood Pressure; †Independent Samples t-Test, *p<0.001

TABLE 4: COMPARISON OF MORNING AND EVENING HOME BLOOD PRESSURE MEAN VALUES MEASURED BY INTERVENTION GROUP PATIENTS BEFORE AND AFTER SELF-MANAGEMENT SUPPORT (N = 69)

Blood Pressure	Morning				Evening			
	Before self-management support	After self-management support	t††	p	Before self-management support	After self-management support	t††	p
Systolic BP (Mean±SD)	134.71±8.09	127.18±6.59	9.391	0.000*	135.51±7.43	127.67±5.55	10.855	0.000*
Diastolic BP (Mean±SD)	89.00±5.06	83.05±4.28	11.134	0.000*	89.73±5.04	83.58±3.85	11.412	0.000*

††Paired samples test, *p<0.001

DISCUSSION

To the best of our knowledge, there are a limited number of studies in the literature that examine self-management support in patients with hypertension, and there are a limited number of intervention studies examining the effects of self-management support.[16,21,22] The results of our study showed that self-management support is effective in hypertension patients increasing knowledge about the disease, adherence to treatment, self-care management, and lowering blood pressure. Self-management support has been evaluated in studies conducted with individuals with different chronic diseases, and this intervention has been reported to have positive effects in improving health and controlling the disease.[22,24] Our study results are compatible with previous studies conducted with different patient populations, providing positive evidence for the use of self-management support in hypertensive patients.

In our study, it was found that the self-management support applied to hypertension patients significantly increased the total scores of the hypertension knowledge-level, medical treatment, adherence to medication, lifestyle, diet, and complications sub-dimensions. In similar studies, it is reported that the disease-specific education programs given under the leadership of nurses have a significant and positive effect on increasing the level of knowledge in patients with hypertension.[22,25,26] In this study, the increased hypertension knowledge level in patients in the intervention group after self-management support confirms that it is effective to apply self-management support programs in patients with hypertension.

The time allocated to patients within the scope of routine outpatient services around the world is quite limited. After the diagnosis of hypertension, the patient cannot be allocated enough time to be informed about the disease.[12] Turkey has specialised units such as infection control nursing, diabetes nursing, stoma, wound care nursing, and hemovigilance nursing, however, there are no special nursing units for cardiovascular diseases. It is thought that increasing the time allocated to hypertension patients and ensuring that patients are adequately informed can only be possible by establishing a cardiovascular rehabilitation nursing unit. Otherwise, the patients' knowledge about their diseases is limited to what they have acquired through their efforts or heard from the people around them.[12,27] Self-management support given to patients including the information about hypertension, hypertension-related complications, the methods used in treatment, the importance of regular medication use, and adherence to treatment, diet, activity, stress management that are effective in the management of hypertension. Therefore, after the self-management support, patients in the intervention group could have more detailed information about hypertension compared to patients in the control group.

Hypertensive patients who do not comply with treatment display unhealthy behaviours such as not having regular monitoring and checkup, not believing in the benefit of medications when they feel better or worse, consciously or unconsciously taking medications with a missing dose or not taking at all, taking too many calories, taking too much sodium and fat in the diet, smoking, and inadequate physical activity.[2] Therefore, it is reported that the incidence of complications, mortality, and morbidity increases in these patients.[2,5] In our study, there was a significant difference in treatment adherence between the intervention and the control groups in favor of the control group, and the adherence of the control group patients to the treatment was better than the patients in the intervention group. However, after the self-management support was given, it was found that the treatment adherence in patients in the intervention group significantly improved in all dimensions including medical, nutrition, and interview. Studies have shown that different intervention studies such as home visits,[22] community-based health education programs[25] and disease-specific education programs[28] significantly improve patients' adherence to treatment. In fact, in a study where the effect of self-management was evaluated in controlling hypertension, it was reported that the rate of regular use of medication increased from 55 to 77% after the training.[21] Education and counselling are among the roles that nurses use their autonomy at a high rate.[29] By using these roles, nurses can increase the adherence of patients to the treatment as well as their knowledge and awareness about the diseases through the support programs they will provide to the patients.

The patients to effectively manage their self-care improves their quality of life and reduces complications, hospitalisations, morbidity, and mortality associated with the disease.[30,31] In this respect, self-care management enables patients with hypertension to have control over the disease and solve their problems on their own.[20] It was found that the self-management support implemented in our study significantly increased self-care management, including the dimensions of self-protection and social protection in patients in the intervention group. In similar studies conducted in line with the results of our study, it is reported that programs that include decision support, clinical information, and self-management provide significant improvements in the self-care behaviour of hypertensive patients and increase their self-care management levels.[16,26,32] Self-management support is thought to be an effective intervention in terms of providing the patients with the knowledge, skills, and motivation that enable them to self-manage their disease.

There is a consensus in the European Society of Cardiology (ESC) Guidelines for the Management of Arterial Hypertension that the optimum blood pressure value should be SBP<120 mmHg and DBP<80 mmHg.[3] Keeping blood pressure under control and keeping it at an optimum level is the basis of hypertension treatment. In this study, the mean blood pressure values measured by the researcher at the first interview were in the Stage I hypertension classification in both the intervention and control groups.[3] After self-management support, it was determined that there was a significant decrease in the blood pressure of patients in the intervention group, and the mean blood pressure values measured by the researcher were in the normal classification according to the ESC Guidelines for the Management of Arterial Hypertension.[3] The results of our study are consistent with the results of other studies in the literature and show that self-management support[16,32,33], and disease-specific education[25,34,35] have a significant effect on decreasing systolic and diastolic blood pressure values.

Within the scope of the self-management support implemented in the study, the patients were taught the ability to measure blood pressure on their own. The training was given on what to consider before and during the measurement and how to do the measurement. After self-management support, it was determined that there was a significant decrease in blood pressure values measured by the patient at home in the intervention group, from high to normal category.[3] The self-measurement of blood pressure by patients increases their adherence with the treatment and makes it easier to control the blood pressure.[3,36,37] Self-blood pressure measurement at home is effective in the success of the treatment by ensuring that the patient is included in the treatment process.[3] We can say that self-management support and teaching the patient how to measure blood pressure are effective in ensuring both control of the disease and control of the blood pressure.

CONCLUSION

Self-management support increased the hypertension knowledge levels, adherence to treatment, and self-care management of hypertensive patients and provided a significant decrease in systolic and diastolic blood pressure. This study provides information that can help healthcare professionals organise programs aimed at informing patients diagnosed with hypertension about the disease and developing their self-management skills.

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RESEARCH ARTICLES

Facilitating personal hygiene choices for renal patients with central venous lines: a multi-phase study

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ABSTRACT

This study explored personal hygiene options of renal patients that maintain the integrity of central venous catheter exit site dressings between dialysis sessions.

Background: Infection is a major life-limiting risk for patients undergoing haemodialysis via a central venous catheter. Meticulous attention to keeping the exit site dressings clean and dry is an essential defence in preventing local and systemic infections. It is difficult to maintain the integrity of water-resistant dressings in tropical environments.

Study Design: A three-phase exploratory study was conducted in a northern Australian Renal Service.

Methods: Phase 1 employed a cross-sectional, anonymous, online survey of renal nurses about the acceptability and feasibility of two hygiene options for patients: bathing wipes and a waterproof dressing cover. The survey also canvassed their concerns about the options. Descriptive statistics were used to summarise Likert-scale responses and content analysis was used for responses to open-ended survey questions. Phase 2 used conversational-style interviews with patients about their hygiene preferences, how they endeavoured to keep their dressings dry, and their impressions regarding the proposed options. Phase 3 was a series of case studies of patients trialling the provided options over a six-week period. Participants were progressively recruited to this phase and were provided with the product/s of their choice at each dialysis session; renal nurses also assessed the integrity of the dressings at each dialysis session. Research nurses discussed with the participants their experiences with the options.

Results: Phase 1: Nurses (N=37, response rate 58.7%) considered both options acceptable and feasible for patients, noting some practical concerns related to their use. Phase 2: Patients (N=27, 100% participation rate) described hygiene preferences and difficulties they encountered with keeping dressings dry. Only one participant had a bath, as per written advice. All were enthusiastic about trying the proposed options. Phase 3: Patients (N=22) appreciated being able to shower without wetting their exit site dressings. Individuals were inventive in modifying

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the application and use of the waterproof cover according to their body shape and the central venous catheter exit site location. Although participants liked both options, the waterproof covering was most popular and most frequently used. Intactness of the dressings was 83% during the trial; there were no central venous catheter-associated infections during the study.

Conclusion: Self-management and choice were motivating factors for participants. Patients embraced being able to keep their dressings dry and intact during personal hygiene in a tropical environment.

Implications for research, policy, and practice: Patients demonstrated their willingness to undertake a more active role in their dressing care, while exercising choice with respect to personal hygiene. Studies that further increase patients' participation in other aspects of their self-care warrant further investigation. The organisation is pursuing options for the ongoing provision of the products used in this study and how their use can be monitored in clinical practice.

What is already known about the topic?

- Intact dressings provide an important line of defence against infection in the vulnerable population of patients receiving dialysis via central lines.
- Hygiene needs are also an important consideration for quality of life, empowerment, and autonomy.
- Patients' current attempts to meet their own hygiene needs often result in a disruption to the intactness of the dressing site and predispose them to systemic infections.

What this paper adds

- This study facilitated exploration of two feasible hygiene options in an open and culturally safe manner, from both patients' and nurses' perspectives.
- The opportunity to perform personal hygiene according to individual preferences resulted in a willingness of participants to undertake a more active role in the care of their dressing.
- The identification of two acceptable and feasible personal hygiene options has the potential of removing one of the many lifestyle modifications faced by people who undergo haemodialysis via a central venous catheter.

Key words: Behaviour change; central venous catheter; chronic condition self-management; hygiene; wound dressing care

OBJECTIVES

This study aimed to explore patients' personal hygiene options while maintaining the integrity of their central venous catheter (CVC) exit site dressings between dialysis sessions. The objectives were to:

1. Identify enablers and barriers to patients using different options for their personal hygiene, as perceived by the nurses working within the Townsville Renal Service;
2. Ascertain feedback from patients with a CVC *in situ* about their preferences regarding personal hygiene between dialysis sessions; and
3. Evaluate participants' experiences with being supported to use different options to assist with their personal hygiene between dialysis sessions

BACKGROUND

There are many reasons for CVC access for haemodialysis, including late referrals, patients' preferences and patients' fear of pain associated with needling of fistulas.[1] Patients' preferences may mean that CVC access becomes long-term, even if they are aware that CVC exit sites are more likely to lead to systemic infections.[1] The risk of hospital-acquired bacteraemia is very real, with serious consequences for the patient and significant cost to the organisation. In Australia, the prolonged length of hospital stay associated with central line infections may cost a hospital up to AUD$34,843.[2] Patients with invasive devices such as CVCs and those who have multiple morbidities, such as those undergoing haemodialysis for kidney failure, have a greater infection risk than patients without such complications.[2,3]

Meticulous attention to CVC exit site care, which includes a dry, intact dressing, is essential to prevent bacterial contamination.[4 5] In a crossover randomised controlled trial of an opaque dressing and a transparent dressing conducted in the tropics, both dressings remained fully intact between dialysis sessions less than 70% of the time.[5] Nurses are keenly aware of the risks of acquiring infections from wet dressings and the risks associated with patients changing their own dressings.[1] There are no standardised approaches to teaching patients the principles of managing their CVC exit site dressings, such as how to keep the dressings dry, how to replace dressings that have loosened between dialysis sessions, how to replace dressings that have become wet during showering, or how to care for exit sites in 'difficult to reach' areas such as the groin.[6] Patients are sometimes given extra dressings to place over an exit-site dressing when they shower, but this does not guarantee that the dressing itself stays dry. Such practices do not encourage self-care by the patient; nor is this practice evidence-based.[7]

In addition to the numerous daily lifestyle adaptations associated with haemodialysis, many patients who live in rural and remote areas of Australia need to relocate to a regional city that may be hundreds of kilometres from their home, to live in shared accommodation with little family support. Although patients have been able to maintain the integrity of their CVC dressings and reduce their risk of CVC-related infections by covering their site when they have a shower,[1] wound dressings are water-resistant rather than waterproof, and adhesives may fail in hot, humid climates. Supporting patients to attend to their personal hygiene as they wish is respectful and dignified care that may give back some control to the individual patient who requires haemodialysis long-term.

There are several frameworks for considering behaviour change, such as that required by patients undergoing haemodialysis.[8-11] This study was guided by the 'COM-B system' framework which has three essential components: capability; opportunity; and motivation for changing the behaviour. The person must be capable (psychologically and physically) of the behaviour, and be motivated to change, along with the opportunity for the desired behaviour to occur.[8] Each of the three components (capability, opportunity, motivation) can influence the other. The COM-B framework has been used in other research about lifestyle research[10,12,13] including that involving Aboriginal and Torres Strait Islander participants.[14] This framework guided the design, implementation, analysis and interpretation of results.

In a study of self-care dialysis patients, the support of nursing staff was considered essential to their ongoing self-management.[15] Discussions about personal hygiene practices can be quite confronting and need to be non-judgemental and culturally sensitive. Patients attending one north Australian Renal Service live in a range of accommodation types including shared or temporary accommodation and hostels,[16] and individuals attend to their hygiene in many ways. Patients may not have access to a bath, recommended as safer than a shower.[17] There are products that can be used instead of showering/bathing (e.g. bath wipes) and there are waterproof products that can be placed over CVC exit site dressings to protect them during showering/bathing. Understanding patients' hygiene preferences is critical to providing patient-centred care and promoting patients' dignity.

METHODS

STUDY DESIGN

This was a three-phase mixed methods exploratory study corresponding to the study's three objectives. Phase 1 was a cross-sectional survey of renal nurses. Phase 2 used a qualitative narrative design for the initial patient interviews, and Phase 3 used a multiple case study (qualitative) approach[18, 19] for the patient participants. The findings in Phases 1 and 2 informed Phase 3 participant selection.

SETTING

The setting for all three phases was a Renal Service in a regional city within the tropical region of northern Australia. The sample, recruitment, outcome measures, data collection, and data analysis varied by phases and are described separately for each phase.

