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EDITORIALS

Bridging the gap: the role of nurses in promoting exercise for cancer survivors

Over one million people in Australia are living with or have lived with cancer.¹ Of these, less than 10% engage in recommended amounts of exercise (75 to 150 minutes of moderate-to-vigorous aerobic exercise and two or more sessions of resistance training, per week) during and after their treatment.² Nurses are instrumental in providing comprehensive care and support to cancer survivors and encouraging healthy lifestyle behaviours.³ Their role in patient care positions nurses as key advocates for promoting exercise as an important component of cancer care, assessing and monitoring cancer survivors' needs for exercise referrals, offering individualised and evidence-based exercise guidance, and referring cancer survivors to suitable exercise programs or specialists.³

Exercise, when appropriately prescribed and monitored, is safe for most cancer survivors.⁴ It is well known that exercise lowers risk for developing cancer, as well as the risk of cancer recurrence, progression, or mortality for people already diagnosed.⁵⁻⁷ Exercise can help cancer survivors maintain or improve physical functioning, combat fatigue and sideeffects of cancer treatment, improve sleep, reduce symptoms of anxiety and depression, and enhance overall quality of life.⁸⁻¹¹

To facilitate a higher uptake of exercise, major international organisations have endorsed exercise as an integral part of cancer care and developed guidelines to support health practitioners in recommending exercise to cancer survivors.⁴ In its 2018 position statement on exercise in cancer care,¹² the Clinical Oncology Society of Australia recommended that all health practitioners involved in the care of people with cancer should:

- 1. view and discuss exercise as a standard part of the cancer treatment plan
- 2. recommend people with cancer adhere to exercise guidelines
- 3. refer patients to an exercise physiologist or physiotherapist with experience in cancer care.

THE GAP BETWEEN KNOWLEDGE AND PRACTICE

Despite this endorsement, there remains a disconnect between the recommended guidelines and the implementation of exercise counselling (i.e., the provision of information and advice about exercise) and referral in clinical practice. Barriers to exercise reported by cancer survivors in the literature include treatment-related side-effects, lack of time, fatigue, lack of facilities, lack of information from health practitioners, low motivation, health problems, and fear of injury.¹³⁻¹⁵ Health practitioners play a crucial role in facilitating health behaviour change among cancer survivors. However, it is repeatedly reported that many cancer survivors do not receive exercise recommendations from a health practitioner,¹⁶⁻¹⁸ despite evidence that those who do are more likely to engage in exercise during cancer treatment. Barriers to implementing exercise guidelines reported among health practitioners include safety concerns, limited time, insufficient knowledge about exercise guidelines, and perceived challenges in altering individuals' behaviour.¹⁹⁻²² These barriers contribute to a knowledge-to-action gap, hindering the effective implementation of exercise guidelines in practice.

INSIGHTS FROM HEALTH PRACTITIONERS

To address this gap, members of the Multinational Association of Supportive Care in Cancer Survivorship Group conducted an international survey of health practitioners, to investigate their knowledge, practices, beliefs, barriers, and facilitators regarding exercise counselling and referral in cancer care.²³ A total of 375 medical practitioners, nurses, and allied health practitioners participated, representing a diverse range of disciplines, countries, and healthcare settings.²³ The survey provided critical insight into the current landscape of exercise counselling for cancer survivors.²³ Although participants generally agreed that exercise counselling should be integrated into routine care, the reality fell short, with only two-thirds reporting its actual implementation.²³ This disparity highlights the need to bridge the gap between intention and action, ensuring that exercise counselling and referral become standard components of cancer care.

Findings from our research are summarised below in four key areas.

Knowledge gap: Although most participants reported having good knowledge about exercise guidelines, this did not translate into their ability to recall exercise guidelines.²³ One-third of nurses accurately recalled exercise guidelines, which was higher than the proportion of medical practitioners (22%) and non-exercise allied health practitioners (7%).²³ This finding highlights the ongoing need for comprehensive education and training programs to equip health practitioners with the necessary knowledge and skills to provide evidence-based exercise counselling to cancer survivors. The specific gaps in knowledge most reported by nurses were knowing how to refer patients to an unsupervised exercise program and knowing how to counsel patient based on exercise guidelines.²³

Barriers and facilitators to exercise counselling: Nurses identified a variety of barriers to exercise counselling, including patients being told by other health providers or family and friends to rest, lack of knowledge on how to screen cancer survivors for exercise suitability, lack of knowledge about how soon after treatment it is safe to start exercise, and knowing that a patient has refused other support services.²³ To overcome these barriers effectively, a multifaceted approach is required, providing health practitioners with adequate support mechanisms and resources. The top facilitators to exercise counselling identified by nurses were having leadership support to refer cancer survivors to an exercise program without a direct request, having an automatic or electronic referral process, an email with information about exercise in cancer, and the integration of exercise specialists into the clinical team.²³

Practice what you preach: Exercise not only offers wellknown health benefits for the general population but has also been found to decrease distress and enhance resilience among health practitioners.²⁴ Our study findings highlighted that health practitioners' knowledge of exercise guidelines and their own adherence to physical activity recommendations were strong predictors of exercise counselling and referral.²³ Thus, exercise serves as a dual remedy – benefiting the health practitioners who provide care and the patients who receive it. This underscores the importance of promoting and supporting health practitioners' own physical activity levels and continuously updating their knowledge through education and training. **Moving beyond recommendations:** We found that participants were likely to recommend that cancer survivors keep active, but less likely to provide specific exercise guidelines, advice, or referrals to exercise programs.²³ This echoes previous research findings and underscores the need for targeted strategies that extend beyond making recommendations alone, to providing an outlet, resource, or referral.²⁵ To address the challenge of connecting cancer survivors with services and resources, communication and collaboration between health practitioners are needed.²⁵

IMPLICATIONS AND RECOMMENDATIONS FOR NURSING PRACTICE

Nurses play a crucial role in the care and support of individuals with cancer and have unique opportunities to influence and promote positive health behaviours. Nurses' regular interactions with patients place them in a unique position to provide tailored and evidence-based exercise recommendations and facilitate referrals to appropriate exercise programs or specialists.²⁶

A crucial recommendation for nurses is to actively engage in the recommended levels of weekly exercise themselves. By adopting regular exercise routines, nurses not only enhance their own well-being and reduce risk of chronic disease but also serve as influential role models for their patients.²⁷ Through personal commitment to physical activity, nurses can effectively promote healthy behaviours and increase the likelihood of encouraging their patients to prioritise regular exercise as an integral part of their cancer therapy.

Given the relationship between health practitioners' knowledge and practice, increasing educational opportunities for nurses is vital to improving exercise prescription. Educational institutions and professional organisations should incorporate education about exercise guidelines for cancer survivors into nursing curricula and continuing education programs, including training in how and when to assess cancer survivors for their suitability to exercise, and optimal referral practices.²⁶ Enhancing nurses' knowledge about the safety and benefits of exercise and confidence to provide exercise screening, advice, and referrals, can support the implementation of exercise guidelines in practice.

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Our findings and the wider literature highlight the need for a team-oriented approach to exercise referrals in oncology. Nurses play a central role in the provision of team-based care and can therefore enable opportunities for collaboration between medical and allied health practitioners to develop interdisciplinary care plans for cancer survivors. Given that physical activity interventions in primary care have been shown to be effective and cost-effective,^{28,29} increasing support for nurses in primary care settings to deliver physical activity promotion interventions is warranted.

Our findings serve as a reminder for not only the nursing community, but all health practitioners to ensure that knowledge about the benefits of exercise for cancer survivors is translated into practice. It is our responsibility to stay informed, continually update our knowledge, and advocate for evidence-based interventions. As the largest health workforce, nurses possess the power to effect substantial change in healthcare practices and guide cancer survivors towards adopting a physically active lifestyle. By recognising the importance of exercise in cancer care and offering evidence-based exercise guidance, nurses can play a vital role in bridging the gap between knowledge and practice.

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RESEARCH ARTICLES

"We are competing with culture" the chasm between healthcare professionals and Australian Samoan women in the prevention and management of gestational diabetes mellitus

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ABSTRACT

Objective: The Samoan community has a disproportionately higher incidence of gestational diabetes mellitus (GDM). We explored consumer and healthcare providers' insight into perceptions of risk, attitudes to lifestyle behaviour change and experiences of GDM among Australian Samoan women in South Western Sydney.