PARTICIPANTS AND RECRUITMENT

Phase 1: All nurses (N=63) working in the Renal Service at the time of survey distribution were invited to complete an anonymous online questionnaire, which was distributed in late August 2018. Two reminder emails were sent. The only exclusion criterion was being a member of the research team.

Phase 2: All patients (N=27) undergoing haemodialysis via a CVC, at the time of data collection toward the end of 2018, were invited to participate in a conversational style, semi-structured interview about their hygiene preferences (such as frequency, bath/shower), and their initial thoughts about two hygiene products – bath wipes and a waterproof dressing cover (the interventions). There were no specific exclusion criteria.

Phase 3: Patients with a CVC (n=22), assessed by nursing staff to have the dexterity to use the different options while they showered/bathed, were invited to participate in the study. Exclusion criteria were: a previous skin reaction to the products being trialled; an exit site or CVC-related infection at the time of recruitment; unable to provide informed consent; medically unstable at the time of recruitment. Recruitment to this phase began in January 2019.

THE INTERVENTIONS

Two products were made available to participants. The first was a packet of eight, disposable bath wipes that could be heated and/or cooled ('Bath in bed wipes', Reynard Health Supplies), each wipe measuring 33cm by 23cm, and cost less than AUD$1 per pack. The other product was a waterproof cover ('Keep Dri Dressing', Sutherland Medical Pty Ltd) that was placed over the exit site dressing and removed and disposed of after showering. The cover was available in two sizes, 23cm by 17cm and 26cm by 23cm depending on patient preference. Each individual cover cost a little over AUD$1 and were available in packs of five or 25.

DATA COLLECTION

Phase 1

A questionnaire was developed by the research team on the Qualtrics platform, with iterative revisions pre-tested. Photographs and descriptions of the options were included within the questionnaire to stimulate recognition if participants had used the options previously. The questions focused on the advice nurses usually gave patients about managing their CVC exit site, and the acceptability, feasibility, benefits, and barriers to the use of each option. There were no questions regarding the demographic characteristics of the respondents, to preserve anonymity.

Phase 2

An informal interview guide was developed with questions that sought to elicit open discussions about actual hygiene practices in a non-judgmental, plain English style. Because a large proportion of prospective participants were Aboriginal and/or Torres Strait Islander, a conversational interviewing style was used, congruent with the 'yarning' method of Indigenous research.[20] These short (no longer than 10 minutes) conversations were not audio recorded, but rather the interviewer took handwritten notes. Participants were asked about: their usual hygiene practices and routines at home; ways they tried to keep their dressing dry while bathing or showering; and whether those strategies were successful. They were then shown the two products and discussed if they thought these would be helpful for them. Data for this phase was collected between September and November 2018. There were no questions related to patient characteristics; behavioural details related to matters of hygiene are presented in the results.

Phase 3

Participants were provided with the product/s of their choice as they attended dialysis (either two or three times per week) over a six-week period. At each dialysis session, the CVC exit site was inspected by the renal nurses for dressing intactness and dryness. Intactness was defined as "all four edges of the dressing remaining adhered to the skin".[16] At least weekly, a research nurse used an informal 'yarning' conversational approach as in Phase 2, to talk with the participants about their experiences with the products, how they attended to their hygiene and whether the dressings remained dry. Data were collected about select patient characteristics: age, sex, ethnicity, and catheter insertion site.

DATA ANALYSIS

Descriptive statistics were used to summarise the Likert-style survey responses. Responses to open-ended survey questions were analysed using content analysis[21] with the codes derived from the objectives of the study. One researcher (WS) led the analysis of the conversational interview notes and mapped the findings to the elements of the COM-B Model. All team members then reviewed and discussed the analysis. Exemplars of patient stories are presented to highlight emergent themes.

ETHICAL CONSIDERATIONS

As part of the research ethics approval process, the researchers met with the Health Service's Aboriginal and Torres Strait Islander Health Leadership Advisory Council to ensure that the study incorporated the values and principles underpinning research with Aboriginal and Torres Strait Islander Peoples,[22] and that study documents were culturally appropriate. This advice led to the development of strategies to mitigate the risk of coercion. The Leadership Council also advised on the wording of the study documents to facilitate informed consent/decline. Participants were able to provide written or verbal consent or indicate their consent drawing a cross. The Health Service's Human Research Ethics Committee approved the study (HREC/18/QTHS/46).

RESULTS

PHASE ONE

The link to the questionnaire was emailed to all 63 nurses working within the Renal Service; 47 nurses consented to participate, and 37 questionnaires were completed, giving a response rate of 58.7% (37/63). More than half of the respondents agreed that providing either the bath wipes or waterproof dressing cover to patients to assist with their hygiene needs between dialysis sessions would be both acceptable and feasible. Even though the nurse respondents were least familiar with the waterproof cover, it was rated overall as more acceptable (81%) and feasible (70%) than the bath wipes (61% and 51%, respectively) (Refer to Table 1). The mode for all responses was "Agree".

Nurses identified many benefits of patients using bath wipes between dialysis sessions. The most frequently identified benefit was that patients did not have to take either a bath or a shower, both of which potentially led to wet dressings and infections. Nurses indicated that the wipes might be an easy option for those patients who currently have difficulty meeting personal hygiene needs, with a subsequent improvement of their self-esteem, or that it would reduce the likelihood of patients forgetting about the need to keep their dressings dry because they would not be standing in the shower. Using the wipes would negate the need to try and cover the dressing with plastic and tape, advice that some respondents gave to patients. The wipes were perceived as particularly beneficial for non-ambulatory patients.

The continued availability of the product and ongoing costs were potential barriers noted by some nurses to the use of bath wipes between dialysis sessions. The nurses queried whether the product would be as refreshing as having a

TABLE 1: NURSES' ACCEPTABILITY AND FEASIBILITY OF THE TWO OPTIONS

	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
Acceptability of interventions:					
It would be acceptable to provide bath wipes to renal patients as a way to meet their hygiene needs between dialysis sessions (n=36)	5 (14%)	17 (47%)	7 (19%)	4 (11%)	3 (8%)
It would be acceptable to provide waterproof dressing covers to renal patients as a way to meet their hygiene needs between dialysis sessions (n=37)	11 (30%)	19 (51%)	6 (16%)	0 (0%)	1 (3%)
Feasibility of interventions:					
It would be feasible to provide bath wipes to renal patients as a way to meet their hygiene needs between dialysis sessions (n=37)	2 (5%)	17 (46%)	11 (30%)	4 (11%)	3 (8%)
It would be feasible to provide waterproof dressing covers to renal patients as a way to meet their hygiene needs between dialysis sessions (n=37)	7 (19%)	19 (51%)	10 (27%)	0 (0%)	1 (3%)

shower or bath in a tropical climate, or whether the patients would feel as clean using the wipes compared to having a shower. Practical aspects such as whether the eight wipes included in each pack would be adequate for some of the larger patients, whether the patients might feel cold when using them, and disposal of the used wipes, were also noted as potential barriers to their use. Also, use of bath wipes did not resolve how patients wash their hair, which they may usually do in the shower.

The opportunity for patients to shower safely if they used a waterproof dressing cover, keeping their dressing dry and intact, was overwhelmingly the major benefit of this option, according to nurses. One nurse commented that the provision of a waterproof cover for the dressing would be less suggestive to patients that there was any deficit in their personal hygiene and would respect patients' preference for traditional methods of attending to their personal hygiene (showering or bathing) rather than using wipes.

There were some very practical responses to the question about barriers to patients using the waterproof dressing cover, including: patients may have difficulty applying the waterproof cover, or forget to use it before they get into the shower, which could lead to the exit site getting wet; patients may not remove it after showering, which may lead to accumulation of moisture around the exit site; it may not adhere to the skin of "hairy men"; some patients may be allergic to the product; concerns that it may not suit femoral catheters, or that it may give the patient a false sense of security when bathing, or that the patients may believe that they could go swimming with this cover in place. Another concern was that patients may accidentally remove the exit site dressing at the same time as removing the waterproof cover, which would leave the CVC exit site exposed. There were also concerns about the ongoing cost, continuity of supply and waste disposal of the product.

PHASE TWO

All 27 patients with a CVC *in situ* at the time of recruitment consented to participate in the study. Usual hygiene practices varied from showering independently (n=22); (six patients used a hand-held shower, 14 a fixed shower head), to showering with assistance (n=3), or taking a 'bird bath' rather than a shower or bath (n=2). The phrase 'bird bath' is a local colloquialism and refers to sitting or standing at a sink and then selectively splashing water on parts of the body or using a wet and/or soapy washcloth/face flannel to do so. Only one patient had a bath as per the written advice provided to them.

Participants detailed quite elaborate and time-consuming actions they took to keep their dressings dry. One patient who covered her dressing with a towel folded in three to try and keep it dry (often unsuccessfully) when she showered every second day, was non-committal about trying the bath wipes but was highly motivated to start using the waterproof cover immediately. Another patient saw the benefit of the waterproof cover because she "struggles with keeping the dressing dry", despite taking a lot of care when using a hand-held shower. This patient, although not as keen to try the bath wipes, had seen them previously in hospital and felt they would potentially be useful on days she didn't shower. Another patient thought the wipes felt thick and they could perhaps be used in place of one of her twice-daily showers. One patient, who patted his dressing dry if it got wet even after he tried to avoid the area around the catheter by using a hand-held shower, was adamant that the wipes "wouldn't clean him" but was very motivated to try the waterproof cover. He even hoped he could swim with the cover, which evoked some nurses' concerns.

Generally, participants expressed a preference for showering and feeling the water on their skin. For example, a woman with a femoral dressing who tried to shower herself twice daily under a fixed shower head thought the cover "would be better and easier than [plastic] wrap" but was not so keen on trying the bath wipes because she said she would always prefer a shower. Some participants raised concerns, however, about their capability of using the waterproof cover. For example, one participant who showered herself but had someone in the house in case she should fall, said, "If I put it [the cover] over that [the dressing] I might peel the whole thing off". This echoed a concern of the researchers, and one of the inclusion criteria for participants in the third phase of the study having the manual dexterity to apply and remove the cover. A younger patient who "likes the water running over [her] skin" was willing to try the bath wipes. But she was also keen to try the waterproof cover, saying it "might cover the lines too so they don't get wet – good". Another participant said that although the wipes felt nice on her hands, she would continue with having a shower and did not wish to change her hygiene routines. Yet another participant was very excited at the possibility of using the waterproof cover, saying, "at last I can have a shower without a garbage bag on". The two women who had a 'bird' bath/sponge had slightly different responses to the options offered. One was not that interested in the wipes but was extremely happy to think that she could shower again by using the waterproof cover. The other was willing to try the bath wipes and seemed to like that they can be warmed. But her eyes 'lit up' when shown the waterproof cover and said that her daughter or husband could help stick it on because "showers are better, cleaner".

PHASE THREE

Twenty-two patients (13 women, nine men; aged between 24 and 89 years) were progressively recruited to this phase commencing mid-January 2019, with data collection completed end-July 2019. Ten participants (45.5%) identified as Aboriginal and/or Torres Strait Islander; other participants were either Caucasian (n=11, 50%) or Asian (n=1, 4.5%). Catheters were inserted into the right internal jugular vein (n=16), left internal jugular vein (n=3), left femoral vein (n=2) or the right femoral vein (n=1).

The waterproof dressing covers were most popular, and most frequently used, being supplied 247 times compared to 120 times for the bath wipes. One patient used only bath wipes, and two participants only used the waterproof dressing cover. No participant had signs or symptoms of an infected CVC site while participating in the study. There is some missing audit data related to either patients not attending all their scheduled dialysis sessions or data collection forms being incomplete. Exit site dressings were intact 236/283 (83.4%) of the completed audits. Eleven individuals' dressings were fully intact on all audits. The lowest fully intactness rate was 22.9% (two of the nine completed audits) for one participant. Only 16/312 (5.1%) dressings were wet at the time of dialysis; 14 of the 22 participants (63.1%) always presented to dialysis with a dry dressing. However, 29/299 (9.7%) dressings were assessed as having been wet between dialysis sessions but were dry by the time of dialysis.

In this phase, participants described how they experimented with the products, particularly with the waterproof dressing cover. A 52-year old woman said the dressing covers were fine once she used tape to reinforce the edges. A 48-year old woman said that the dressing covers were "fantastic" and showering was "less stressful" although sometimes they came unstuck when she raised her arms. Sometimes participants needed assistance to apply the waterproof dressing cover but once it was in place showering was much easier. Sometimes the patients forgot to use it, whilst a middle-aged man said he sometimes did not use it because it was time-consuming putting it on.

Participants who used the bath wipes commented that they felt clean and refreshed. Not needing assistance to use the bath wipes was a positive experience for several participants, and they chose them over the waterproof dressing cover so that they could be independent.

Examples of four patients' experiences, representative of participants, are now presented. A 52-year old woman who lives in the city with family support told the researcher in Phase 2 that she had a bird bath to ensure she kept her dressing dry. She used both products during Phase 3 and said that the waterproof cover was better and loved being able to shower again. It made her feel good, and she was smiling when talking about her experiences; her son corroborated his mother's preference for the waterproof cover. Her CVC dressing was dry and fully intact at 100% of the audits, even though she occasionally missed a dialysis session (which meant that her dressing needed to remain *in situ* for longer).

A 79-year old woman told the researcher in Phase 2 that she used a hand shower, every second day. She used and liked both options over the six weeks in Phase 3. She found the bath wipes easier to use, saying that she sometimes found it difficult to remove the waterproof dressing cover from her "thin skin". However, using the waterproof cover was "terrific, you can use both hands" which made washing her hair and washing under her right armpit (the side her catheter was located) easier. Her CVC dressing was dry and fully intact at 100% of her dialysis sessions.

A 59-year old man who did not participate in Phase 2, used only the waterproof cover in Phase 3. He felt clean after his daily shower and said that it sealed well on his hairy chest, without giving him a "wax" when removed. His CVC dressing, however, was fully intact at only 3/11 (27%) of his dialysis sessions, most likely due to diaphoresis. It was dry on all but one dialysis session (10/11, 91%), indicating he managed to protect his exit site reasonably well.

A 58-year old woman with limited vision who previously had to pat her dressings dry with a towel after showering, found that the waterproof cover minimised the itching associated with a wet exit site dressing. Although she needed a little help from her carer to apply and remove the waterproof dressing cover because of her poor eyesight, she felt "more confident in the shower" and more independent. She commented "they are deadly", which is a positive expression of Australian Indigenous persons. During this phase, her dressings were intact 16/18 (89%) of the audits, were always dry at the time of the audit, but appeared as though they had been wet on 2/18 (11%) occasions, which, according to the nurses was an improvement on her usual situation.

DISCUSSION

Nurses considered both offered options acceptable and feasible, and that they would enable patients to attend to their personal hygiene safely (Objective 1). Capturing the nurses' perspectives highlighted that patients' hygiene preferences and practices were rarely discussed in detail. The full participation of eligible patients in Phase 2 reflected their eagerness to be involved, with their responses indicating that they were aware of the ideal being to keep their dressing dry and intact between dialysis sessions. They described detailed, personalised and quite inventive strategies for trying to meet that goal, thereby satisfying Study Objective 2. In Phase 3, the participants responded positively to being given a choice and being supported to attend to their hygiene safely, and according to their preferences (Study Objective 3).

Participants' preferences for showering is consistent with research with other hospitalised patients.[23] The patients welcomed this opportunity to shower afforded by the waterproof dressing cover. Nurses' positive ratings of the acceptability and feasibility of the waterproof dressing covers contributed to the 'opportunity' to shower, since they provide education and assistance to patients relating to self-care.[15] The possibility voiced by some nurses that patients might push the boundaries, however, was realised by a couple of patients who tested how long they could remain in the shower before the dressing's integrity was breached.

Facilitating personal hygiene choices strengthened the partnership between nurse and patient. By starting a conversation about hygiene care practices and preferences, patients shared the impact the CVC had on their lives and afforded the nurses greater insight into the challenges faced by the patients in their care. Greater attention to psychosocial needs and holistic care in a supportive and safe cultural environment can help achieve common goals and positive health outcomes.[24,25] The invitation to participate in own care decisions promoted autonomy, independence, and preserved quality of life.[24] The opportunity to have a choice of which product to use ensured patient-directed goal setting which allowed the outcome of care (dry and intact dressing) to become a goal that the patient was motivated and equipped to achieve.[26]

The results of this study resonated with the components of the COM-B system for understanding behaviour and behaviour change.[8,27,28] The opportunity to change was presented by the securing of two products that were previously not used in the Renal Service. Each product had features that appealed to individual participants. The option of safely showering reduced any dissonance between the advice previously provided to patients that having a bath was the best option, yet most patients were unable to comply with that option as they did not have a bathtub in their homes. Nurses should be able to provide appropriate education for patients to use either option safely in the future. After minimal instruction, most patients demonstrated their capability to use both products. Nurses can be reassured by the patients' responses that indicated their motivation to keep their CVC dressings dry and intact. Motivation to make a change in behaviour was evident by enthusiastic participation in this study, and continued desire to have access to the products of their choice.

There are aspects associated with using these options that the organisation needs to resolve. Both products generate additional rubbish for disposal, an environmental concern to all. Patients can purchase the bathing wipes online but will pay a little more than it costs the health service. Whilst patients may be prepared to pay a nominal cost for bath wipes for a short-term,[29] this additional ongoing cost will be a challenge to some of our patient cohort, many of whom are in a low socio-economic status bracket. It is even more difficult and costly for individuals to purchase the waterproof dressing cover. However, patients clearly preferred this option and embraced being able to shower without compromising their exit site dressing.

STRENGTHS AND LIMITATIONS

This study explored a topic about which little was known, personal hygiene preferences of patients with CVCs in a tropical climate, and the information provided by nurses about this sensitive topic. There was minimal burden for participants in the study, other than providing feedback about the use of the hygiene options. There is no intention to endorse either of the specific products used in this study; the bath wipes are used in other areas of the hospital, and the waterproof dressing cover is an Australian product. We cannot attest to the safety of other brands of bath wipe products on the fragile skin of patients undergoing haemodialysis for end-stage renal disease.[30] It is acknowledged that the observational nature of study design was not developed with infection as an outcome of interest. The observational study design also limits the generalisability of the findings to other settings. Since the study design allowed for participants to choose what products they used, and how often they used them, it was not possible to compare dressing intactness and wetness rates according to the two products provided. A final limitation is the lack of demographic data in Phases 1 and 2, limiting our ability to describe the sample more fully.

CONCLUSION

The heat and high humidity of the tropics will continue to pose challenges to maintaining the integrity of an occlusive dressing and preventing sepsis. From their involvement in this study, nurses can work with patients to resolve some of the potential barriers. However, the exploration of options to enable patients to keep their dressings dry and intact while they attended to their personal hygiene as they wished, promoted patient dignity and autonomy. It is possible for nurses to provide solutions for some of the potential barriers.

There was enthusiastic participation in the study, even by some patients who are traditionally somewhat reluctant to engage in conversations, reflective of incorporating the core values underlying research with Aboriginal and Torres Strait Islander Peoples.[22] For some patients, it has increased their willingness to take a more active role in their dressing care, and nurses are integral to supporting these opportunities and efforts. Funding for ongoing provision of the products needs to be considered by the Renal Service, to continue to provide the opportunity for behaviour change. Monitoring of the continued use of the options in a non-research environment will be required (for example, to guard against complacency on the part of patients and nurses).

IMPLICATIONS FOR RESEARCH, POLICY, AND PRACTICE

This study demonstrated that relatively low-cost options were effective in maintaining the integrity of exit site dressings. The cost of such options is far less than the cost of a bacteraemia to the individual and organisation. It was a simple solution to remove one of the many lifestyle modifications faced by people on haemodialysis via a central line.

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RESEARCH ARTICLES

Perspectives of Australian nursing educators on the preparation of nursing students for the care of older people's oral health

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ABSTRACT

Objective: To investigate the perspectives of Australian nursing educators on the preparation of Bachelor of Nursing students for the care of older people's oral health.

Background: The Australian population is ageing. Older people with poor oral health are at increased risk of worsening health and chronic disease conditions. Nurses can and need to take a leadership role in improving and maintaining older Australians' oral health in community, hospital, and residential care settings. Thus, it is important to investigate the perspectives of nursing educators on the preparation of nursing students for the care of older people's oral health.

Study design and methods: Semi-structured interviews were conducted with 13 participants, including course coordinators, lecturers, directors, and researchers at 10 universities delivering accredited Bachelor of Nursing programs across seven different states in Australia. Data were analysed thematically.

Results: Four themes were identified in nursing educators' perspectives: (1) the education of nursing students in providing oral healthcare is important, (2) there are notable gaps in nursing students' oral health education, (3) there are both internal and external barriers to strengthening oral health education across nursing programs, and (4) there is a need to develop and promote a shared oral health curriculum that includes interprofessional education and collaborative practice. Inherent in these themes was the need for a clear definition of the role of nurses in oral healthcare.

Discussion and Conclusion: It is recommended that administrators and policymakers develop nursing accreditation standards that specify the role of nurses in oral health education, and the scope of this education including interprofessional and collaborative practice, for the oral healthcare of older people. Infusing such standards in nursing curricula will better educate and prepare nursing students for effective practice and leadership in gerontological care.

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What is already known about the topic?

- Older people frequently have oral diseases that adversely affect chronic health conditions and increase the risk of poorer general health.
- Even though oral healthcare is an essential part of nursing for older people, the provision of such care is implied rather than stated specifically in Australian Nursing and Midwifery Accreditation Council (ANMAC) standards.

What this paper adds:

- The education and preparation of students to provide oral healthcare appears to be expected rather than required in Australian nursing curricula. Based on the perspectives of nursing educators, this paper suggests that many nursing students may not be well prepared to provide evidence-based oral care and lead oral health initiatives. The paper identifies ways these issues can be addressed.
- The paper discusses the importance of developing and promoting a clear oral health curriculum that includes interprofessional collaborative practice to strengthen nursing students' education and prepare them to provide effective oral healthcare for older people.
- The paper outlines a needed definition of the role of nurses in providing oral healthcare.

Keywords: aged care, oral health, nursing, older people, nursing curricula, dental care, interprofessional and collaborative practice

INTRODUCTION

The oral health of many older Australians (65 years and above) remains poor despite an increased understanding of the importance of oral health and its association with general health.[1, 2] Due to blood-borne pathogens from the mouth, oral diseases worsen heart problems, diabetes, and pneumonia, leading to unplanned hospitalisations.[3-5] Poor oral health also increases the severity of complications arising from viral infections, including COVID-19.[6,7] Predominant oral health issues for older people include tooth decay, gum diseases, dry mouth, tooth wear, and oral cancer.[8] Poor oral health leads to oral pain, difficulties in eating, speaking, and swallowing as well as lower self-esteem due to bad breath and poor facial and dental appearance.[9] Maintaining oral health – a mouth free of pain, discomfort and disease – is key to maintaining the quality of life and general health of older people.[10]

In providing oral healthcare, nurses need to understand the factors affecting people's oral health and oral health-related quality of life, ensure daily oral care practice, and be able to complete an oral health screening to identify issues needing timely referral to a dentist, doctor, or allied health specialist.[11] Oral healthcare for older people has been promoted by Australian government-funded learning resource packages such as "Better Oral Health in Residential Care" and "Better Oral Health in Home Care".[12] These resources were developed a decade ago to educate and assist nurses, nursing assistants, and allied health professionals to collaborate with dental professionals to ensure effective oral healthcare for the older population.[12] However, the uptake of these learning resource packages appears limited, and the report of the Royal Commission into Aged Care Quality and Safety highlighted the continuing neglect of older people's oral health, particularly in residential care.[13] Similar concerns have been raised about the oral healthcare of older people in hospitals in Australia.[14]

As people age, many become frail and require assistance with oral care. With nurses' important role in community, hospital, and rehabilitation and residential care settings, they are in an ideal position to ensure older people receive effective assistance to maintain their oral health.[15] Nurses can promote evidence-based oral healthcare for oral disease prevention, early intervention, and referrals to oral health professionals. The importance of nurses in providing oral healthcare has been acknowledged in international reports and studies.[15-18] Restrictions to dental services during the COVID -19 pandemic have highlighted the need for the leadership of nurses in oral healthcare, working closely with dentists, doctors, and allied health professionals to maintain older adults' oral and general health.[19] Nursing curricula need to specify the knowledge and clinical competence requirements for the effective provision of oral healthcare to ensure that all graduating students are well-prepared to provide such care.[11]

Despite the acknowledged association between poor oral health and general health, [13, 20-22] there is little known about the extent of the preparation of nursing students in Australia to provide oral healthcare for older people.[11] A review of the curricula of Australian Bachelor of Nursing programs, as presented on university websites, by the first author (VB) showed no information regarding the inclusion of units and clinical practice addressing the care of older people's oral health. Competence in oral healthcare may be implied in current Australian Nursing and Midwifery Accreditation Council (ANMAC) Standards (Standard 3.6 does require nursing programs to integrate principles of interprofessional learning and practice in content and learning outcomes) but there is no particular focus on oral healthcare learning objectives.[23] To address this apparent lack of focus on oral healthcare, this study aimed to assess the perceptions of nursing educators regarding the preparation of nursing students to understand and provide effective oral healthcare, particularly for older people.

METHODS

A qualitative approach using semi-structured one-to-one interviews was employed to answer the following research question:

> *What do Australian nursing educators think about the education of nursing students in providing oral healthcare to older people?*

A semi-structured interview guide with open-ended questions was chosen to enable participants to freely express their diverse views.[24] Semi-structured interviews are the most widely used for qualitative research.[25]

DEVELOPMENT OF THE INTERVIEW GUIDE

The interview guide (see supplementary file 1) was developed based on the literature on nurses' role and clinical preparation in providing oral healthcare to older people. The interview guide was drafted by the first author (VB), then revised by consensus with the other authors (HH, LC, LG), all experienced researchers in oral healthcare provided to older people. Four experts, three teaching staff in nursing and one field researcher with experience in older people's oral health, reviewed the preliminary interview guide to ensure that the semi-structured questions were without bias or ambiguity. The experts suggested changes in wording which were then incorporated into the interview guide. The final interview guide was pilot tested with two nurses who had graduated recently with a Bachelor of Nursing degree to ensure the interview questions were easy to understand.

RECRUITMENT OF PARTICIPANTS

Participants were recruited purposively from 36 Australian universities with accredited Bachelor of Nursing programs. The research invitation was sent to the heads of these 36 programs. Targeted participants included program directors, researchers, course coordinators, and lecturers in nursing units involving the care of older people or oral care. Sixteen universities granted permission to recruit participants. Staff at these 16 universities then advertised the study to potential participants by a bulk email or newsletter. Those interested in the study were invited to contact the first author via phone or email. A reminder email was sent to staff at participating universities by the first author four weeks later. The emails emphasised that participation in the study was voluntary, and the data provided would be anonymous.

DATA COLLECTION

The first author (VB) col lected the interview data from February to April 2021. An information sheet, interview guide, and consent form were emailed to participants before the interviews. Written consent was obtained from all participants. Interviews began with stating the purpose of the study and were recorded with permission. Interviews took place over the online zoom platform (n=12) or by phone (n=1). The interview time ranged between 25-45 minutes. Data collection continued until data saturation was attained, which means, further interviews could not provide new information about the target concept.[26,27]

DATA ANALYSIS

The recorded interviews were transcribed using Otter.ai (Otter.ai) and subsequent accuracy was ensured by member checking procedure. NVivo 12 (QSR International Pty Ltd) was used to store and organise the data. Interviews were analysed thematically according to Braun and Clarke's guidelines.[28] The thematic analysis method was chosen for its flexibility, as it is not tied to a particular theoretical perspective.[28] It also provided the opportunity to find new themes by looking for patterns in the data and connecting them into meaningful groups that capture the topic.

The first phase of analysis involved reading the transcripts and forming initial codes. This was followed by the organisation of codes into sub-categories and categories, resulting in the identification of key themes (supplementary file 2). Patterns in coding and emergent themes were finalised by consensus of the research team (VB, HH, LC, LG). Finally, themes were defined, and relevant data were reported. Consolidated criteria for reporting qualitative research were used to ensure quality.[29]

ETHICAL CONSIDERATIONS

Ethics approval for this study was received from the University of Tasmania Social Sciences Human Research Ethics Committee (ref no. H0020263).