Methods: Semi-structured interviews and a focus group with Samoan women recruited through three churches, a diabetes and pregnancy clinic in South Western Sydney and via social media were conducted. Semi-structured interviews with healthcare providers' were also conducted. Main themes were thematically analysed to identify recurring patterns using Quirkos software. Identified themes were framed against the constructs of the Health Belief Model. **Results:** One focus group (n=4) and 12 one-toone interviews were conducted among Samoan women. Eighteen semi-structured interviews with healthcare providers' were also conducted. There was a high concordance between Samoan women and healthcare providers' regarding perception of risk and barriers to maintaining a healthy lifestyle. However, Samoan women reported negative interactions with healthcare providers' that hindered their behaviour change, while healthcare providers' reported that normalisation of diabetes, confusion of GDM with type 2 diabetes and spiritual health beliefs were deterrents to behaviour change among Samoan women. **Conclusion:** Cross-cultural factors can influence the uptake of a healthy lifestyle. Future research should consider use of culturally tailored strategies when developing educational resources targeting Samoan women.

Implications for research, policy and practice: The participants' viewpoints expressed in this study suggest a critical need for the development of culturally-tailored health promotion strategies for Samoan women and cultural training for healthcare providers', to improve GDM care and subsequent pregnancy outcomes.

What is already known about the topic?

- There is limited data and research on GDM particularly among the Australian-Samoan community though the available data highlight the significant morbidity and mortality due to diabetes in this population.
- Samoan women are at an increased risk of gestational diabetes mellitus.

What this paper adds:

- This paper provides knowledge and understanding on ways to prevent and manage GDM by investigating the perception of risk and experiences of GDM among Australian Samoan women and healthcare professionals in Sydney.
- It provides current evidence base for policy makers and researchers to develop health promotion strategies and interventions that are relevant to the Samoan and other culturally and linguistically diverse (CALD) communities in Australia.

Keywords: Gestational diabetes mellitus, Samoan women, healthy eating, physical activity, healthcare services, Health Belief Model

INTRODUCTION

Gestational diabetes mellitus (GDM), defined as glucose intolerance first recognised during pregnancy that is less than overt diabetes in pregnancy,¹ affects \sim 9% of pregnancies in Australia and up to 25% in other countries.^{2,3} In Australia, Pacific people including the Samoan community, have a disproportionately higher incidence of GDM and are three times more likely to develop GDM compared to Anglo-European women,^{4,5} likely due to their biological susceptibility and lifestyle. Samoans are the second largest Pacific community (N=75,000) in Australia after New Zealand Māori (N=128,430), with a large proportion of Samoans residing in Greater Western Sydney (GWS).⁶ Data from studies among Australian Samoan show that Samoans have a high prevalence of diabetes and its' risk factors compared to the general Australian population.^{7,8} Studies from Samoa and the USA also show Pacific women have higher incidence of GDM compared to Anglo-European women and report insufficient uptake of antenatal services,^{9,10,11} possibly contributing to more adverse obstetric outcomes.^{12,13,14} Additionally, women with GDM are eight-times more likely to develop type 2 diabetes (T2D) compared to women with normoglycaemic pregnancies.15

Regular moderate physical activity and a healthy diet are recommended to manage GDM, including limiting gestational weight gain.¹⁶ However, different cultural beliefs and practices around lifestyle and pregnancy may impact on the lifestyle choices culturally and linguistically diverse (CALD) women make before and during pregnancy.¹⁷ Access to services, relationships with healthcare providers (HCPs) and health literacy may also impact on service uptake and information offered.¹⁷ With Australia's multicultural society and the Samoan community expected to triple in the next decade,¹⁸ culturally competent services need to ensure inclusive healthcare for CALD women. Understanding the context within which GDM occurs and barriers and enablers to care need to be recognised to inform strategies to support and educate Samoan women to prevent and manage GDM.

By understanding perceptions and experiences of Samoan women and their HCPs, strategies can be developed targeting diet, physical activity and health services tailored to the community to reduce the incidence and adverse outcomes of GDM. Health behaviour change models are commonly used to understand and explain how, and why, people engage in health-related behaviours. The Health Belief Model (HBM) is one such model that provides a framework which attempts to predict behaviour change in disease prevention, by focusing on individual's attitudes and beliefs.¹⁹ The HBM was developed in early 1950s to explain preventive health behaviours such as why people did not attend free screening tests.^{20,21} The HBM consists of five dimensions that describe a persons' health belief, and suggests that individual perceptions of disease susceptibility and severity, benefits and barriers to enacting a behaviour and cues to action influence their health-related behaviours.¹⁹ The HBM is widely used to underpin health behaviour change interventions and determine the likelihood of individuals engaging in disease prevention activities.^{22,23} In this study, we sought to explore Samoan women's perceptions of risk and

experiences of GDM, as well as barriers and facilitators to care and behaviour change among Samoan women and HCPs. The HBM was used as a conceptual framework to identify perceptions and experiences of GDM in Samoan women and HCPs, and identify main factors influencing lifestyle change.

METHODS

STUDY SETTING AND RECRUITMENT

A purposive sample of Samoan women with, or and at risk (defined by Samoan ethnicity),² of GDM (18-50 years) were recruited from three SWS Samoan churches, a SWS diabetes and pregnancy clinic and via social media (Facebook). Individuals from churches were invited through participation in a church-wide diabetes prevention study.⁷ Within the clinic, flyers were distributed and clinic staff and a researcher (DN) invited women face-to-face to join. HCPs were recruited from the same diabetes and pregnancy clinic. HCPs were purposively sampled to include different health specialities (endocrinologists, midwives, obstetricians, dietitians and credentialled diabetes educators). Purposive sampling was considered appropriate to consciously target participants to help reach the study objectives. HCPs were invited via email or approached by a researcher at the clinic. On Facebook a link with details of the study was promoted in Pacific community groups and people were encouraged to share the links with women of Samoan background. Data collection took place between July 2018- September 2019. Ethics approval was obtained from the University Human Research Ethics Committee and the Local Health District Human Research Ethics Committee and informed consent (written and verbal) was obtained from participants. Verbal informed consent was obtained prior to conducting telephone interviews.

DATA COLLECTION AND ANALYSIS

To provide flexibility, women were given the option to participate in either interviews or focus groups. Indepth semi-structured interviews and focus groups were deemed appropriate, as they are effective in describing, understanding and explaining areas/topics of interest.²⁴ Participants recruited through the churches were offered the choice of either participating in a focus group or an interview. Focus groups were offered at church and interviews offered either at participant's homes (face-to-face) with no other family members present or via telephone. The focus group session and interviews were facilitated and conducted in English by DN (a female PhD candidate and registered nurse trained in qualitative research not of Samoan background but from another CALD group). One bilingual author (RT), fluent in English and Samoan was available to provide clarification for any Samoan idiomatic expressions as required. To achieve the aims of the study and facilitate the discussions, an interview guide was utilised

(Supporting Table 1) comprising of questions on GDM status, knowledge of GDM and diabetes in general, perceived knowledge of GDM in relation to lifestyle behaviours and experiences with HCPs around lifestyle and diabetes support. HCPs interviews (face-to-face or telephone) were conducted by DN using an interview schedule (Supporting Table 2). Questions centred around their treatment, advice and perceptions of adherence and barriers to uptake of lifestyle behaviour change. Data were collected until thematic saturation was reached, where no new information emerged from the data.²⁵ Discussions from the focus group and interviews were audio-recorded, transcribed verbatim and identifiable information removed. A general inductive coding approach,²⁶ was used to analyse data using Quirkos software for data management.²⁷ Repeated readings of transcripts were undertaken to identify areas of interest and recurring patterns in data aligning with the study objectives. One author (DN) coded data initially to identify patterns from participants' responses and developed a coding framework. Two authors (FM, KM) then independently coded and analysed 10% of the collected data and refined the coding framework in consensus with DN. A deductive thematic approach was used to assign the main patterns identified into the five pre-defined constructs, 'themes,' of the HBM namely: perceived susceptibility; perceived severity; cues to action; perceived benefits and perceived barriers.¹⁹ The overall main patterns identified were independently examined by authors and meetings held until consensus was met.

Results are presented as themes (in relation to constructs of the HBM) with findings related to each construct illustrated using quotes from participant's statements. Patterns identified as not 'fitting' in the HBM model are reported as complementary themes.

RESULTS

One focus group with four women (at church), 12 individual interviews (nine phone interviews, three face to face interviews in participant's homes) and 18 HCPs interviews (15 face-to face and three via phone) were conducted. Interviews lasted approximately 21-80 minutes. The focus group lasted 60 minutes. Study demographics are listed in Table 1. One woman with GDM was 36 weeks pregnant at the time of the interview and was insulin medicated. Four of the women with a history of GDM were treated with insulin, which was stopped after delivery, while one woman followed a dietmanaged program and another was treated with metformin. Eleven women reported a first-degree family history of diabetes including T2D and GDM. Two women had GDM for the first time and five women had GDM in previous pregnancies. Figure 1 displays the five constructs of the HBM and the main patterns (sub-themes) that emerged from the data.