RESULTS

Thirteen participants were recruited from 10 accredited nursing schools: nursing course coordinators (n= 5), lecturers (n= 5), directors involved in teaching or developing nursing units (n = 2) and one researcher involved in incorporating oral health education in nursing curricula. Most participants had been in their current positions for more than five years.

The following themes were identified from participants' semi-structured interviews: (1) the education of nursing students in providing oral healthcare is important, (2) there are notable gaps in nursing students' education in oral health, (3) there are both internal and external barriers to strengthening oral health education across nursing programs, and (4) there is a need to develop and promote a shared oral health curriculum that includes interprofessional education and collaborative practice. These themes are detailed below:

1. THE EDUCATION OF NURSING STUDENTS IN PROVIDING ORAL HEALTHCARE IS IMPORTANT

All participants recognised oral healthcare as an essential part of holistic nursing to maintain a person's overall health. They saw the nurses' role in oral healthcare as not limited to assisting in oral hygiene. They advocated nurses should have the ability to perform oral health assessments, provide oral health education, monitor fluid and diet intake, evaluate the impact of medications on oral health, and make appropriate referrals.

> *"I think it's essential. It's part of holistic care. It's part of the whole patient care we deliver."* Participant 3

TABLE 1: THEMES IDENTIFIED FROM THE INTERVIEWS OF AUSTRALIAN NURSING EDUCATORS ON THE PREPARATION OF NURSING STUDENTS FOR THE CARE OF OLDER PEOPLE'S ORAL HEALTH

Themes	Definition	Categories and Subcategories	Codes
The education of nursing students in providing oral healthcare is important	This theme defines the role nurses have in the oral healthcare of older people, and the need of their education in such care.	Nurses play an important role in the oral health care of older people Essential to educate and upskill nursing students in the oral health care of older people component	Part of holistic care, Perform oral health assessments, Provide oral health education, Monitor fluid and diet intake, Evaluate the impact of medications on oral health, Make appropriate referrals. Growing older population, Accessibility to dental services is an ongoing problem for older people, Ease early identification of oral diseases
There are notable gaps in nursing students' education in oral health	This theme identified the gaps in the nursing curriculum to educate students about oral healthcare	Mixed views of nursing educators regarding efficacy of oral health component in nursing curriculum Lack of evidence-based oral health education in the nursing curriculum	Oral health component was elective, No lab training about oral health care at university, Not all placements focus on oral care, No formal assessment on oral health component Association of oral and general health is not clearly taught, Limited focus on oral healthcare needs for older people with dementia and indigenous older adults
There are both internal and external barriers to strengthening oral health education across nursing programs	This theme describes the internal barries existing within the university, and external barriers that compounded internal issues to incorporate oral healthcare component in nursing curricula	Internal barriers: 1.A curriculum already at capacity without oral health and time constraints on staff 2.Knowledge of nursing educators 3. Difficulty in advocating for change and a lack of focus on older people External barriers: 1.Insufficient attention to support collaborative education and practice 2.Limited attention to nurses' role in oral healthcare at facilities providing care to older people, reflecting the low priority given to oral health	Many competing topics, Less time, Lack of in-depth knowledge of oral healthcare for older persons among educators, Not valuing oral healthcare component in nursing, Ageism, Resistance to change, Segregated oral health education and service provision No collaboration between dental and nursing professionals, Limited funding for dental experts in geriatric care, Dental care not included in Medicare, Lack of effective communication, Role of nurses in oral healthcare is not described.

TABLE 1: THEMES IDENTIFIED FROM THE INTERVIEWS OF AUSTRALIAN NURSING EDUCATORS ON THE PREPARATION OF NURSING STUDENTS FOR THE CARE OF OLDER PEOPLE'S ORAL HEALTH (CONTINUED)

Themes	Definition	Categories and Subcategories	Codes
The need to develop and promote a clear oral health curriculum that includes interprofessional collaborative practice	This theme identified multi-level strategies to incorporate oral healthcare of older people component in nursing curricula	1.Prioritise oral health of older people at national level 2. Including oral health education and clinical training in nursing accreditation standards 3.Involving nursing students in the development and implementation of oral health curriculum 4. Clearly defining nurses' role in oral health care 5. Interdisciplinary collaboration 6. Recognising and training oral heath champions at nursing schools	System-level Prioritising older people' oral-systemic health care at the national level Institutional level Creating opportunities for interdisciplinary communication, Advocating strong oral health care policies at healthcare institutions, Identification of current learning objectives where oral-systemic health component aligns well, Ongoing development and assessment of curriculum. Individual level Clearly defining nurse's role in oral health care, Dental professionals supporting oral health champions at nursing schools, Identifying opportunities for nursing students to understand oral health needs of older people, Organising oral health care of older people CPD programs for nursing professionals, Formal assessment of nursing graduates' competencies in the oral healthcare of older people

> *"I think education, simple screening [of oral health], and providing referrals are key roles for nurses."* Participant 9

> *"The important components are being able to assess, being able to perform an interview around those assessments ..., and looking at the whole person, I suppose, not just the mouth. So, starting to think about positioning, and diet and fluids planning, and products that assist with saliva for instance or dry tongue and about medications that might impact their oral health… It's not just cleaning someone's teeth and assisting them to clean teeth."* Participant 7

Participants perceived accessibility to dental services as an ongoing problem. They believed that nurses could play a leading role in preventive dentistry by promoting oral health in the community and facilitating early identification of oral diseases.

> *"We know that accessing dental services is always going to be an issue, not just in Australia but anywhere in the world. So, it's about nurses really doing that [oral health] screening, very early on, to identify when problems may not be that big … rather than waiting for the infection to spread and potentially the treatment is more expensive and more extensive."* Participant 9

Participants stated that it is essential to educate and upskill nursing students as future leaders to manage oral and general healthcare for the growing older population.

> *"I think it should be made mandatory in the undergrad, because if you look at the Bachelor of Nursing Science degree, once they have that degree, they become registered nurses who are like, they operate in a leadership capacity once they graduate, so if they are working in residential aged care facilities, they are the team leader, they will be leading a group of enrolled nurses, and a lot of carers provide that care."* Participant 2

> *"[The] older population is growing, and the economic strain will increase and saying that if we have qualified people [nurses] in their care, maybe you know, care won't cost as much."* Participant 5

2. THERE ARE NOTABLE GAPS IN NURSING STUDENTS' EDUCATION IN ORAL HEALTH

Most nursing educators mentioned that oral healthcare is included in nursing education; however, there were mixed views regarding the adequacy of the current content and the amount of time spent on oral healthcare education and clinical preparation in nursing programs. Many participants believed it did not receive as much attention as needed.

> *"I think it's [oral healthcare preparation] probably something that has not been done well for a long time, that hasn't had a lot of attention to it, and also for [nursing] education."* Participant 11

> *"It has never been an important part of nursing, it's always been ohh you clean someone's teeth when you are placing dentures, it's kind of like a night-time routine. It used to be taught alongside shaving, you know, wash your patients…"* Participant 7

Many educators could not recall learning about oral healthcare during their Bachelor of Nursing studies, and some believed that the situation had not changed.

> *"Less, I would say, and non-existent. I would say, because I don't recall anything with teeth, and that is quite unfortunate… and I can safely say that nothing has changed over the years."* Participant 2

One of the most common issues in the preparation of nursing students to provide effective oral healthcare was that learning about oral health was an elective; not all placements included a focus on oral care, and there was often no formal assessment of students' knowledge and clinical skills in the provision of oral care.

> *"It's an expectation that they [students] read around topics [oral health]. But whether they do or not, it's a challenge."* Participant 3

> *"We actually do have students who go to an oral health facility on placement, so they would have a lot, but other students would not necessarily have that … so from a placement point of view, very varied."* Participant 1

> *"We don't specifically assess oral health as a formal assessment."* Participant 13

Another gap identified by participants centred on the limited association of oral and general health problems, and their effective management.

> *"I also think that there has not always been a good link between how oral health impacts more general wellbeing… I think what we have not gotten that we probably need to revisit is the management of oral health."* Participant 11

Participants commented on the limited focus on oral care for older people with dementia and on the particular needs of Indigenous older adults in nursing curricula.

> *"There is kind of a lot of gaps currently in the curriculum that we can attend to. But you know the ageing population, they are our biggest, the biggest group of patients, they are in the biggest group of vulnerable populations. So, we have to start upskilling more nursing students to care for and to manage older persons, because we will have a deficit in our nursing workforce very very soon that will be so large that we won't be able to keep up."* Participant 13

> *"I don't think we attend to things around dementia as much as it should, and that is a really big area of course where oral health is critical."* Participant 6

> *"I would love consideration for Indigenous cultures and Indigenous communities around oral care, and how living remote and very remote impacts oral health. We don't have dentists in the remote…and [so would be good to know] what we can do as nurses in those situations."* Participant 4

Participants expressed concern about the lack of evidence-based clinical education pathways in nursing programs to strengthen students' competence in oral healthcare practice.

> *"And, you know, the thing is while we have got that Better Oral Health package that was developed over a decade ago, there has not seemed to be anything more that's developed to actually make things more concrete, more like a clinical pathway…And so it's very difficult then to design something that has not been tested and evaluated. So, there's definitely a gap."* Participant 5

Participants felt that often what students learned about oral healthcare in their nursing program was not reinforced when students were on placements. Hence, students were missing out on building their oral healthcare skills during their clinical trainings.

> *"No one's thinking that that's an important part and I heard anecdotal stories of patients being discharged after eight days without having their teeth cleaned at all, so it's just never been really promoted as an essential part of our daily nursing care. No nurse unit manager would ever check on nurses and say have they provided oral healthcare to their patients in a day."* Participant 7

3. THERE ARE BOTH INTERNAL AND EXTERNAL BARRIERS TO STRENGTHENING ORAL HEALTH EDUCATION ACROSS NURSING PROGRAMS

Participants identified several **internal barriers** which prevented nursing educators from effectively educating nursing students about the oral healthcare of older people.

3.1 A curriculum already at capacity without oral health and time constraints on staff

A frequently expressed concern of nursing educators was that many competing topics needed to be covered in the limited time of a three-year Bachelor of Nursing degree.

> *"Issue of the curriculum actually being very crowded becomes a real problem and I think curriculum wise, we probably should be going for a four-year degree."* Participant 6

> *"We have got a certain amount of content that we can fit in three years, so to improve, I mean I guess we can always improve but to include specific oral health for older people we have to drop something else, and that becomes problematic"* Participant 1

> *"A full curriculum, lack of time by educators to develop specific material."* Participant 10

3.2 Knowledge of nursing educators

Some participants felt they were not sufficiently prepared to educate students about older people's oral healthcare. Participants believed that if they did not have in-depth knowledge of oral healthcare for older persons, such healthcare would be less likely to be effectively incorporated into nursing courses.

> *"It would be the lack of awareness that needs to be considered because if academics never thought about oral health in-depth, they would never be upgrading nursing curricula regarding that … We can always include this component, it's not that hard, to be honest, it is about awareness at the end of the day."* Participant 2

> *"I think, first of all, we [nursing educators] need to have a better understanding of the importance of mouth care and oral care in general health and wellbeing. If we have a better understanding of it, then we are more likely to communicate that to our students and focus on it in their curriculum."* Participant 8

3.3 Difficulty in advocating for change and a lack of focus on older people

Nursing educators found it difficult to advocate for the inclusion of additional essential topics in the nursing curriculum, such as the oral healthcare of older people. They felt that the omission of oral healthcare may reflect ageism, not valuing older people and their healthcare needs, or a general resistance to change.

> *"Barriers are people's attitude; they have already made a judgement about the value of older people and where that sits. And say, I get dismissed quite quickly… If other people have different knowledge sets or different value sets about what's more important, then they are going to push their agenda … The higher up the chain, associate professors and professors so they have power you know, it's difficult. Yeah, it's not easy to advocate."* Participant 5

> *"There are people who like change so they could be very excited like people like me. And then there are people who don't like change. So, they would be quite resistive."* Participant 2

Participants identified several **external barriers** that compounded internal issues affecting the inclusion of oral healthcare in the nursing curriculum and suggested strategies for consideration.

3.4 Insufficient attention to support collaborative education and practice

Participants felt that there seemed to be little or no collaboration between nursing and dental professionals to facilitate collaborative education and practice for the effective management of oral health issues for older people.

> *"It appears to be that there's no opportunity for nurses to interact with a dentist, or an oral health professional on a medical ward or surgical ward or anywhere like that in other areas of rehabilitation, aged care."* Participant 6

> *"We have talked a lot about neglecting oral health especially in older people and investments in aged care residents, but there seems to be very less or no collaboration between nursing and dental school regarding how we can improve this."* Participant 2

> *"I think there really could be a lot more collaboration. I don't know that any of that is happening."* Participant 8

> *"I have always been surprised at this, why dentists and oral hygienists are not advocating and doing something for older people, because they have the specialist knowledge."* Participant 5

Participants expressed concern that the lack of collaboration could be linked to limited funding for dental experts in geriatric care and non-inclusion of dental services in Medicare.

> *"I think it [lack of advocacy by dental professionals] comes down to old fashioned money. So I think government needs to fund it, they need to fund the experts."* Participant 5

> *"I think that's one of the challenges we have in Australia is that because dental services, on the whole, are not Medicare provided"* Participant 1

Participants also felt that the lack of an effective means of communication between dental and nursing professionals created a barrier to collaborative oral healthcare for older people.

> *"We don't do true collaboration well, and it starts with having a conversation."* Participant 13

> *"In fact, the dentists here have stopped going to nursing homes … because they found that they would implement all these initiatives to improve the oral health of patients in nursing homes, but the nurses were not doing it, and it was not being supported by leadership, nurse unit managers, so the residents were in terrible states."* Participant 7

3.5 Limited attention to nurses' role in oral healthcare at facilities providing care to older people, reflecting the low priority given to oral health

Educators commented that nursing students felt that oral healthcare had a low priority at their work placements and that frequently students were guided by Nursing Assistants, rather than Registered Nurses, and the guidance was not always clear or evidence-based.

> *"They lack skill sets and how to respond to behaviours, especially like clients with dementia, or difficult patients say, so the Assistants in Nursing would choose the easiest road, which would be not to go there and clean their teeth because it's too*

> *difficult. And so then, unfortunately, the student nurses get to see this behaviour where everyone avoids the oral hygiene because that's the easiest road to take because everyone is pressured for time, which is not a good role modelling going on."* Participant 5

> *"The staff [assistant nurses] were not actually doing; they were ticking the care plan to say that they have done oral hygiene. But when the students actually went to find, like a toothbrush or toothpaste and other things, the actual residents did not have any of that at the time. But the staff was still ticking them off that they were doing that……so that was a challenge."* Participant 3

4. THE NEED TO DEVELOP AND PROMOTE A CLEAR ORAL HEALTH CURRICULUM THAT INCLUDES INTERPROFESSIONAL COLLABORATIVE PRACTICE

Participants identified valuable multi-level strategies to address this need. They suggested that if the government would ***prioritise oral health at the national level***, this priority would then transfer into nursing schools' curricula.

> *"I think what we need to happen is the systems that support the curriculum, so we say, in nursing, we are part of a broader system, the health system….Once it hits the national priority, it gets everyone's attention… I certainly feel that you know, if we had a more cohesive response that comes from the governance level, from the government or national priorities, then that feeds down, and then it goes into the care of older people out in the community hospitals and residential setting, then feeds into the curriculum, then back up again, is that reciprocal relationship that needs to happen for it to be done"* Participant 5

This national priority would, in turn, facilitate ***the inclusion of specific learning objectives regarding oral health education and clinical preparation in nursing education accreditation standards***

> *"If you have a look at the Australian Nursing Midwifery Accreditation Council (ANMAC), they are who accredit every nursing program in Australia. And when you look at the current standards, there are five standards that they were accredited against, and there's not one mention of oral health, specifically, when you look at it's implied, because one of our guiding principles should be safety to the public. I mean that underneath that, there's a lot of opportunities to actually, you know, highlight that it is to make sure to maintain someone is safely coming in and out of healthcare."* Participant 13

> *"Actually, have that as a requirement at the Australian Health Practitioner Regulation Agency level and Australian Nursing and Midwifery Accreditation Council so that it has to be a stronger focus and you know people are not going to just do things until it is enforced."* Participant 6

> *"It comes back to your ANMAC accreditation. And perhaps it needs to be more explicitly stationed."* Participant 10

Participants recognised the importance of ***involving nursing students in the development of ways to measure knowledge and competence in oral healthcare as the curriculum is implemented.***

> *"I think it needs to be an ongoing process; you start small…see what they [students] felt was interesting, then you could always expand a bit... I do not think you could go in with the whole thing because you will probably fail."* Participant 9

Participants felt that more explicit language would ***clearly define the nurse's role in oral healthcare and facilitate needed interprofessional education and collaborative practice.***

> *"You want to ensure that there is a clear line between what the nurse's role is and what the dentist's role is."* Participant 9

> *"I think the strategy would be initiate conversation, because we are very disjointed."* Participant 2

> *"I would love to see that more and get more genuine effort and engagement from the dental service or collaborations in the future."* Participant 4

One university used an ***interdisciplinary approach*** to teach nursing students, where nursing students learnt oral healthcare components from final year dental students. Dental students helped to highlight the importance of oral healthcare for older people. This approach was found to be effective by the facilitator.

> *"…fifth-year dental students, so almost finished, they all come down and teach our students how to provide oral health assessment and oral care cleaning, cleaning of dentures, care of dentures, how to clean someone's teeth using a wide range of products, and how to do a thorough oral health assessment on their patients, and they are very good."* Participant 7

> *"I think dental students give it [oral health education] an element to our speciality. So, … they are totally committed like it's an obsession with them, looking after teeth and looking after oral mucosa and all the other diseases that are happening now and the comorbidities [that] can result are really high on their agenda so our students recognise that this is really important."* Participant 7

Within collaborative education and practice, ***opportunities could be created for students to interact with older community members***, so nursing and other students can better understand the oral healthcare needs of older people.

> *"I think maybe sending or bringing some older members of our community into our skill sites. Yeah, having the older people talk about them [oral health issues]."* Participant 10

> *"I think what's really effective is finding out the experience from consumers. So those who are actually receiving healthcare, they are able to tell you their experience and the effects impacted on them by not having proper oral care. I think nurses are quiet, you know we're naturally empathetic, we respond to*

> *people's stories, and we always want to help. So, if we know the importance of it, and to hear stories from patients that have been in our healthcare facility that this is the consequence. I think that is motivation."* Participant 8

Participants believed that students in regional or remote areas learned more about the importance of oral healthcare of older people at the workplace than those in metropolitan areas due to the rural sense of community.

> *"I work with a very innovative group of nurses...We have all worked in this region [regional and rural area] where you kind of have to be multifaceted you have to think outside the box, you have to provide care with what you have got."* Participant 4

> *"There seems to be more of a sense of community; there seems to be more engagement with families than what there might be in a metropolitan setting…… I don't know whether that level of familiarity makes people more aware of some of those issues around oral health."* Participant 11

To develop the standardised oral health content and integrate into accreditation standards and nursing programs, participants ***recognised the valuable role of oral health champions at nursing schools, placements, and for continuing education workshops for staff.***

> *"I think that getting that champion in the nursing school, to lead is crucial, in terms of when I think it depends on each university because each university, the way they teach nursing varies"* Participant 9

> *"I would like to see better support for nurse educators in the hospital environment and healthcare environment around oral health." Participant 6*

> *"I think some other workshops or online learning would be beneficial."* Participant 12

DISCUSSION

The need for and importance of oral healthcare in nursing is recognised in the literature.[2,9,15,16,30] The perspectives of nurse educators in this study focused on the importance of education about oral health, recognition of the notable gaps that currently exist in nursing students' preparation for providing oral healthcare, awareness of the internal and external barriers that affect such education and clinical preparation, and the need to develop and promote a clear and standardised oral health curriculum. The perspectives of lecturers, researchers, and course coordinators in this study were consistent with those in a 2020 study evaluating the experience of heads of nursing schools regarding the inclusion of oral health in Malaysian and Australian nursing programs.31 In addition, several other studies in OECD countries reflected that the clinical experiences and assessment of oral health for nursing students lacked consistency across programs.[32-34]

A key factor that underlies these perspectives is the need to define the role of nurses in providing and maintaining the oral health of older adults. Nurses occupy a key position in understanding a person's general health and how this can be maintained or adversely affected by oral health. Key components in ensuring oral health include nurses' ability to (i) accurately and regularly screen to detect signs and symptoms of oral diseases, (ii) evaluate the impact of prescribed medications, (iii) monitor fluid and nutrition intake, (iv) recognise the need for timely referral to a dentist, doctor, or allied health specialist, (v) educate and counsel older people and their caregivers about the importance of maintaining oral health, (vi) ensure daily evidence-based oral care when needed, and (vii) take a leading role in ongoing interprofessional education about effective oral care for older people.

Agreement on the key components of the role of nurses in providing oral care and maintaining the oral health of older people will guide the development of standardised curriculum content to strengthen nursing students' competency and confidence in providing oral healthcare. Such a curriculum will address the notable gaps that currently exist in undergraduate nursing programs, such as knowledge of oral anatomy and physiology and strengthen the clinical skills of graduate nurses in providing oral healthcare to older people. Recently, extending the current three-year accredited nursing program to four years has been put forward to better prepare nurses, but the need for involving oral healthcare components was still not raised.[35]

The perspectives of nurse educators in the current study suggest that it would be valuable for administrators and policymakers who determine nursing accreditation standards to develop standards that specify oral health education, including interprofessional and collaborative practice, for the oral healthcare of older people.[36] These standards would also help to overcome the current siloed approach to oral and general health at a national level. Such standards would be a positive influence in integrating oral and general health through collaborative work with the Australian Nursing and Midwifery Federation, the Royal Australian College of General Practitioners, and the Australian Dental Association (ADA) at national, policy levels. This would facilitate interprofessional collaboration with dentists, medical, and other allied health professionals and optimise care for older people.[37, 38]

The importance of interprofessional education and collaborative practice is evident in Standard 3.6 of the ANMAC standards. This standard will assist in curricular re-design and address the difficulty of scheduling students and staff from different programs so they can work and learn together. Strengthening this standard with examples of effective collaborations of primary healthcare providers with dental professionals in both urban and rural areas will facilitate partnerships for teaching and clinical practice.[39-41]

Examples can include telehealth and online learning, which are particularly valuable to connect nursing, dental, and allied health students, and professionals in rural areas.[42-44]

One effective strategy for interprofessional learning about oral health is to ensure nursing students are familiar with the Head, Eyes, Ears, Nose, Oral cavity, and Throat (HEENOT) approach for assessing, diagnosing, and treating issues that can adversely affect general health.[45] The HEENOT approach ensures that one does "NOT" leave out oral healthcare at any time when delivering person-centred care.[45] Aligned with the HEENOT approach, nursing students and their interprofessional colleagues can advocate for the inclusion of a person's dental records with their e-health records to emphasise the association of oral health with general health and promote the importance of holistic, person-centred care for primary health providers and other allied health professionals.

The Royal Commission identified the need for older people, especially those in residential aged care, to receive effective oral healthcare.[13] Dental professionals can be strong advocates for the role of nurses in providing such care and for appropriate funding for clinical service delivery and professional development programs. Despite the recommendations of the Royal Commission, and the specification of continuing professional development for staff in the new aged care standards, specific funding details were missing in the FY21-22 budget delivered by the Australian government.[46]

The mixed views of nursing educators in this study suggested that some universities in Australia are doing better than others in terms of including oral healthcare in the nursing curriculum. In addition, it appeared only a few academics were aware of published oral health resources, available online, such as "Better Oral Health in Residential Aged Care",[12] "Building Better Oral Health Communities",[12] and "Smile for Life-National Oral Health Curriculum," [47] which promote an interprofessional approach in the education of nursing students. A standardised curriculum with a clear definition of the role of nurses in providing oral healthcare to older people would address these inconsistencies. In the meantime, effective communication, and collaboration between nurse educators at local, state and national meetings will help them learn from each other's experiences, facilitate the integration of oral health components into nursing programs, and promote higher standards of oral care to improve the oral health and quality of life of older Australians.

LIMITATIONS

There may be an element of bias in the study. Participants may have had a different level of interest in educating students about the oral healthcare of older people compared to nursing educators from other universities who chose not to participate.

FUTURE RESEARCH

It would be valuable for future research to explore nursing students' perspectives on their education and clinical preparation to provide oral healthcare to older people. Nursing students' perspectives would complete the picture and facilitate further investigation of ways in which effective oral healthcare for older people can be incorporated into nursing education and clinical practice.

CONCLUSION

As Australia strives to improve the oral health of older people, enhancing oral healthcare delivery through skilled and determined health professionals is essential. Nursing educators recognise the need for the education and clinical preparation of nursing students to promote older people's oral health, especially when older people are dependent on others for their oral care. Policymakers should focus on developing and ensuring the implementation of oral healthcare standards in the healthcare and aged care settings. Recognition of importance of oral healthcare of older people at national level will promote the incorporation of this component in the nursing curricula. Nursing educators then highlighted there is a need to define the role of nurses in oral healthcare to address the structural and systemic issues existing at the policy and practice level reflected in the siloed delivery approach to oral healthcare to older people. This study suggests that key components for nurses to effectively provide oral healthcare to older people include the ability to (i) accurately and regularly screen to detect signs and symptoms of oral diseases, (ii) evaluate the impact of prescribed medications, (iii) monitor fluid and nutrition intake, (iv) recognise the need for timely referral to a dentist, doctor, or allied health specialist, (v) educate and counsel older people and their caregivers about the importance of maintaining oral health, (vi) ensure daily evidence-based oral care when care is needed, and (vii) take a leading role in ongoing interprofessional education about effective oral care for older people. This definition will guide the development of a standardised oral health curriculum in nursing accreditation standards, including interprofessional education and collaborative practice.

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RESEARCH ARTICLES

Distressed, detached, devalued and determined: aged care workers' experiences of the COVID-19 pandemic

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ABSTRACT

Background: The COVID-19 pandemic has had widespread impacts on the community and has demanded a rapid response from the aged care sector. System changes for infection control have been required including the use of personal protective equipment, lockdowns, visitor restrictions and changes to activities within aged care facilities. Even prior to COVID-19, the high physical and emotional demands of aged care work were recognised.

Objective: This study sought to understand aged care workers' experiences of the COVID-19 pandemic.

Methods: Using a pragmatic paradigm qualitative data about work experiences during COVID-19 was collected from people employed in different aged care organisations in a range of aged care roles and settings from multiple Australian states. Data was collected using focus groups and interviews conducted online between August-October 2020. Inductive thematic analysis was used to identify key themes in the data.

Results: Participants included 15 people working across a range of aged care roles including clinical, care and management staff and across both residential and community settings. Five themes were identified which characterised aged care workers thoughts about their jobs during the pandemic. These included intensified procedures and emotional demands, feeling undervalued and detached from the frontline, exposure of existing system deficiencies, recognising teamwork and increased confidence in technology.

Conclusion: Reflecting on aged care workers' experiences of COVID-19 highlights the need to better support workers and acknowledge their important role in caring for older Australians. This includes at an organisational level by providing supportive environments and access to online resources as well as at the community and policy level by recognising aged care workers as frontline workers. The COVID-19 pandemic has also highlighted existing systemic issues in the aged care sector that need to be addressed for the provision of quality aged care in Australia during the COVID-19 pandemic and into the future.

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What is already known about the topic?

- While the COVID-19 pandemic is affecting the global community, it is disproportionately impacting the aged care sector with higher rates of severe illness and death and wide-ranging system changes to prevent and control the spread of the virus.
- Prior to COVID-19, aged care work was associated with high job demands and lack of access to resources to support aged care workers in their role.
- Survey data on the Australian RACF workforce found workers felt prepared for the pandemic with a wide range of measures to control the spread of COVID-19 but they faced several challenges associated with their additional roles and restrictions.

What this paper adds

- This paper provides qualitative and descriptive insights into the challenges experienced by the Australian aged care workforce during COVID-19 including increased workloads and intensified emotional demands of their roles while at the same time feeling undervalued by the wider community.
- This study has highlighted the need to better support and acknowledge aged care workers in the community through their portrayal in the media and within their organisations by facilitating supportive team environments and providing access to online resources and training.
- This paper discusses existing systemic issues that have been highlighted by COVID-19 and the Royal Commission into Aged Care Quality and Safety and need to be addressed for the wellbeing of workers and the provision of quality aged care.