This figure is a modified version based on Strether and Rosensrock 1997^{19} and Ge et al. $2016.^{39}$

FIGURE 1. THEMES AND SUB-THEMES ARISING FROM THE DATA FRAMED AGAINST THE CONSTRUCTS OF THE HEALTH BELIEF MODEL

TABLE 1. CHARACTERISTICS OF PARTICIPANTS INTERVIEWED

Australian Samoan women interviewed	n=16
Mean age± SD (range) years	39±8 (19–50)
Women diagnosed with GDM (previous/current)	7
Women with type 2 diabetes	1
Women without history of GDM	8
Healthcare providers (HCPs) interviewed	n=18
Years of experience (Mean±SD; range)	9±7 (2–19)
Female	n=15
HCPs specialties	
Endocrinologist	n=4
Clinical diabetes educator	n=5
Dietician	n=3
Midwives	n=4
Obstetrician	n=2

Note: GDM=gestational diabetes mellitus; SD=standard deviation; n=number of participants in each group

PERCEIVED SUSCEPTIBILITY

In this study perceived susceptibility referred to the degree to which a woman believed she was susceptible to experiencing GDM and/or related complications. Perceptions of susceptibility of GDM and its complications (including future risk of T2D) varied among Samoan women. Despite most women (12/16) having a family history of T2D or GDM, some women felt they were not at risk of GDM or T2D because they felt strong, had no prior health problems or lacked knowledge on GDM as described by one woman.

"Yeah, my mum has diabetes, I think, but I'm not sure what type...I don't know much about diabetes in general let alone with pregnancies" (19 years, No GDM).

Women with a history of GDM stated they knew little about GDM prior to diagnosis, however, three women with GDM felt they were susceptible to GDM because it was a common occurrence in their community.

All HCPs stated that every Samoan woman was at increased risk of GDM due to their ethnicity, family history of diabetes and high BMI prior to pregnancy:

"I say for particularly Samoan women, I think it's definitely their ethnicity...there's usually family history. We see a lot of Samoan population have diabetes already. We would tend to say probably as a generalisation that a lot of the Samoan women that we see have a very high BMI even before going into pregnancy" (HCP 13).

HCPs stated that Samoan women's view of health affected their perception of risk and understanding of GDM. HCPs felt diabetes was 'normalised' in the community and was seen as a normal part of ageing and that most Samoan women, due to their strong religious beliefs, had a fatalistic attitude towards their health.

"I think there certainly is a cultural aspect of their perception of what health is. I think Samoan women may perceive health and illness and the effect of GDM on themselves differently. Maybe they don't see it as much of a problem as the health professionals...when they think that "there's not much I can do about it. This is what was meant to happen to me" and again, you'll find that a lot of these women have family members with type 2 diabetes. So, again, they might see it as a normal part of getting old because their father got type 2 diabetes or their mother got type 2 diabetes" (HCP 6).

PERCEIVED SEVERITY

Perceived severity referred to how women perceived the seriousness of GDM and measures they took to prevent GDM and its complications. According to one Samoan woman, health conditions such as diabetes are not considered severe unless there are visible symptoms of the disease, which would then trigger them to seek medical help.

"I think that in Samoan culture, it takes a lot for them to go to the doctors about it because they're very stubborn about issues that they can't see, or especially ones that are diet-based or if the diet is a huge factor in it, I think they disregard it oftentimes." (19 years, No GDM).

Nearly all women (5/7) with GDM were aware they were at increased risk of having diabetes later in life, although their understanding of their risk varied. Once diagnosed with GDM there were attempts to engage in healthier lifestyle choices. Three women reported trying to maintain a healthier lifestyle to have a healthy pregnancy and baby. However, HCPs believed some Samoan women wanted a healthy baby but were not necessarily concerned about some complications of GDM. The lack of concern was attributed to by HCPs as a lack of adequate GDM knowledge and its complications which they observed through some women 'making up' their blood sugar readings, normalisation of diabetes in the Samoan community and confusion with T2D. "I think as well because they know other people with diabetes and their blood sugars maybe quite have been higher. They think that their own blood sugars are probably okay because it's been lower than other people but not understanding they're a target for GDM for much lower and something that reads in that the targets are much lower" (HCP 11).

Four women viewed GDM as severe and expressed concern that GDM had long lasting consequences to both mother and baby. They reported eating more healthily and increasing their physical activity, although this increase was reported to be challenging. One of these women reported feeling guilty for being diagnosed with GDM as she felt it was her duty to protect her child but had 'failed'.

"Well for me, the scary thing was passing the diabetes to my child. It is almost like it's the mother's job to protect their baby. I actually felt like I failed my baby when I got diabetes. I think that's why I took it seriously because I knew if I couldn't control it while I was pregnant, my baby could possibly get it when it was born" (34 years, GDM).

HCPs acknowledged that although some women were aware of the severity of GDM, competing interests between Western medicine and cultural expectations affected how Samoan women adhered to HCP advice.

"I tend to find a lot of the ladies, they've still got to manage their family, cook the meals for the family, do things for their family and even extended family in cultural situation...so that makes it difficult, then they've got to try and blend the two cultures and they tend to stick to their traditional way of doing things" (HCP 6).

So, you (Samoan woman) might have been born in Australia, but your mum, your aunties, your grandmother weren't. So, you say to them, "Mum, auntie, I'm pregnant," all the things that are said, the things that are passed down through the generations. So, then this girl comes to us and we say, "Why are you doing that for? No, do this, do that," and it's very conflicted. So, who does she listen to? So that's one issue here" (HCP 13).

CUES TO ACTION

Cues to action included factors triggering decision making, which may have been internal (e.g. disease symptoms) or external (e.g. advice or information from HCPs). Some women expressed that a GDM diagnosis was a trigger to change their lifestyle to protect their child. Four women acknowledged that the experiences of family members with diabetes made them change their behaviour to break the cycle of diabetes.

"For me, because I have seen some people going through diabetes and they have diabetes, and it's not a good thing so I don't want diabetes. I need to have a healthy lifestyle and stay healthy for my kids, because I want to see my kids getting married and have family" (35 years, No GDM). This was echoed by HCPs who expressed concern there was some normalisation of diabetes leading to women not always taking the advice given to them, unless they had a family member with diabetes complications.

"Again, you'll find that a lot of these women have family members with type 2 diabetes. So, again, they might see it as a normal part of getting old" (HCP 6).

For others, the cue for action to change their lifestyle behaviour was through education from HCPs and complications during pregnancy.

PERCEIVED BENEFITS

Perceived benefits referred to whether adopting a healthy lifestyle and attending diabetes specialists' appointments (endocrinologist, dietitian, diabetes educator or obstetrician) for those with GDM would result in positive health outcomes. Women with GDM expressed perceived benefits of adopting healthier lifestyles and attending specialist appointments for the sake of their unborn child and to avoid complications of GDM.

"... I had set my mind that I was gonna have a natural birth, which is why it was important to keep my baby under four kilos, which is why I changed my diet around." (34 years, GDM).

The desire for a healthy baby was also reported by HCPs as the main reason for behaviour change and attending specialist appointments by Samoan women.

PERCEIVED BARRIERS

Perceived barriers refers to these women's own evaluation of obstacles to engaging in healthy lifestyle behaviours or seeking support from family/HCPs to prevent and manage GDM. Common barriers that emerged from the data from both Samoan women and HCPs were lack of understanding of GDM, cultural norms and expectations, financial constraints and lack of time. Women stated additional barriers to care included negative experiences with HCPs. Barriers specific to HCPs included limited resources in managing women with GDM and cultural incompatibility, especially in relation to diet and normalisation of diabetes. Interactions with HCPs influenced whether Samoan women returned to their HCP or not. Women reported lack of personcentred care with some stating they felt like a 'number' during appointments.

"On actual appointment to see the doctors, you're just like a piece of meat. You go there, you take a ticket, you wait, and you just wait for hours and hours on end for diabetes. I feel like they need to – because they only make gestational visits once a week? And that's for all us women with gestational in [hospital] area to come all on this one day....But maybe they should make it more than one day for gestational diabetes. There's a lot of us" (35 years, GDM). Due to lack of awareness of GDM, several women did not immediately take charge of their GDM. They reported not receiving personally tailored information at their first appointment. According to the HCPs, however, due to the high number of GDM in SWS, there is a set pathway once GDM is diagnosed where women attend a group session delivering generic information not tailored to Samoan women's needs. However, culturally inclusive 1:1 sessions with diabetes educators and dietitians were also planned for women with GDM after the group sessions. HCPs acknowledged that more culturally tailored resources and strategies were required to address the burden of GDM in SWS.

"I think it's time to actually have culturally-specific education programs and literature and resources. There should be big posters up on the wall that doesn't just say in English... put something on their language, and don't just have white faces, have Samoan women on a Samoan poster and stick it out there in the churches, in the community groups, in the sports clubs, anywhere, start giving these messages out there that target them, and I think you'll go a long way but also it's about community engagement as well. So finding people who are elders in the communities and getting them on board" (HCP 13).