Keywords: Aged care workers, aged care, COVID-19, wellbeing, job demands

BACKGROUND

Impacts of the COVID-19 pandemic and restrictions to contain the virus have been felt throughout the community. The aged care sector has been disproportionately impacted, with the risk of severe disease for many people accessing aged care services meaning aged care has had higher rates of cases, more severe illness and more deaths.1 System changes to prevent and control the spread of COVID-19 have also impacted aged care workers. For example, at times over the course of the COVID-19 pandemic in Australia, visitors to residential aged care facilities (RACFs) have been prohibited or limited in number with visits restricted in time and location.[2] For much of the pandemic, external excursions from RACFs have also been prohibited. Older adults living at home, have been affected by the same social distancing, gathering restrictions and lockdowns implemented across the broader community. These system changes, including periods of visitor restrictions and social isolation, have meant the role of aged care workers in the lives of the older adults they support has become even more important during COVID-19.[3] Support from volunteers and family members has been restricted and older adults have had reduced access to additional services and supports considered non-essential with aged care workers often undertaking additional tasks and roles to address these gaps. There has also been additional workload for aged care workers in facilitating alternative means of contact and visiting arrangements such as supporting older adults to participate in video calls.

The Job Demands Resources model (JD-R)[4] provides a lens for understanding the experiences of aged care workers. Aged care work is associated with high workloads and emotional demands.[5] Some of the specific demands experienced by workers include being alert to changes in the care recipients and their environment, undertaking a diverse range of tasks, communicating with clients and their family members, dealing with strong emotions such as grief and loss, navigating professional boundaries in their care relationships and isolation for those working alone in community-based care.[6] Some of the resources workers can draw on to cope with these demands include congruence between personal and work goals, commitment to the work and their organisation, relationships at work,[6] and perceived organisational support for example to attend training.[6,7] However, some job resources are lacking and despite the high demands of their work, those working in aged care experience a lack of social and professional recognition and receive lower pay compared with people working in other areas of the health system.[5] This imbalance of job demands, and resources means that burnout, moral distress and compassion fatigue are common experiences in this sector.[5] The COVID-19 pandemic and associated changes and restrictions are likely to have placed increased demands on aged care workers without them necessarily having increased job resources, further exacerbating this imbalance.

OBJECTIVE

This paper examines aged care workers' experiences of the COVID-19 pandemic in Australia.

METHODS

This paper reports incidental findings that arose while undertaking a larger study. As part of the larger program of research, a pragmatic qualitative study design was used in 2020 to seek aged care workers' input during the development of a capacity and resilience building intervention. A pragmatic paradigm was chosen because of the need to ensure the research was based on participant experiences with a clear focus on being practically relevant and producing actionable knowledge to be used in further development of the intervention.[8] The findings of the larger study are yet to be reported. As the COVID-19 pandemic was a key issue impacting the community and the aged care sector at the time of data collection, despite no specific questions being asked about COVID-19, participants discussed their experiences of the pandemic and it is these incidental findings that are reported in this paper.

PARTICIPANTS

This study utilised convenience sampling, with people working across the range of aged care roles and settings invited to participate. Study information was distributed by email and newsletter articles through an Australian University's networks with potential participants invited to contact the research team for an information sheet and consent form. A total of 97 people contacted the research team and of those 37 returned a signed consent form. While the larger study involved 32 participants, 15 spontaneously discussed their experiences of COVID-19.

DATA COLLECTION

Participants were invited to attend one of three online focus groups. Participants unable to attend the scheduled focus groups (n=9) were offered an individual online interview. A semi-structured interview guide was used to focus discussions on seeking input for the development of the intervention. The interview guide included questions and prompts related to aged care workers' capacity and resilience as well as the support needed for these workers, but no specific questions or prompts related to COVID-19. Discussions (facilitated by first author) were held between August-October 2020 and ranged between 25-71 minutes in duration.

DATA ANALYSIS

Interviews and focus groups were recorded and transcribed verbatim. Data relating to experiences of COVID-19 was treated as supplementary data, categorised separately in the larger dataset and then analysed in NVivo using inductive thematic analysis to identify key themes. Within NVivo, attribute values were added to cases based on participant role and setting. In the initial stage of coding, the larger dataset was categorised under themes related to the various aspects of feedback on the intervention with an additional theme created for the data relating to the impact of COVID-19. This data was then separated from the larger dataset and codes were drawn inductively from the data. Coding was initially undertaken by one of the researchers. All text was coded into thematic categories until a process of data saturation occurred whereby no new information was identified that was substantially different from the themes created, consistent with accepted approaches.[9] The number of focus groups and interviews conducted was appropriate for reaching code saturation.[10] The themes, relevant quotes and interpretations of the data were then reviewed, discussed and refined by the whole research team until agreement was reached. Once key themes were agreed a coding query was run in NVivo to explore any differences in perspectives and experiences across participant groups.

The quality and validity of the themes reported from this study have been enhanced by data source triangulation with data collected from participants in a range of aged care roles and settings, providing multiple perspectives on their experiences.[11] Where relevant, differences in perspectives and experiences of these participant groups have been noted in the findings. Data was collected in various formats (individual interviews and focus groups) allowing for method triangulation.[11] Investigator triangulation was also used with all three members of the research team,[11] each with a different background and perspective, participating in regular meetings during data collection and involved in discussing and refining the final themes and interpretation of the data.

ETHICS

Ethical approval was obtained from the University of Tasmania Human Research Ethics Committee (H0015478).

RESULTS

A total of 15 people from five Australian states discussed their experiences of COVID-19. Most (n=12) worked in an RACF with the remaining working in community care or day centre services. Participants worked in management (n=3), nursing (n=4), allied health (n=3) and care or activity (n=5) roles.

Analysis of the data revealed that aged care workers have experienced challenges during COVID-19 including intensified procedures and emotionally demanding roles while feeling undervalued. They also see opportunities emerging for the sector because of the exposure of system deficiencies, recognition of the importance of teamwork and increased confidence using technology.

INTENSIFIED PROCEDURES AND EMOTIONALLY DEMANDING ROLES

Intensified procedures and the heightened emotional demands of their roles was the experience emphasised and highlighted most by participants. Participants working in community-based aged care settings focused almost exclusively on this experience.

Participants shared the strategies that had been implemented in their workplaces to prevent the spread of COVID-19. These were often procedural changes, such as wearing personal protective equipment (PPE), not using agency staff, not accepting visitors, modifying activity programs, staying home when sick and minimising resident/client exposure to outside medical care. Workers were prepared to do what was required to protect care recipients even if it meant increased workloads.

> *We were asked a couple of weeks ago "Did we or didn't we want agency staff in at the moment?" You know, basically on the understanding that if we said "No, we didn't want agency staff," then we'd run the risk of obviously running short on some shifts… We're prepared to work short.* (Participant 10; care worker, RACF)

Aged care workers have experienced intensified emotional demands of the job during COVID-19 linked to increased workloads and concern for the distress being felt by those they support. This distress being experienced by those around them was of greater concern to the workers than actual or potential COVID-19 cases in their workplaces. Workers reported challenges helping people with dementia understand COVID-related restrictions and supporting care recipients and their family members to cope with their increased stress, isolation and concerns about the spread of COVID-19.

> *We have the residents themselves becoming more lonely and feeling more isolated and more disorientated because their people can't come. And we can't have any entertainment. And we can't take them out.* (Participant 84; allied health, RACF)

> *At the moment things are incredibly stressful in aged care, for the residents as well and for the staff… you can feel it. It's around you all the time, the tension… One particular family phones our facility and says - because there's no visits anymore. "I think you're hiding something. I think my father is dead and you're hiding it and you're not telling me." Because that happened once apparently. So everybody is very, very stressed. Very stressed.* (Participant 15; allied health, RACF)

They reported either themselves or other workers were *'emotionally affected', 'stressed', 'overwhelmed', 'worried', 'depressed', 'grieving'* and at a team level there was reduced *'staff morale'*. For some, their grieving processes associated with the death of clients were interrupted by restrictions, meaning their loss was *'paused or on hold'*. Work relationships that were usually positive were being tested and some workers reported others *'get on your nerves'* and having *'a bit of a rant at'* their co-workers. While comments suggested the job was emotionally demanding they also alluded to another layer of personal stress *'from their own homes'*. COVID-19 raised many challenges for the broader community including isolation from support networks, home-schooling, uncertainty, and concerns about health. Aged care workers also experienced these challenges in addition to those experienced through their work.

The emotional experiences have been even more heightened for those in workplaces that have been impacted by COVID-19 cases and deaths. In some situations, the responses of workers, including those in management roles, were suggestive of a mental health condition, in the intensity and duration of reported symptoms.

> *Because of this Covid pandemic… I could see a lot of staff grieving – our company had some nursing homes that were impacted and some of the managers, they are not yet back. Three months, they are still not fit to come back to work. Emotionally they are affected because one of our homes, they lost [number removed to protect anonymity] residents at once [from COVID-19]. So, it's really affecting the staff. So, they grieve as well.…. I had one nurse who rang sick saying she is depressed because we lost a lot of residents, so they grieve as well.* (Participant 45; manager, RACF)

FEELING UNDERVALUED AND DETACHED FROM THE FRONTLINE

Aged care workers reported many ways they have felt their caring efforts were not valued. This experience was largely discussed by participants working in RACFs but not by those working in community or day centre settings. They felt that they were under scrutiny because of the Royal Commission into Aged Care Quality and Safety and COVID-19.

> *A lot of people are feeling overwhelmed and undervalued and feel like they're being looked at under a microscope.* (Participant 95; nurse, RACF)

They largely attributed the negative image of aged care and aged care workers to their portrayal in the media and by community leaders. Participants felt *'horrified'* by news stories on care failures and hid from others that they worked in aged care. They felt they were *'all being tarred with the one brush'* and that *'aged care is a poisoned chalice'*. While participants felt that frontline staff and healthcare workers have been valued during COVID-19, this has not extended to the aged care workforce.

> *It's [aged care] a damned space where no-one receives accolades. Frontline healthcare staff are never inclusive of aged care staff. And the hundreds of people who are working in these spaces so hard and working longer shifts because we can't have people coming between facilities and their hearts are really in it…So to see us, you know, hitting the [newspaper] page constantly only for the failures doesn't really help.* (Participant 84; allied health, RACF)

These negative perceptions of aged care may adversely impact recruitment and retention of workers with participants reporting that they *'felt quite intimidated about coming back to work'*.

EXPOSING SYSTEM DEFICIENCIES

Some participants felt that the recent attention on aged care has simply exposed existing system deficiencies. They expressed some optimism that this may lead to improvements such as new standards, more funding and better training and pay for staff.

> *And who knows - all the horrible stuff that's going on with COVID and aged care residential facilities and the aged care workforce and all that sort of stuff - I know it will never be fixed quickly, but at least it's bringing it to the fore that these people [staff] are woefully under-trained, underpaid, overworked.* (Participant 79; manager, day centre)

RECOGNISING THE IMPORTANCE OF TEAMWORK

Changes to normal working arrangements during COVID-19 have helped some participants to realise the importance of teamwork for job satisfaction and wellbeing at work. In some organisations staff felt less supported because of an inability to meet in person and no alternative arrangements. In others, consciously allocating time to connect was beneficial with plans for some of these practices to continue beyond the pandemic.

> *The teams have benefitted so much from a weekly team meeting [during COVID-19] instead of a monthly one.* (Participant 79; manager, day centre)

INCREASED CONFIDENCE USING TECHNOLOGY AND ONLINE RESOURCES

During COVID-19 aged care workers have increasingly used technology and online resources both within and outside of their work. For example, telehealth appointments, video calls with family and colleagues, online training and supporting care recipients to utilise video calls. This experience has given them increased confidence in the online environment. The increased confidence was especially raised by participants working in activity related roles. It is these staff who were often responsible for supporting residents to remain connected to their support people using technology during visitor restrictions.

> *Probably in a really ironic way, Coronavirus might actually help with it [training] in an online environment, because people are getting used to it. A year ago, six months ago, everyone would have been, oh [no], but now…* (Participant 20; care worker, RACF)

DISCUSSION

The findings of this study show that throughout COVID-19, aged care workers in Australia have experienced increased workloads, emotional demands, and concern for the wellbeing of those they support. Increased workloads for participants in this and other studies were associated with infection control measures, increased processes for monitoring and documentation, screening procedures for staff and visitors, supporting residents in the absence of typical family and volunteer supports and additional communication with families.[12] Participants in this study discussed the challenges of dealing with clients' families who were also experiencing increased emotions. Almost half of aged care workers have reported being treated unfairly or abusively by family members in response to visitor restrictions.[12] Prior to COVID-19 Australian aged care workers reported work-related demands that focused primarily on the tasks involved in their roles such as time pressure, physical demands, administrative requirements, insufficient staff mix and training to deal with complex conditions and work scheduling.[13] Clearly COVID-19 has intensified these task-related demands and added additional emotional demands including complicated grief and loss.

When surveyed about the impact of COVID-19 on their mental health and wellbeing, almost two thirds of people working in RACFs reported work-related stress including burnout, anxiety, insomnia, depression and grief and one third expressed concern about the ongoing impacts on their mental health.[12] Similarly, Australian nurses working across a range of sectors reported that they felt anxious, overwhelmed and vulnerable during COVID-19.[14] This compares to pre-COVID-19 when studies among female aged care workers in Denmark and homecare workers in USA found that 8% and 7% respectively reported depressive symptoms.[15,16] Using the JD-R model to understand this experience suggests that there may not have been an adequate increase in resources for aged care workers to cope with the increased demands they faced during COVID-19.

Despite the increased work demands, participants in this study felt the infection control measures they have implemented throughout the pandemic are effective. This was also found in a survey of the Australian RACF workforce with most respondents reporting their RACF was well prepared for an outbreak and few reporting they were concerned about contracting COVID-19 at work.[12] In other countries aged care workers reportedly fear developing and transmitting COVID-19 and feel unprotected from the virus in their workplaces.[17,18] The different experience of aged care workers in Australia is perhaps a reflection of our aggressive public health response, rapid introduction of lockdowns and lower rates of COVID-19 cases in the wider community.