Women reported that decisions on their care and GDM management were not always inclusive, with one woman saying care decisions were imposed on her by HCPs rather than having the opportunity to ask questions and be involved in decision making. On the contrary HCPs stated most Samoan women agreed with their advice and did not ask questions during appointments with the assumption this was a cultural issue.

"They're not a culture that – well...they're just likely to nod and listen to you and agree, but whether they achieve it or not, it's a different thing once they get into their own setting. I just think it's probably a cultural thing" (HCP 8).

Notably, one woman stated she would just say 'yes' to get through her dietitian appointment and had no intention of changing her diet.

"Because for me, I started snorting back at her and I'm very uncomfortable and she kept going, to the point when I was just saying, "Yeah, yeah, yeah. Okay, okay, okay," just to get that point over and done with" (34 years, GDM).

Six women with GDM and one woman with T2D expressed concerns with the experiences they had with their dietitian. Women stated the dietary advice from their dietitians was unrealistic and not part of the Samoan culture, therefore they did not change their diet as suggested.

"But it wasn't realistic what they were telling me. They were like have say for breakfast, I usually have – if I have four Weet-Bix, they were telling me to have one, skimmed milk, just stuff that I don't eat." I didn't do it how I should've..." (35 years, GDM). Both Samoan women and HCPs also reported that cultural norms and expectations were a deterrent to adopting and maintaining a healthy lifestyle. Ability to maintain a healthy diet in particular was reported to be a struggle due to the Samoan hospitable nature, and women expected to be 'big' to look healthy.

"With our culture, we're very hospitable people right! So when you're visiting someone in hospital, or you visit someone at their house, when you come over, you always bring food as a gesture of a good guest or wellbeing or wishing them well, so it's also rude if you don't eat that food... I could just overindulge on them for the sake of eating that" (34 years GDM).

HCPs acknowledged diet and weight were often difficult topics to discuss with Samoan women, as they understood food is an integral part of Samoan culture. One dietitian further acknowledged most women dislike dietitians as they are usually trying to change their eating habits.

"A lot of people don't like dietitians. Because I guess food is part of their culture and they don't want someone to tell them not to eat certain foods. It's the stigma around dietitians..." (HCP 5).

HCPs also felt cultural traditions such as weight perceptions among the Samoan community were a barrier to healthy lifestyle adoption. Only a few women talked about the importance of physical activity to prevent and manage GDM. The most common barrier for not engaging in regular exercise was cost.

"Financially up till now is the main issue to me and I'm sure most of our Pacific women because we have to pay. That's the other thing that will stop us from exercising and losing some weight – is the cost." (45 years, GDM).

Busy clinics, scheduling of appointments and family commitments were also barriers perceived by both Samoan women and HCPs that prevented women from returning to specialist appointments or maintaining a healthy lifestyle.

"I think for all women, our clinics are very busy and often run late, particularly for women who have other children, if they have other commitments, looking after the children, it's a burden to come to the clinic. We only have the clinic one day a week, so they have to be able to come to that. I think sometimes maybe even seeing a male doctor or seeing someone who doesn't necessarily understand their cultural background" (HCP 1).

COMPLEMENTARY THEMES

SOCIAL SUPPORT AND FOLLOW-UP CARE

Samoan women and HCPs acknowledged that family members have a strong mediating influence on behaviour. Social support (family and friends) was useful especially in women who experienced post-natal depression following a GDM diagnosis, with women stating that this support assisted with their mental wellbeing including recovery. However, family members and social events were also identified as reasons hindering women from eating healthily.

"Well, in our culture, we love – when we get together, we have big meals. It's like a feast. So I really have to control myself. Family is very important with our cultures...if you don't eat, it's very rude, so you've got to eat a bit" (47 years, No GDM).

In addition to social support, women with GDM stated follow-up appointments by a midwife/nurse assisted in their recovery and requested more visits until their children were immunised.

"I got a nurse come in once – before when she was first born, when she was a newborn, they came every week. It's been a big help – first to my mental state and just to have somebody there reassuring like I'm doing a good job" (35 years, GDM).

Five women with GDM felt that HCPs were most concerned with the baby but follow-up care for themselves after delivery was poor.

"I felt like the information in the beginning of my pregnancy, when I was pregnant and the support during the pregnancy was good. However, now that I've had the baby, I feel like it's all gone quiet on me. So I feel like the support is there before and during the pregnancy. It's after the pregnancy that I feel that it lacks (34 years, GDM).

DISCUSSION

This study used the HBM framework to explore perceptions of risk and experiences of GDM as well as attitudes and challenges towards behaviour change among Samoan women and their HCPs. Generally, a high level of concordance existed between women and their HCPs regarding perceptions of risk and barriers to maintaining a healthy lifestyle and attending specialist appointments. However, Samoan women reported negative interactions with HCPs hindered their behaviour change, while HCPs reported normalisation of diabetes, confusion of GDM with T2D and spiritual health beliefs were barriers to behaviour change. These findings show some consistency with previous studies among Pacific communities (including Samoan communities) in Australia and New Zealand, although these studies were not related to GDM.^{28, 17} Additionally, lack of time due to competing family needs and financial constraints also influenced the uptake of healthy behaviour change among Samoan women. Studies conducted among other CALD populations in Australia highlight similar constraints to uptake of preventative health services in CALD women.^{29,30} Our study also found Samoan women have low perceptions of risk and awareness of GDM, consistent with existing literature on Samoan women in the Independent State of Samoa and the USA.^{31,32}

According to the HBM, perceived susceptibility and severity of a health condition (e.g. GDM) should motivate women to engage in health-related behaviours,33 however our results suggest otherwise. In this study, perception of risk and complications of GDM did not always translate into behaviour change, with many citing barriers to changing their behaviour. A possible explanation is the prevailing perception that GDM is a common occurrence during pregnancy and transient, so it would disappear following delivery. Lack of behaviour change may be further amplified by advice from HCPs that GDM would 'go away' after delivery. The findings in our study were similar to those of a review by Parsons et al., on perceptions of women with GDM, which found the information provided by HCPs about GDM led women to be complacent after giving birth.³⁴ This information may be given to women by HCPs to reassure them and reduce anxiety, especially women being treated with insulin,35 with treatment of diabetes with insulin perceived as a signal of a severe state of the disease.³⁶ HCPs should therefore be cautious about the reassurance they provide these women about the resolution of GDM after delivery and their future increased risk of T2D. HCPs reported Samoan women's high reliance on their cultural norms and religion may result in their reluctance to engage in preventative health, consistent with studies among American Samoan women.^{11,13}

There were mixed experiences around interactions with HCPs although all women in our study expressed dissatisfaction with dietitians, whom many women stated lacked sympathy and cultural awareness. Samoan women reported that dietary information targeted all women with a 'one size fits all' dietary approach. This was similar to another study conducted in Australia, which included Anglo-European women and CALD women, which found CALD women with GDM reported that information delivered during group sessions was tailored for Australian-born women only, and that HCPs lacked cultural awareness, resulting in miscommunication on dietary advice.³⁶ This discourse was reflected between Samoan women and HCPs in our study. HCPs, in particular dietitians, reported offering culturally specific dietary advice, though they acknowledged the Samoan cultural information they had was limited. Food and family are an integral part of Samoan culture with sharing of food common practice during visits and gatherings, making healthy lifestyle changes problematic. It would be challenging to expect every HCP to have knowledge of every culture in Australia, given its highly multicultural nature. However, development of technology, such as computer software, consisting of culturally specific food examples from different ethnicities, may assist HCPs to provide culturally tailored advice. Having such technology could assist HCPs to tailor education around the health needs of different CALD groups, including the Samoan community, ensuring advice is better understood and relevant. These findings mirror those of studies conducted with other CALD groups in the

UK and Australia, demonstrating that these experiences and the 'chasm' between HCPs and women are not unique to Samoans, or an Australian context.^{30,36,37}

Overall perceived barriers to changing behaviour outweighed perceived benefits from the perspectives of both women and HCPs. This likely explains why many women did not change their health behaviour before or after birth. Further, perceived benefits were for a healthy baby rather than for themselves, indicating most women would be unlikely to continue healthy behaviours after the baby was born.