COVID-19 has put a spotlight on aged care as the disproportionate impact of COVID-19 in aged care settings has been a focus of the media throughout the pandemic.[19] Data collection for this study coincided with the Victorian outbreak and second lockdown during which many RACFs in the state were impacted by COVID-19 cases and all were impacted by strict control measures.[1] In Australia, COVID-19 coincided with the Royal Commission into Aged Care Quality and Safety which also highlighted deficiencies in the care and support of older Australians.[20,21] The Royal Commission was announced in 2018 to assess the presence of substandard care in the Australian aged care system in response to negative media representation and widespread community views that services were not meeting quality and safety expectations.[22-24] The extent of substandard care found was highlighted by the Commission releasing their Interim Report titled 'Neglect'.[20] Negative representation of the sector in the media both informed and reflected community's views contributing to mistrust and perceptions that RACFs are a dangerous place to live.[19] Even prior to this time of crisis that has exposed shortcomings of the aged care system, the media has promoted negative and unbalanced images of aged care, reporting failings and errors without reporting stories related to quality care.[25]

Aged care workers have felt scrutinised, undervalued and as though the community sees them as the cause or at least part of the broken system. Aged care workers around the world have similarly not felt valued for their contributions to controlling the spread of COVID-19 and caring for those who are particularly vulnerable.[12,17,26,27] This contrasts sharply with the appreciation shown to hospital-based healthcare workers through public campaigns such as 'Clap for the NHS' in the UK.[17,26,27] The marginalised status of the aged care workforce is compounded by reports of lack of access to adequate PPE, infection control training and paid sick leave.[28] More recently in Australia, there appears to be poor attention paid to vaccine rollout for workers in this sector suggesting they are still not seen as frontline workers. This exclusion and poor status of the aged care workforce is not new with RNs in aged care reporting that they feel invisible at best and unfairly judged at worst with much of the nature and reality of their work not understood even by RNs working in other fields[25]. This devaluing of the aged care workforce has been highlighted and exacerbated by COVID-19.[26]

During COVID-19 aged care workers have felt tension between their experience of increased workloads and emotional demands while at the same time receiving little support and recognition. While recent media and community attention has recognised the risk of COVID-19 in aged care settings and supports improved vaccine rollout to address that risk, aged care workers are still not necessarily valued or acknowledged for their commitment. Discussion has focused on why aged care staff are still *allowed* to work across multiple sites and the COVID-19 vaccine being made *mandatory* for all aged care workers. These discussions place blame on staff for COVID-19 cases in aged care settings and do not reflect the sentiments of staff involved in this study who were willing to change their usual work practices at their own expense, putting others' needs before their own, to protect those they support and care for. In addition to this they have actively worked to minimise the impact of COVID-19 related restrictions, taking on the care and emotional support roles usually filled by families and volunteers.[3] For some, COVID-19 has actually highlighted the importance of their work and strengthened their commitment to it.[18]

Attention should be directed to providing better support to aged care workers in their roles at this time. For example, providing clear information about and easier access to the vaccine and supporting them to work at one site with adequate hours, reducing their need to hold multiple jobs.[29] In addition, some of the required supports identified by nurses across multiple sectors early in the pandemic include education and information about COVID-19, access to mental health counselling, additional staff and a supplemental pay rise.[14] These additional supports or resources for aged care workers to cope with the increased demands in their roles caused by COVID-19 would attempt to address the imbalance and widening gap between demands and resources that may lead to increased burnout, moral distress and compassion fatigue among workers. Highlighting the value of these resources from this and other studies throughout the pandemic has broadened our understanding of the JD-R model in care contexts to include internal resources and external resource both within and beyond the workplace.

Stigma of working in aged care is associated with the adverse psychological consequences of distress, diminished self-esteem, and sense of professionalism.[30] Feelings of being the lowest priority in public health efforts to protect and care for the community that were identified in the current study seem to align with the sentiments of stigma and discrimination. The findings reported here further add to the qualitative research on the JD-R model with a new focus on the current pandemic environment.[6,13] Nuanced examples have been provided that describe the complexity of emotional demands of grief and loss associated with psychological adjustment of caring for people with COVID as well as their estranged family members (unable to visit due to restrictions) and during their end of life. These were shown to be overwhelming with serious health implications such as lengthy work absences. In this way, the JD-R model has been expanded to include external stresses of grief and loss, and non-tangible psychological resources.

Larger social attitudes in Australia towards ageing, older adults and aged care are part of the social context of the experiences of aged care workers throughout the COVID-19 pandemic. Ageism in the wider community is behind the pervasive 'burden narrative' that assumes all older people are frail and dependent and therefore burdening both their families and society economically and socially.[31] This burden narrative negatively impacts on perceptions of the status, value and role of the aged care system which cares for and supports those who are most frail and vulnerable in our community.[3] The care of older people in a system that is segregated from the wider community, out of sight and provided with limited resources reinforces society views of the low value of living later life with impairments or frailty.[31] Widespread acceptance of segregated residential aged care is in contrast to the broad rejection of institutionalised care for younger people with disabilities.[31] In addition to this, the funding structure for aged care is rigid and does not support reablement and rehabilitation of care recipients.[31] At the same time the negative views towards ageing among many health professionals exclude older adults from decisions about their own healthcare, underestimate their capacities and capabilities and focus on their disabilities with a lower expectation of rehabilitation.[31,32] Ageism has been clearly evident during COVID-19 in policy responses as well as media and political debates.[33] For example, discussions about the prioritisation and rationing of healthcare resources created a sense that older people are disposable.[33,34] Positively, unlike many other countries Australian policy early in the pandemic rejected the notion of ‘herd immunity’ which would have disproportionately impacted older adults in order to protect the economy in favour of protecting lives through strict lockdowns.[34] However, as some participants in this study acknowledged there was still some degree of downplaying COVID-19 cases and deaths among older people and in aged care reflecting a level of ageism in the community.

Despite the challenges it has raised for the workforce, the negative attention COVID-19 has brought to the sector can be framed as an opportunity to improve the system.[18] COVID-19 has highlighted the difficulty of delivering a social care model in RACFs. This model depends heavily on staff with limited training and skills to respond to complex health and medical needs with a greater focus on addressing residents’ personal care needs and creating a home-like atmosphere.[35-37] Aged care organisations are familiar with managing gastroenteritis and influenza outbreaks. However, even for these relatively common illnesses the quality of prevention and response strategies are variable and, in some cases, limited with resident and staff influenza vaccination rates lower than national targets and few RACFs implementing a documented surveillance system for detecting outbreaks.[38] Prevention and management in these settings is primarily focused on providing hand sanitiser and hand washing facilities and requesting those who are ill not enter the facility.[38] The focus on a social care model means they are ill equipped to manage the stringent isolation and quarantine procedures required for COVID-19 that are well established in acute healthcare settings.[35] COVID-19 has highlighted the need for appropriate staffing levels and skills and during the peak of the pandemic the Australian Government responded to this temporarily by implementing a surge workforce initiative.[36,39] The Royal Commission also acknowledged that systemic shortcomings were highlighted by the impact of COVID-19 in aged care settings.[21] The Royal Commission reports recommended mandatory minimum qualifications, ongoing professional development and improved remuneration for the aged care workforce.[21,40] Short term changes and awareness of deficiencies could, if supported by political will and organisational commitment, render long term and meaningful changes to improve the sector. These governance and system level issues need to be addressed if we are to support improved mental health and wellbeing of workers.

The workloads of aged care workers and the emotional demands of their roles are high with or without COVID-19.[5] There is a need to better support workers for their own wellbeing and for the provision of quality aged care.[41,42] The emotionally demanding nature of the work needs to be recognised in workplace health and safety policy as a psychosocial risk. At an organisational level there needs to be a focus on creating mentally healthy workplaces. For example, being supported by colleagues can increase workers’ confidence in difficult situations and can help reduce stress,[5] the workforce is better able to adjust to the high job demands they face.[43] Organisations need to be agile and responsive to workers’ needs and facilitate opportunities for this support. COVID-19 has necessitated immediate change within aged care organisations that, if sustained, may be positive for the workforce, helping workers feel supported. For example, providing online education and training may improve access for workers in regional and rural areas who in the past have reported a lack of training opportunities.[29,44] Online workforce interventions will also improve access for those working in geographically dispersed organisations, particularly in the community aged care sector and enable greater flexibility in delivery and participation.

The findings reported here are incidental findings from a larger study seeking aged care workers input into developing a capacity and resilience building intervention. This may be a limitation of these findings as due to the focus on capacity and resilience, participants may have been reflecting primarily on the impact of COVID-19 on these topics. There are likely other experiences and impacts of COVID-19 that they did not raise in these discussions. For example, within the Australian aged care sector approximately 10-15% of workers are casual and a similar proportion hold more than one job.[29] The work hours and incomes of these workers are likely to have been impacted by the infection control strategies introduced but these types of impacts were not discussed.[12]

Despite this limitation, this paper adds important insights based on empirical research as Australian literature related to the aged care workforce experience of COVID-19 to date has largely been commentary in nature. A recently published paper explored the challenges faced by RACF staff in Australia during the COVID-19 pandemic using a survey design.[12] While there are similarities in the findings of the survey study and our qualitative study, the survey study focused on the RACF setting and included mostly nurses with few care and activity workers or allied health professionals. Additionally, the data was collected earlier in the pandemic. Therefore, the similarities demonstrate that many of the concerns and challenges were experienced across a range of aged care settings and roles and persisted as the pandemic continued.

CONCLUSION

The COVID-19 pandemic demanded a rapid response from the aged care sector which led to greater demands on the workforce. Aged care workers have experienced many challenges including increased workloads and emotional job demands and feeling undervalued by the wider community. Despite the increased demands, aged care workers have not been supported with increased resources. The findings of this study, in line with the JD-R model highlight the need to address this lack of support for aged care workers to improve their wellbeing and the provision of quality aged care. Aged care workers need to be recognised as frontline workers with their contributions to healthcare and COVID-19 efforts acknowledged at a policy level, in the wider community and through their portrayal in the media. Changes necessitated by COVID-19 have also highlighted the importance of teamwork and the possibilities of technology for ensuring workers feel supported and valued in their organisations. Reflecting on these experiences brings opportunities for improving the sector and support for workers into the future.

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REVIEWS AND DISCUSSION PAPERS

Upskilling Australian registered nurses to enhance students' clinical placement experiences: a contemporary discussion

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ABSTRACT

Objective: To present and discuss options for upskilling registered nurse supervisors to ultimately improve the quality and consistency of nursing student placements.

Background: Many studies have examined clinical learning in nursing, with evidence that student learning and registered nurse clinical supervision experiences can be improved. An independent review of nursing education in Australia confirmed gaps in the preparation and support of supervising registered nurses that may negatively impact students' learning.

Study design and methods: This paper discusses contemporary insights around 1) the current situation in Australian nursing student clinical placements regarding learning, 2) registered nurse clinical supervisor experiences and 3) professional options for recognising role excellence, offered by Australian and international nursing and healthcare specialities.

Discussion: Nursing students' placement experiences are at times sub-optimal. One way to improve learning experiences could be to offer clinical supervisors professional development programs. Now is the time to consider a certification process to recognise excellence in registered nurses' education capabilities and to better support students' clinical learning.

Conclusion: Upskilling registered nurses for clinical supervision may be assisted through formal and informal education programs specific to the professional nursing context in Australia.

Implications for research policy and practice: Upskilling registered nurse clinical supervisors should be a priority on the national agenda of improving students' clinical learning experiences. This commentary provides contemporary insights to the current situation regarding Australian students' clinical placement and supervisor experiences.

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The ways that some nursing specialities recognise excellence in practice are discussed as options for improving clinical supervision.

What is already known about the topic

- Nursing students' clinical placements need improvement; students continue to report less than optimal experiences.
- There are no requirements in Australia for registered nurse clinical supervisors to undertake assessment of capability for the role.
- National and international processes exist to recognise supervisor capabilities and role excellence.

What this paper adds

- Options for recognising capability and practice excellence in nursing clinical supervision.
- A discussion around clinical supervisors engaging with formal and informal education and processes that recognise excellence in role capabilities.

Keywords: clinical placements; clinical supervisors; credentialing; facilitators; nursing; preceptors

OBJECTIVE

This contemporary discussion provides commentary relating to nursing students' and registered nurse clinical supervisors' placement experiences and suggestions for improvement in the quality of clinical learning. The discussion introduces the concept of credentialing as one approach to upskilling registered nurse supervisors and for improving student clinical placement experiences.

BACKGROUND

Both in Australia and internationally, clinical placements are a mandatory component of education for any pre-registration nursing student.[1,2] A registered nurse (RN) who supervises and assesses nursing students' clinical practice is referred to most commonly, as 'clinical supervisor', 'clinical facilitator' or 'clinical teacher'. Meanwhile, nurses who supervise students' practice while maintaining responsibility for a patient load, may be known as a 'preceptor', 'mentor' or 'buddy nurse'.[3] For this discussion we adopt the term 'clinical supervisor' to refer to any RN, irrespective of title, who supervises nursing students' during a clinical placement.