STRENGTHS AND LIMITATIONS

This is the first qualitative study to explore perceptions of risk and experiences of GDM as well as perceptions of barriers and facilitators to care and behavioural change among Samoan women and HCPs. This study adds to other Australian based studies which explore the perception and experiences of GDM among women from other CALD communities^{33,35} by providing specific strategies to improve healthcare provision among CALD women. This study recruited Samoan women through various methods who attended different diabetes clinics for their diabetes management. Their experiences were therefore not just limited to one health centre or women under the care of one professional, and should represent the care received by the wider Samoan female population in SWS. The HCPs interviewed consisted of multiple professions providing diverse perspectives on GDM management among Samoan women in SWS. In addition, one of the authors (RT), who is Samoan, acknowledged and confirmed interpretation of study findings were representative of her experience of community beliefs. This study also had limitations, however. First, participants were not contacted to review their transcripts, which may have helped further validate findings. Further, the small sample size comprising of women living in South Western Sydney may not represent a complete picture of Samoan women and may not be generalisable to the wider Australian Samoan community. However, the Samoan women in this study were diverse in age and recruitment continued until data saturation was met. Additionally, there are limitations around the generalisability of this study due to the qualitative nature of the study methodology.³⁸ However, data was collected from a diverse range of participants and the qualitative research methodology was the best method of addressing the study research aim. There may have been recruitment bias as some women with or at risk of GDM were recruited from an ongoing church-based diabetes prevention study.7 These women may have been more conversant with some diabetes topics. Although the current study aimed to gain insights into perceptions and experiences of risk of GDM, women participating in the diabetes prevention study may have gained knowledge on diabetes prevention topics such as diet and physical activity, which they may have shared when conversing about GDM.

However, the findings from those that had not been part of the diabetes prevention program were consistent with diabetes prevention program participants. HCPs were asked to describe their experiences treating Samoan women, but they may have inadvertently described their experiences with women of other Pacific Island backgrounds. In addition, while women were recruited from multiple locations, HCPs were recruited from one centre, therefore their opinions may not be representative of other HCPs in different settings.

CONCLUSION

Our study highlights significant cross-cultural discordance between Samoan women and HCPs. Samoan women reported negative interactions with HCPs as deterrents to behavioural change and HCPs reported normalisation of diabetes, confusion of GDM with T2D and spiritual health beliefs as perceived barriers to preventing and managing GDM among Australian Samoan women. Future research and health promotion initiatives should consider the strategies and recommendations arising from our findings presented in Box 1 when developing interventions and educational resources targeting women from CALD backgrounds.

Recommendations to improve health behaviours and healthcare access for CALD women based upon experiences with Australian Samoan women

- Develop more inclusive culturally tailored GDM resources for CALD communities. This could include use of posters featuring CALD women rather than Anglo-European women displayed in clinics and community centres.
- Develop technology, such as computer software, consisting of culturally specific food examples from different ethnicities, which may assist HCPs to provide culturally tailored advice that will be better understood and relevant.
- 3. Healthcare systems to facilitate culturally competent healthcare workers to ensure HCPs provide clear cultural specific lifestyle messages and awareness of future risk of type 2 diabetes after a GDM diagnosis to CALD women.
- 4. Involve influential CALD community leaders when developing health promotion strategies.
- Consider employing CALD healthcare professionals or bilingual workers to bridge the gap between western medicine and specific CALD community cultural beliefs.
- 6. Deliver culturally-specific gestational diabetes education sessions for CALD women where they can exchange ideas including barriers they may face, both in terms of access to healthcare and ability to undertake lifestyle recommendations.
- 7. Offer more specialist appointments at a wider range of times and days during the week

BOX 1. STRATEGIES AND RECOMMENDATIONS TO IMPROVE HEALTH BEHAVIOURS AND HEALTHCARE ACCESS

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Single registered midwives contributing care for general patients: a scoping study

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ABSTRACT

Background: Midwifery vacancies persist in small maternity units in Australian rural and private settings where midwives are expected to also care for general (non-maternity) patients when midwifery activity is low. Recruiting dual registered nurse/midwives over single registered midwives is preferred, as single registered midwives are seen as inflexible to assist with nursing work. Little is known about single registered midwives' contribution to care of general patients in small maternity units.

Objective: This scoping study aimed to consult single registered midwives and managers of single registered midwives to determine perspectives on single registered midwives' contribution in small maternity units where the workload encompasses both midwifery and care of general patients, to inform further research.

Study design and methods: This study used a qualitative description design. Two online focus groups were held, one containing three single registered midwives, the other three managers of single registered midwives. Similar questions were posed to each group about single registered midwives' contribution to care in small maternity units. Data analysis was conducted collaboratively through coding and thematic categorisation processes.

Results: Four major categories were found. Single registered midwives' scope of practice concerning general patients is undefined; single registered midwives possess transferrable clinical skills applicable to general patients; practical, professional, and emotional barriers exist for single-registered midwives in small maternity units; and future research recommendations include scope of practice and workplace experiences.

Discussion: Persistent midwifery vacancies are implicated in the closure of small maternity units to the detriment of childbearing families. Understanding the contribution of single registered midwives in small maternity units will inform future research and midwifery recruitment strategies to improve access to services.

Conclusion: The experiences of single registered midwives working in small maternity units warrants further investigation. This scoping study contributes to the literature about single registered midwives' experiences in small maternity units and suggests considerations for future research.

Implications for research, policy and practice:

Findings from this study provide information about the contribution of single registered midwives to small maternity units where there is an expectation to contribute to care of general patients in addition to midwifery. Future research into the experiences of single registered midwives working in these settings will generate information to inform recruitment strategies, potentially improving access to maternity care in small maternity units and may be used in the review of midwifery regulation and educational standards.

What is already known about the topic?

- Midwifery vacancies persist in small maternity units in rural and regional areas where the workload comprises both midwifery and nursing practice, despite strategies to recruit dual registered nurse/ midwives.
- Dual registrants face challenges in maintaining both nursing and midwifery professional obligations in small maternity units.

• There are increasing numbers of single registered midwives registering each year in Australia and educational opportunities to become a single registered midwife exist in rural settings.

What this paper adds:

- Single registered midwives make a useful contribution to care in small maternity units, and they assist with the care of general patients.
- The scope of practice for single registered midwives in assisting with general patients is not defined.
- Recommendations for future research include scope of practice for assisting with general patients and workplace challenges faced by single registered midwives because of their midwife-only qualification.

Keywords: midwife; direct-entry; dual-registered; scope; workforce; rural.

OBJECTIVE

The objective of this study was to scope the perceptions of Single Registered Midwives (SRMs) and Managers of SRMs (Managers) on the contribution of SRMs to small maternity units in Australia for the purpose of informing future research and to begin to address a gap in the literature about this topic. Persistent midwifery vacancies have been implicated in the closure of small maternity units, particularly in rural areas, with associated poorer outcomes experienced by childbearing women and babies who live in these communities.^{1,2} This study provides guidance for future research to help inform midwifery employment policy, potentially improving access to maternity care in Australian rural and private settings.

BACKGROUND

Prior to the last 20 years in Australia compared to other countries, registered midwives have also been registered nurses, known as "dual registrants". To some degree, this convention was maintained because small maternity units in rural and private hospitals require a flexible workforce: dual registrants may be deployed to midwifery or nursing areas across and sometimes within shifts depending on demand. However, in 2002 the Bachelor of Midwifery was introduced in Australia resulting in midwives registering without also being a registered nurse.³ The requirement to work across nursing and midwifery areas in small maternity units underpins strategies to discourage employment of midwives who are not also registered nurses (identified as 'Single Registered Midwives' and colloquially known as 'direct entry' midwives). The term 'Single Registered Midwives' chosen for this study may imply something is missing, i.e., registered nurse qualifications. However, it is the holding of midwife qualifications without registered nurse qualifications that underpins the focus of this study and the emerging themes, therefore the term is appropriate.

The requirement for SRMs to also care for general patients raises questions around scope of practice and responsibility for care, inherent in decisions to delegate care of a general patient to a SRM. Delegation decisions between nursing and midwifery are underpinned by the Nursing and Midwifery Board of Australia's [NMBA] Decision-Making Framework (DMF).⁴ In small maternity units SRMs assist with general patients within their scope of practice of midwifery, yet defining scope of practice for midwives in caring for general patients is complex as the regulatory approach to scope of practice is flexible to allow for expansion of scope whilst also ensuring safe care.⁴

Despite the implementation of strategies to increase recruitment of dual registrants, midwifery shortages persist in small maternity units in rural and regional areas,⁵ and private settings in Australia. For this study, the characteristic of midwives being expected to also care for general (nonmaternity) patients during periods of low midwifery activity, was used to define a 'small maternity unit'. Conventional measures to categorise maternity units, such as using bed or birth numbers, or geographical population data as in the Australian Statistical Geography Standard do not account for small maternity units situated in private hospitals in regional or metropolitan areas, nor do they describe the requirement for midwives to also work in nursing roles.

Concerningly, midwifery shortages have been implicated in the closure of maternity services in Australia in recent decades. Kildea report that between 1992 and 2011, 255 or 41% of all maternity units in Australia closed, and of these, 36 were in Queensland.¹ Similarly, Brown and Dietsch report that 32 maternity units have closed in New South Wales since 1992.⁶ Kildea demonstrated a statistically significant correlation between the numbers of maternity unit closures and an increase in babies being born prior to arrival at a maternity service.¹ Women giving birth prior to arrival at a maternity service are at risk of poorer outcomes such as perineal lacerations, and babies are more likely to be admitted to a neonatal unit and to be at increased risk of perinatal mortality.^{1,2} In addition, women who are required to relocate away from their community for birth as a result of local maternity unit closures face increased financial pressure and negative psychosocial outcomes.^{1,2,7}

LITERATURE REVIEW

Although small maternity units as defined in this study occur in all geographical locations and across health sectors in Australia, literature specific to the midwifery workforce where midwives are required to work in both midwifery and nursing roles is restricted to rural and/or remote areas. Specifically, there is a lack of literature about the experiences of SRMs working in small maternity units and assisting with general patients. Yates explored the experiences of eight dual registered midwives in a small maternity unit in rural Queensland and found dual registrants face challenges in keeping abreast of the professional requirements for both the nursing and midwifery professions.⁸ This was also found in a study by Gray about how dual registrants provide evidence for both professions as required by the regulator;⁹ and Longman in a study exploring barriers to implementation of maternity reforms in rural and remote areas in New South Wales, Northern Territory, Queensland and Western Australia.¹⁰ Opinion pieces by Yates, Francis and Stewart espouse the benefits of dual registrants over SRMs for work in rural maternity units.^{11,12,13} This pervading view is evident in participant responses in the Longman study, as well as in Kruske study about Australian primary maternity units, and Dawson study which considers caseload midwifery for rural areas,^{2,10,14} however, the argument lacks depth because the contribution of SRMs working in small maternity units is not considered.

The literature suggests caseload midwifery, a model of care where midwifery workload is mapped to the provision of antenatal, birth and postnatal care for a group of women, is a potential strategy to attract midwives in rural areas.⁶ However, availability of caseload midwifery models in Australia is low with around 8% of childbearing women able to access this model of care nationally.¹⁴ Nevertheless, caseload was confirmed as feasible for rural maternity units in a review by Brown and Dietsch, and in an implementation study by Tran.^{6,15} However, apart from opinions expressed by some authors, the discussion about caseload midwifery does not specifically include suitability for SRMs.

The literature shows that despite strategies to recruit dual registrants, the problem of midwifery vacancies in small maternity units persists, yet the views of SRMs contributing in this setting are not evident. Based on the background problem and the absence in the literature of the perspectives of SRMs working in small maternity units the research question for this scoping study was: What are the perspectives of Single Registered Midwives and Managers of Single Registered Midwives on the contribution of Single Registered Midwives working in small maternity units?

METHODS

This scoping study was undertaken using a qualitative description design, which is useful for answering a research question where it is necessary to gather information from participants who have experienced the phenomenon in question.¹⁶ Two online focus groups were conducted; one containing three SRMs, the other containing three Managers of SRMs, and each focus group lasted between 40 – 45 minutes. Separate focus groups were convened so participants could speak freely without any risk of influence upon their responses, or for the SRMs, power distance-related inhibition. The focus group questions aimed to elicit SRMs' experiences of midwifery and assisting with general patients, explore the perspectives of SRMs and Managers regarding SRMs' contributions to small maternity units, and to seek recommendations for future research.

ETHICS

Ethical approval was gained from the Edith Cowan University Ethics Committee with the approval number REMS NO: 2020-02079-BULL. Approval from employment sites was not required because this project was about SRMs and Managers experiencing a workplace phenomenon, which may have occurred currently or in the past, and it was not specific to any workplace. Additionally, no information about the specific hospital was recorded in the data. All data gathered have been handled according to National Health and Medical Research Council [NHMRC] requirements.¹⁷

PARTICIPANTS

Facebook[®] and Facebook Messenger[®] were used for targeted recruitment of SRMs and Managers meeting the criteria of experience working in small maternity units where some general nursing was required. Social media is a successful medium for recruitment and is cost effective.¹⁸ The participants were from Western Australia, the Northern Territory and Queensland. Three SRMs and three Managers responded to the invitation and all participated. Prior to participation, each participant read the supplied participant information letter, was given the opportunity to ask questions, and returned a signed consent form.

The aim of this scoping study was to inform research questions for a future study, therefore a total of six participants was sought. Bradshaw and Kim confirm that small participant numbers are sufficient for qualitative projects where the sample size answers the research question, which occurred in this study.^{16,19}

DATA COLLECTION AND ANALYSIS

The principal researcher conducted the focus groups with one other researcher present. The focus groups were recorded, transcribed verbatim, and processed through first and second level coding. A process of thematic analysis as described by Braun and Clark was used to interpret the data.²⁰ ^(p 35) Each researcher was involved in the coding process with discussion leading to agreement on subcategories and categories. First level coding revealed eight subcategories based on the focus group questions (see Box 1).

- 1. SRMs and Managers of SRMs experiences of SRMs working shift work in a unit where they are required to contribute to care for general patients.
- 2. How SRMs have contributed to the care of general patients.
- 3. What participants understand SRMs' scope of practice to be in relation to non-midwifery work.
- 4. What challenges SRMs face working in a small maternity unit.
- 5. What participants say the highlights of SRMs working in a small maternity unit are.
- 6. Ways SRMs' contribution to caring for general patients can be supported or enhanced.
- 7. What participants say the highest priority issue impacting SRMs' working life is.
- 8. For the study exploring SRMs work experiences in small maternity units, what participants say the research questions should focus on.

BOX 1. SUBCATEGORIES DERIVED FROM FOCUS GROUP QUESTIONS

The subcategories were condensed to four major categories during second level coding. During analysis, care was taken to ensure the interpretation of the findings remained close to the original description of the phenomenon evident in the participants' responses.^{16,19,21}

RESULTS

Four major categories were derived from an analysis of the responses allocated to the eight subcategories. An explanation of the major categories follows.

1. THE SCOPE OF PRACTICE FOR ASSISTING WITH GENERAL NURSING PATIENTS IS NOT DEFINED

There was consensus among participants around the types of tasks SRMs could do to assist with care of general patients and SRMs were willing to assist with general patients but were clear they could not be responsible for the overall care of the patient, yet they felt this is what was being asked of them.

...things that fall within midwifery, so that's administering medications, doing observations, doing basic wound dressings (Manager 3)

Checking medication and helping with meal breaks on other wards ... answer call bells and obviously do things within my scope such as obs ... (SRM1)

I'll look after them under supervision of someone else but I'm not signing care plans or taking that sole responsibility anymore (SRM1)

I'm happy to assist, I'm just not happy to have responsibility for that patient (SRM2)

We're not taking responsibility, we're assisting ... we're just assisting, we're not taking the complete responsibility of the patient (SRM₃)

Conversely, Managers were clear the responsibility for the overall care lies with the registered nurse.

- ...and they would be working under the directive of the RN [registered nurse] on the general ward (Manager 2)
- ...to say, "but you are guided by an RN, you can always ask" (Manager 1)

Managers acknowledged SRMs were concerned about working outside their scope of practice and experienced resistance from SRMs to assist with care for general patients.

I think it's a little bit of a perception risk and overcoming that, "I'm not comfortable because it's not my scope of practice" (Manager 2)

And [SRMs] are quick to say, "that's not my scope of practice" but you can say "well, no, this is your scope of practice, you can do all these things" (Manager 3)

2. SRMS ARE KNOWN AS SKILLED AND CONFIDENT MIDWIVES WITH TRANSFERRABLE SKILLS TO CARE FOR GENERAL PATIENTS

Managers described the value of SRMs' midwifery practice and that SRMs had a role to play in caring for general patients by virtue of the interchangeable patient care skills they possess from being an educated health professional.

...they're a lot more confident maybe, with their midwifery skills in terms of they've had a lot more time just consolidating their midwifery skills whereas a lot of nurses, ... they'll work elsewhere, and they'll come and pop in and do a bit of midwifery...therefore they're not as confident with their midwifery skills (Manager 3)

...with our direct entries, they're very passionate and they're fantastic because predominantly that's what we're here for is maternity patients and women and they are very women focussed and centred and it's amazing. (Manager 1)

....then those lectures and things become very multidisciplinary and very interchangeable with those skills in terms of looking after nursing patients (Manager 2)

Managers highlighted that the specialist knowledge SRMs lack in caring for general patients can be mitigated by consulting with nurses or doctors who have accountability for the patient. In examples provided by SRMs of caring for general patients, these interchangeable skills were evident.