Reports of student experiences of learning during clinical placement are key indicators of successes or barriers to clinical learning. A body of research has reported on the quality of nursing students' clinical learning experiences.[4-6] In the Australian context, positive elements include adequate preparation for clinical placement such as orientation to the facility, the supervisor/s, and the work environment. Placements should offer a welcoming and inclusive environment and include supervision within an organisational culture that embraces clinical learning.[7] Students believed that a lack of supervision and not being included were factors that negatively impacted their learning.[8-10] An Australian qualitative study exploring student clinical learning experiences found students felt clinical learning was stressful because it is unpredictable, and they needed to be included to learn.[8] A separate Australian study further added students were bewildered and confused by university teaching and what eventuates in supervisory practice.[9] Further, a 2021 review reported indifferent staff attitudes detracted from students' learning experiences.[10] An earlier report on the future of nursing education in Australia indicated a need for education providers, placement organisation staff and RNs supervising students, to focus on prioritising planning and preparation of staff and students for clinical placements.[11]

In Australia, the Nursing and Midwifery Board Standards for Registered Nurse Practice,[12] and Code of Conduct for Nurses,[13] prescribe education elements related to RNs being prepared to educate, supervise, and assess others: Standard 3.3: "uses a lifelong learning approach for continuing professional development of self and others".[12] Similarly, the Australian Nursing and Midwifery Accreditation Council (ANMAC), responsible for nursing program accreditation, requires that education providers ensure students undertaking clinical learning experiences are supervised and assessed by "appropriately qualified and experienced RNs…" (standard 1.6).[1]

The recent independent review of nursing education in Australia suggested variability in nursing students' clinical learning experiences could be affected by supervising RNs' levels of experience and role preparation.[11] This report further commented on an "untenable laissez-faire approach to clinical placement supervision" and recommended improved monitoring and "consideration of an accreditation system for clinical placements".[11(p.ix)]

There are many reports of RNs' experiences of the clinical supervisor role, discussing the challenges encountered in managing the role. International works[14-16] invariably conclude there is a need for further effort in preparing clinical supervisors for their role: a phenomenon generating recent interest in Australia.[6,11,17-19] Thus, actioning this recommendation should now become a priority.

DISCUSSION

Further to the introduction above, this discussion now turns to a deeper commentary around developing Australian RNs' clinical supervision abilities. This is one way the discipline could improve the quality of students' clinical learning experiences.

AUSTRALIAN CLINICAL SUPERVISORS' CHALLENGES SUPPORTING STUDENTS' CLINICAL LEARNING

Supervision is described as relationship-based education and training, that is work focused and which manages, supports, and develops supervisees' level of knowledge and current training and professional development.[20] Thereby the relationship formed between the RN and the student is key to students' optimal clinical learning. Understanding Australian RN clinical supervisors' experiences of challenges when supervising students may assist in informing how quality in clinical placements could be enhanced.

A scan of Australian RN studies identified long standing challenges for clinical supervisors. The administrative requirements of the job, completing students' clinical assessments, preceptor fatigue, poor recognition of the role and the disparity between stakeholder expectations of the role, were commonly reported.[17,21,22] Role preparation, learning the role experientially, drawing on tacit knowledge, and working part-time in the role were also acknowledged as challenges for preceptors.[19,23] Such expectations require the RN clinical supervisor to negotiate, sometimes at an advanced level, with peers and nursing managers, in order to keep students and patients safe.[19] As such, it appears RN clinical supervisors may benefit from some educational preparation for the role.

EDUCATIONAL PREPARATION OF AUSTRALIAN RN CLINICAL SUPERVISORS

Postgraduate study programs offer formal educational preparation of RN clinical supervisors. Australian university handbooks readily identify postgraduate studies in clinical education, health professions education, or clinical teaching at certificate, diploma, or degree level. Informal education may be offered through local and nationally designed education provider and healthcare organisations' training programs. Preceptorship,[24] organisational policies, advanced communication skills and feedback are common topics.[22,23] Programs are available as open access, web based, or face to face programs.

Table 1 provides information about four Australian state and federally funded open access, community-based clinical supervision education programs, for any interested RN. Notably, the ClinEdAus program, under the auspices of the Australian Government, offers educational options related to clinical supervision across various practice settings, acute care, community, or mental health. Timely educational offerings are also available, for example the content on

TABLE 1 AUSTRALIAN NURSING CLINICAL SUPERVISION EDUCATION PROGRAMMES IN THE COMMUNITY

Programme	Access eligibility	Format and content
Best Practice Clinical Learning Environment (BPCLE) (2021) https://www2.health.vic.gov.au/health-workforce/education-and-training/building-a-quality-health-workforce/bpcle-framework Project funding: Victorian Health Department	Open access and also subscription-only resources	*Web based* topics include • Planning the placement • Supervisor duties • Delivering feedback • Developing service-education provider relationships • Creating positive learning environments
ClinEd Aus (Enabling Clinical Education Skills) (2022) https://www.clinedaus.org.au/ Project funding: Australian Government/ Queensland Government/ and six partner Queensland Universities	Open Access Online Modules and associated quizzes, blogs.	*Online* topics include • Communication • Assessment • Feedback • Clinical reasoning • Critical thinking • Reflective practice • Working with diverse students • Supporting students in complex practice contexts (e.g. NDIS)
Health Education and Training Institute (HETI) https://www.heti.nsw.gov.au/education-and-training/my-health-learning Project funding: NSW Health	NSW health employees only	Online and face to face Unable to access
Supporting Health Students in the Workplace (UTAS) (2014) http://www.supportingstudents.org.au/ Project funding: Australian Government (University of Tasmania)	Online	Online modules, videos and quizzes • Communication • Learning styles • Assessment • Constructive feedback • Positive learning environments

National Disability Insurance Scheme (NDIS) on the ClinEdAus site, see Table 1. Thus, both novice and experienced clinical supervisors may benefit.

Although some studies have reported the impact of local training sessions on supervisor role satisfaction and working experiences, evaluations of these programs are rarely publicly available. A ClinEdAus site evaluation reported users found the content relevant for supporting student supervision.[25] An Australian local organisation training session did compare Australian preceptors who had completed facility only training, and those with formal educational qualifications, reporting little to no difference in the two groups' skills and knowledge.[24] In other reports RN supervisors have commented that the training content provided by education providers is not always meaningful to them.[23] Other studies have reported that programs offering supervisors' protected time to work with students and that develop supervisor confidence, motivation and attitudes for the role have proven successful. [26] .[26] Such findings suggest the next step could be to nationally explore RN clinical supervisors' motivations, barriers and challenges for completing formal and/or informal preparation for the role. This is important because recommendation 7 of the independent review of Australian nursing education calls for national nursing governing bodies, 'ANMAC and NMBA to implement accreditation systems'[11] (p.14) of host organisations offering nursing student clinical learning. If actioned, this recommendation could be costly,[11] particularly for healthcare organisations made to achieve accreditation through providing education for supervising RNs. A credentialing program is proposed as a cheaper and perhaps more effective alternative. Costs of educating every RN supervisor to meet accreditation requirements would be negated. Credentialing programs recognise both informal and formal educational preparation and could be more effective in encouraging RNs to voluntarily upskill for their clinical supervisor roles.

FORMALISING RN CLINICAL SUPERVISOR CREDENTIALS

In Australia, there are no known competency-based assessments for RN supervisors to complete prior to supervising nursing students' clinical learning.[28] However, a basic level of skill development is implied as necessary in the current national nursing undergraduate degree curricula, as per requirement 3.2 and 3.3 of Standards for Practice.[12] This aims for students to develop peer teaching skills and for RNs to take responsibility towards educating self and others; including students. RN seniority and length of time since qualification may lead to loss of some teaching skills, hence educational preparation is important, as shown by the variety of content in Table 1.

Credentialing is a formal, but often voluntary, process that some healthcare professionals can access to verify and certify documents related to their qualifications, experience, professional standing, professional development, and other relevant professional attributes. For instance, Credentialed Diabetes Educator® (CDE) is a trademark of Australian Diabetes Educators that indicates the professional association has certified the individual for their specialist knowledge and professional development in the field of diabetes education.[29] Australian mental health nurses are also able to achieve voluntary credentialing status through their college.[30] The following statement from Australian College of Mental Health Nurses justifies credentialing of mental health nurses:

> *A Mental Health Nurse recognises the qualifications, skills, expertise and experience of nurses who are practicing as specialist mental health nurses. It demonstrates to employers, professional colleagues, consumers and carers that an individual nurse has achieved the professional standard for practice in mental health nursing.*[31] (p5)

Regarding peak nursing education bodies, The North American National League for Nursing aims to support excellence in nursing education through a voluntary Certification for Nurse Educators (CNE), available to any RN educator. This certification denotes nursing education as a specialty area of practice and the credential is a mark of distinction for the individual nurse.[32]

North American studies report CNE benefits are mostly intrinsic including recognition of advanced practice and specialised knowledge, professional credibility, a sense of role satisfaction and personal achievement. Extrinsic rewards included RNs' increased marketability and consumer/student confidence.[33]

A reported barrier is the financial cost of the application for certification.[33] Interestingly RN's usually do not cite the time taken to prepare for certification was a barrier.[33] The impact of credentialed and non-credentialed RN supervision on students' learning is underexplored, however, students have been observed as more satisfied with their learning from credentialed nurse educators.[34] This is an encouraging finding. Perhaps this is a useful professional development exercise that could assist clinical supervisors to learn how to flourish in the role, thus offering students improved clinical learning experiences.

Although credentialing may not be a preferred option for every Australian RN clinical supervisor, given the identified benefits discussed here, the suggestion is worthy of serious consideration. This could be a positive step in upskilling Australian clinical supervisors to overcome the known challenges they are faced with when supervising nursing students, previously identified as requiring urgent attention.[11]

Certification could enhance recognition for the important role Australian RN clinical supervisors undertake, similar to that of other healthcare and nursing disciplines. We suggest that Australian RNs working in clinical supervision roles and assessing students' clinical performances, should, at a minimum, be encouraged and supported to complete appropriate professional development. Seeking recognition of their speciality role as leaders in nursing education and in preparing students for the healthcare workforce is equally as important.

Furthermore, the recognition of formal and informal professional development achievements may encourage more Australian RNs to seek to advance their clinical supervision capabilities, irrespective of the particular clinical supervision role. Such a move could also reduce the laissez faire approach to supervising students clinical learning identified as a priority area for improvement.[11] With no current minimum postgraduate requirement stipulated in Australia, this may help to address the identified gaps in clinical supervision for both supervising RNs and their students, and lead to more positive student experiences.

CONCLUSION

This commentary adds to the extant literature offering recommendations to address lingering problems of quality in nursing students' clinical placements. Australian nursing students continue to report some unsatisfactory clinical learning experiences, often related to educational unpreparedness of RN clinical supervisors. This discussion recommends ways RN clinical supervisors could prepare formally and informally for the role. There is a need for further investigation into RN clinical supervisor benefits for engaging with formal and educational preparation, and the impact such preparation has on student clinical learning. Credentialing could serve to identify RN clinical supervisors who can demonstrate advanced practice and capabilities in clinical teaching. Recognising excellence in clinical supervision through credentialing processes could improve nursing students' clinical placement experiences. Implementing credentialing or certification processes will only serve to benefit RN clinical supervisors and the nursing students they supervise.

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LETTER TO THE EDITORS

Comment on Jarden R, Scanlon A, Bridge N, et al. 2021. *Coronavirus disease 2019 Critical Care Essentials course for nurses: development and implementation of an education program for healthcare professionals*

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We have read the article published in the *Australian Journal of Advanced Nursing* "Coronavirus disease 2019 Critical Care Essentials course for nurses: development and implementation of an education and implementation of an education program for healthcare professionals".[1] The authors have described their processes of development, implementation, and evaluation of an online educational program to upskill nursing staff to care for acute cases of respiratory failure due to Covid-19 in intensive care units (ICU). They have acknowledged that online education modules are only the beginning of the journey of upskilling nurses for redeployment, voluntary or mandatory, to critical care facilities during a pandemic.[1]

We would like to share with the readers, our thoughts based on four recent peer-reviewed published articles on the experiences of nurses globally, who have received education for upskilling and have been redeployed/ transitioned into ICU during the pandemic. Namely a Canadian observational cohort study on the learning needs of non-critical care nurses identified for redeployment,[2] a Swedish qualitative descriptive study on anaesthetic RNs who had been re-deployed into ICU,[4] and a US qualitative descriptive study on RNs who had been redeployed after completion of a critical care education program.[5] While the fourth article pre-dates COVID, it is an integrated literature review on transitional support required for RNs moving into critical care.[3] In doing this, we would like to highlight redeployed nurses' experiences post receiving online upskilling and therefore, highlight the need for leadership within the receiving critical care units.

The Canadian study surveyed the learning needs of non-critical care RNs identified as candidates for redeployment into ICU,[2] these nurses self-identified the need for:

- revision on appropriate use of PPE,
- cardiac monitoring,
- basic ventilation modes,
- use of vasoactive medications, and
- the role of a critical care RN in the procedure room.

They also piloted the implementation of a team nursing model and concluded the importance of leadership to clarify expectations and implications for those being redeployed.[2] Similar to previous research they identified upskilled and redeployed RNs need preceptorship which is currently supplied for those transitioning into critical care.[2,3] Moreover, like other studies, they emphasised the need to treat redeployed RNs as a welcome addition who can provide the appropriate support required for the significant needs of ICU patients.[2,4]

The Swedish anaesthesia RNs redeployed into ICU shared that it may be a stressful experience, based on a range of emotions from anticipation, excitement and nervousness along with a lack of information causing a sense of powerlessness and being treated as an object.[4] Reports also are emerging from redeployed RNs that far from providing assistance, they were in fact being allocated a full critical care nursing load of complex and unstable patients. This was a far greater nursing role responsibility than they had expected or been led to believe they were going to be undertaking.[4,5]

Similarly studies have noted that participants found some content, such as ventilation to be overly complex.[2,5] Often when a nurse is transitioning into ICU it is via a buddy system and/or preceptorship.[3] Crucially, the US study identified that the provision of a dedicated critical care educational specialist RN is also required to provide support for those undertaking a redeployment into critical care.[5] Compounding this,[4,5] a major drawback has been identified from the outset in a lack of availability of experienced RN ICU buddies or preceptors who were already overworked and struggling to maintain a safe patient to nurse ratio.

While we acknowledge it is difficult to plan for a pandemic, the situation of upskilling has left some redeployed RNs with psychological distress. We also believe it is important to be mindful of longitudinal research and/or the need for a synthesis of the literature as an outcome of this pandemic to future proof the critical care workforce and to ensure the critical care nursing competencies are in alignment with standards for practice and guidelines. A major nursing workforce outcome of this pandemic has highlighted the need not only for more critical care nurses in the workforce, but also for embedding within the undergraduate curriculum more emphasis on leadership and pandemic preparedness.

Whilst Jarden et al. have provided much needed sharing of research on reactive measures for upskilling at short notice. We have highlighted the importance of the need for evidence synthesis in conjunction with longitudinal studies when upskilling RNs into specialised clinical areas to reflect best available evidence practice. We look forward to the authors sharing the results of the impact on the clinical outcomes for their participants and their reflections post participation in the educational program after redeployment into ICU.

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