...when it comes to more specialist medications, just like anybody, if you're not sure of a drug that you are giving, and the side effects, the interactions, then you need to be speaking to your pharmacist, you need to be speaking to your medical officer and all of those sorts of things so that you get that understanding of what that means if you're not sure (Manager 2)

...specialling a mental health patient, a man who was in ED who was sedated...(SRM1)

she ... had been admitted for lower pelvic pain, and I just did basic obs and did her urine dipstick for pregnancy test etcetera, all that sort of thing so actually it gave me a lot more practice in my job than I realise (SRM₃)

SRMs indicated they were comfortable in their role as assistant to the registered nurse in the provision of care:

... registered nurse, so they're allocated the general patients but because being the second staff member, any assistance that they need, I am the staff member that's there to assist them (SRM2)

3. SRMS ENCOUNTER PRACTICAL, PROFESSIONAL, AND EMOTIONAL BARRIERS WHICH IMPACT ON THEIR EXPERIENCES WORKING IN SMALL MATERNITY UNITS

Managers and SRMs acknowledged practical barriers such as SRMs being redeployed to nursing work when midwifery activity is low. SRMs extrapolated this to include working in isolation when their dual registered colleague is redirected to nursing work and feeling compelled to do extra hours to assist their colleagues in times of staff shortages.

if the other wards, general ward, or particularly paeds or even ED [emergency department] have a higher acuity than us then my senior staff member, if they are dual registered, being taken to take a patient load on one of those wards which leaves me on my own. (SRM1)

I had a woman come in at 3 o'clock in the morning and birth a baby in the shower half an hour later. So, I was lucky that my afterhours manager [not a midwife] has done obstetric emergency training and she was capable of being the second midwife, she's good with neonatal resus, because my clinical midwife wouldn't have gotten from the other ward in time (SRM1)

... very low staffing levels... constant pressure to do overtime, feeling you're stuck, you can't go home if there's somebody in labour because there just isn't anyone else to call (SRM2)

Professionally, both SRMs and Managers acknowledged a stigma exists around not being a registered nurse as well as a midwife, and the midwife-only qualification is misunderstood by doctors, nurses and dual registered midwives. These views can lead to resistance from other professions to work with SRMs, disrespectful comments to SRMs, and the need to defend their qualification.

...because I'm working with obstetricians it was originally, getting around their perception of those direct entries... and having to dispel those [myths], "oh but she's just a direct entry; oh, I don't know about working with them" (Manager 1)

...definitely felt that stigma and felt belittled a little bit because I was, as they put it, "only going to be a midwife", and I was told straight out, no regional hospital would employ me (SRM1)

The challenge you do face is respect for being just a midwife (SRM₃)

I never, ever, ever, not to anybody say, "I'm just a midwife", because we have worked really hard to get where we are (SRM2)

SRMs identified emotional challenges specific to working in small maternity units. They described feelings of coercion and pressure to work outside their scope of practice in nursing work and feeling unsupported by hospital leaders to roster enough midwives when needed. ...so there's a bit of pressure with some of the ... older midwives [dual registrants] saying, you know, "it's easy, there's nothing to do, you can do it" ... and I always think, well the problem I have with that is that I don't know what I don't know. (SRM2)

.... under pressure to be on call more so, and it's struggling to get that approved unfortunately, by exec, because they have this wonderful saying that "we can't staff on maybes". (SRM1)

Compounding these experiences, the Managers reported a pervading "us and them" attitude between SRMs and their dual registered colleagues.

on the other side is that my RN, the dual, their main problem is that they do get an us and them attitude because it's like "well I'll have to have all the surgical patients again and you get to have the mid" (Manager 1)

4. SRMS AND MANAGERS RECOMMENDATIONS FOR FUTURE RESEARCH

Participants concurred that negative experiences encountered by SRMs should be further explored in future research. In addition, SRMs felt the focus group questions used in this study were appropriate to guide future research and Managers were interested in the views of SRMs that would empower them to work more broadly in small maternity units.

... they have amazing skills ... that can be transferrable and ... they're able to work with a registered nurse as well. How to empower them to be able to do that and be confident in that (Manager 1)

... that culture and the terminology around being direct entry midwives and what that means and how that can affect us (SRM1)

... what they think, or what they feel as to how we can get around some of those feelings if there is any negativity, ways of dealing with that (Manager 1)

DISCUSSION

The findings of this scoping study confirm much of what is anecdotally known about the experiences of SRMs working in small maternity units and identifies areas for further research into this area. The findings show there are misaligned views around SRMs' scope of practice for non-midwifery work. The NMBA defines scope of practice for both midwives and nurses as that which the "profession are educated, competent and authorised to perform" and they acknowledge there is overlap between professions.^{4 (p 14)} Commensurate with the NMBA scope of practice definition,⁴ this study shows examples of tasks SRMs appropriately carry out when assisting with general patients, however the perceptions of SRMs and Managers are not aligned concerning who takes overall responsibility for the care of the patient. SRMs' responses indicate they believe they are being asked to take responsibility for overall care, yet Managers' responses show they are aware SRMs must provide care to general patients under the supervision of a registered nurse.

The evolving nature of scope of practice has underpinned Australia's approach to governance. By introducing the DMF for nurses and midwives the NBMA provides for care to be carried out flexibly, be appropriately delegated, and scope expanded in a safe and consumer centred way.⁴ Although the DMF and other NMBA regulatory documents such as the Midwife Standards for Practice allow for expansion of scope, these documents firmly situate midwifery practice within midwifery, and nursing practice within nursing.²² Overlapping scope between midwifery and nursing is not prescribed, yet a relevant concern for SRMs caring for general patients is that they want to be sure they are not working outside their scope of practice and they are not being held responsible for care of general patients. This implies SRMs are aware of the ramifications of working outside their scope yet they may lack awareness of the DMF and its purpose to guide decisions about scope of practice and delegation of care between nurses and midwives.⁴ Clarity surrounding this anomaly may ensure SRMs feel more comfortable in assisting with care of general patients, which is important because as this study showed, the transferrable care skills SRMs possess are valued by Managers.

In terms of value to a health service, the phenomenon of SRMs assisting with general patients draws comparisons to the role of the Assistant in Nursing (AIN). Duffield explain that AINs are an unregulated workforce, their training and education for the role is inconsistent, and there is evidence for poorer outcomes where an AIN provides care instead of a nurse.²³ It would be useful to see how outcomes compare when SRMs provide care for general patients because midwifery is a regulated profession educated through a nationally accredited higher education course.²⁴ Duffield explains one of the problems having AINs working in nursing is the lack of a clear strategy for implementation leading to confusion as to how they fit into the scheme of nursing care.²³ This point parallels the SRMs' experience of being expected to contribute to care of general patients. The value to the health service in terms of cost savings of an SRM who is already rostered on the shift, and who can provide care under supervision instead of bringing another nurse onto the shift at an extra cost, needs additional scrutiny because patient safety should never be compromised by having inappropriate staff to provide care.4

The perspectives of both SRMs and Managers working in small maternity units revealed SRMs experience significant workplace challenges. SRMs explained that midwifery shortages are a significant problem, concurring with reports of midwifery vacancies in rural areas,⁵ and they feel compelled to work extra hours to support their colleagues. Redeployment of dual registrants to nursing work has been revealed by this study to impact SRMs' experiences. Evidence suggests that when dual registered midwives are redeployed, they miss opportunities to consolidate their midwifery practice leading to loss of confidence to practice midwifery and this point was confirmed by Managers in this study.^{8,11,25,26} However, SRMs face a double impact of redeployment. Either the SRMs are redeployed to nursing work and feel concerned about working outside their scope, or their dual registered colleague is redeployed leaving them working in isolation. Examples given by SRMs in this study suggest that the effect of redeployment of dual registrants may result in suboptimal care for maternity patients, a concern identified in the literature.^{10,26}

Compounding work stressors for SRMs is the professional stigma they face for not also being a registered nurse. Both groups acknowledged the midwife-only qualification can be misunderstood by doctors and nurses, and SRMs experience verbal challenges to their qualification causing them to feel disrespected in the workplace. Managers also described a division between the dual registered midwives and SRMs, likened to an "us and them" attitude, where the dual registrants felt disadvantaged because the SRMs are always allocated midwifery patients while the dual registrants are allocated general patients. Both concepts of disrespect and an "us and them" attitude have been implicated in experiences of workplace bullying, effects of which can lead to sick leave and attrition.²⁷ The potential for these issues to compound midwifery shortages in small maternity units warrants further investigation.

Strengths of this scoping study are that it is unique in looking at the experiences and contributions of SRMs in small maternity units and contributes to existing literature about the midwifery workforce in rural and regional centres. This study also highlights important areas for further research. However, this study is limited in that the views of dual registered midwives about who retains responsibility for overall care of the general patient were not sought, nor their views on supervising SRMs in caring for general patients.

CONCLUSION

This scoping study provides useful recommendations for future research into the experiences of SRMs working in small maternity units in Australia. Findings indicate the perspectives of SRMs and Managers are similar in that SRMs provide a valuable contribution to small maternity units through their midwifery practice and in their role of assisting with general patients when redeployed. However, there is a difference of perspectives about who retains responsibility for overall care of general patients cared for by SRMs. Eliciting the views of dual registrants who work with SRMs may clarify confusion around who is responsible for delegated care and may have provided further insights for future research. Significant workplace challenges faced by SRMs because of their midwife-only qualification have been recommended by participants for exploration in future research, along with scope of practice for assisting with general patients.

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Impact of non-invasive ventilation and non-medical caregiver presence on nursing workload – an observational study

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ABSTRACT

Objective: To find out if non-invasive ventilation (NIV) as a ventilation modality increases the burden on nursing personnel and give suggestions how the presence of non-medical caregivers in an ICU with an extreme staff shortage can reduce nursing workload during mechanical ventilation.

Background: Although the European Union offers good quality healthcare, there are middle-income countries in the alliance that suffer from nursing staff shortage. For example, Bulgaria needs two times more nurses than it has now to meet the needs of its healthcare system. This calls for strategies that reduce nursing workload as much as possible. There is a common perception that NIV is more time-consuming for nurses compared to invasive mechanical ventilation (IMV) but only a few studies discuss the matter and none of them are settled in the unique environment where medical and non-medical caregivers provide direct patient care as a team.

Study design and methods: This is an observational study conducted in a specialised respiratory ICU with trained nurses, physiotherapists, and non-medical caregivers in a university hospital in Bulgaria. Ninety adult patients (43 on NIV and 47 on IMV) with acute respiratory failure that were on mechanical ventilation for at least five days were

included. Nursing workload was measured via the Nursing Activities Score (NAS). Average and daily NAS were compared between groups. Then individual components of the score were analysed to determine which activities have the greatest impact on nursing workload.

Results: Average $(39.72 \pm 6.35 \text{ vs} 46.08 \pm 5,66, p< 0.001)$ and daily NAS for the first five days of mechanical ventilation and was significantly higher in the IMV group. There was a substantial drop of nurse workload with time in both groups, more significant for the patients who ventilated invasively. It occurred on the second day in both groups (NIV: p=0.005, 95%CI: 0.88-4.52; IMV: (p<0,001, 95%CI: 2.72-7.03). NIV patients required more time for monitoring but less for hygiene, fluid administration and nutrition. IMV patients also required specific care for their artificial airway and took more time for lung function improvement procedures.

Conclusion: In a setting where direct patient care is provided by both formally trained nurses and non-medical caregivers IMV was associated with a higher nursing workload than NIV.

Implications for research, policy, and practice: In a situation with an extreme staff shortage some of the non-medical nursing activities involving patients on NIV can be potentially transferred to trained non-medical caregivers.

What is already known about the topic?

- According to the World Health Organization in 2018 there was a nurse shortage of around six million and by 2030 it will increase to 36 million. This negative trend is most prominent in low- and middle-income countries.
- There is a common perception that NIV is more time-consuming for nurses compared to IMV but only a few research groups address this matter.
- NIV may require additional time from nursing personnel mainly because of problems with mask fit, skin breakdown and maintenance of an optimal position in bed. NIV is more time-consuming in the first 48 h but then becomes much less demanding.

What this paper adds

- This is the first study where the ICU nursing workload during NIV and IMV is compared in a setting where non-medical caregivers have a substantial role in direct patient care.
- In a setting where direct patient care is provided by both formally trained nurses and non-medical caregivers IMV was associated with a higher nursing workload than NIV.
- In a situation with an extreme staff shortage some of the non-medical nursing activities involving patients on NIV (like help with self-hygiene, food, and water intake) can be potentially transferred to trained non-medical caregivers under supervision.

Keywords: Nursing staff; ICU; intensive care nursing; critical care nursing; mechanical ventilation; non-invasive ventilation

BACKGROUND

Nurses are the foundation of all modern healthcare systems. They are the ones most involved in direct patient care and the requirements towards their education and competence are constantly increasing. According to the World Health Organization in 2018 there was a nurse shortage of around six million and by 2030 it will increase to 36 million. This negative trend is most prominent in low- and middle-income countries.¹

Although the European Union has good quality of healthcare overall, there are middle-income countries in the alliance that suffer from an extreme nursing staff shortage. Because highincome countries offer better working and living conditions many nurses from Eastern Europe choose to practice in Central and Western Europe.² According to the most recent data from The National Statistical Institute of Bulgaria (an Eastern European middle-income country) only 17,179 doctors and 18,352 nurses work in hospitals and there is no statistical data on how much of them are in intensive care units (ICU).³

As you can see from these numbers, the doctor:nurse ratio in Bulgaria is 1.2.4which requires the adoption of strategic documents with measures to overcome the negative tendenciesThe solution of the existing and expected and future shortage of health professionals is essential to protect the health of the population globally. In this regard, the international migration of health professionals and the shortage of skilled health workforce, as well as the growing disparity between population needs, health care supply and demand, is a topical problem for health systems.The mobility and shortage of highly qualified specialists are characteristic of the top of the pyramid. There is a significant shortage in the medium and low levels of the pyramid of healthcare professionals and some non-medical majors. In both cases, there are internal and external imbalances, most often caused by increased migration to economic centers in the country or countries with a high standard of living. A severe shortage of nursing professionals -Bulgaria has the second-lowest ratio of nurses to population and the lowest nurse to physician ratio among all member states. (1:1,2 compared to 1:2,3 This is very low compared to the 2.8 in the UK, 3.0 in Germany and 4.0 in Switzerland.⁵ The nurse:patient ratio in ICUs in Bulgaria is highly alarming - sometimes 1:5 or 1:8 even before COVID (no official statistics and no national recommendations available) compared to the standard 1:2 or 1:1 in high income countries. The demographic characteristics of Bulgarian nurses are also unfavorable. Their mean age is over 50 years. 32.7% of nurses working in the Bulgarian healthcare system are between 45 and 54 years of age and another 26.2% are between 55 and 64.6

Due to the nursing staff shortage in Bulgaria there are a lot of non-medical caregivers working in hospitals. They are people of non-medical background that are hired to clean the floors, toilets, beds, surfaces and equipment and to help mobile patients go to the toilet, X-ray etc. They also distribute the food and assist with the feeding of patients that are not on IMV. They receive some training by nurses locally but are not obligated to do so. With practice they learn a lot and end up helping the nurses with minor tasks that do not involve needles or specific equipment. After several years on the job a significant amount of them start attending nursing school. Some of them are medical students that want to get clinical experience and are highly motivated to learn as much as possible from the nursing personnel. There is a common perception that non-invasive ventilation (NIV) is more time-consuming for nurses compared to invasive mechanical ventilation (IMV) but only a few research groups address this matter.^{7–13} NIV may require additional time from the nursing personnel mainly because of problems with mask fit, skin breakdown and maintenance of an optimal position in bed.¹³ It appears that NIV is more time-consuming (not necessarily more than IMV) in the first 48 h of ventilation but then becomes much less demanding.⁸

This study aims to investigate the impact of ventilation modality on nursing workload in a situation with an extreme nursing staff shortage.

STUDY DESIGN AND METHODS

This is an observational single centre study conducted in a specialised pulmonology and thoracic surgery ICU in a university hospital in Bulgaria. It has seven surgical and 12 medical beds with a maximal nurse:patient ratio when all beds are occupied of 1:6. In addition there are two physiotherapists during the day shift that attend most of the patient mobilisation, and two non-medical caregivers both during the day and night shift. Two physicians are present in the ICU – one in the surgical and one in the medical division of the ICU. A senior intensive care physician is also available during the day shift.

Data was collected from January 2017 to December 2020. Ninety adult patients with various etiology of acute respiratory failure (COPD, obesity hypoventilation syndrome, bacterial and viral pneumonia, pulmonary fibrosis, mediastinitis, diaphragmatic dysfunction, myasthenia gravis and a variety of neuromuscular diseases) that were on mechanical ventilation for at least five days were included in the study. Forty three of them were on NIV and 47 on IMV.

In the NIV group there were only patients on true respiratory support. They were either on Pressure Support, Pressure Control Ventilation, Average Volume Assured Pressure Support or Intelligent Volume Assured Pressure Support. CPAP was excluded as a non-invasive ventilatory mode because it is not ventilation per se and cannot be compared to any ventilatory mode that will be applied at the beginning of invasive mechanical ventilation. IMV patients were either on Volume Control Ventilation, Pressure Control Ventilation or Pressure Regulated Volume Control.

NIV patients were not sedated in any manner. IMV patients were on a continuous midazolam infusion and bolus doses of a long-acting muscle relaxant were applied when necessary (in cases of patient-ventilator asynchrony). Cessation of sedation and spontaneous awakening trials were attempted only when the oxygenation showed improvement and remained stable for at least 24 hours. Nursing workload was measured with the Nursing Activities Score (NAS). It is one of the most widely accepted methods for nurse workload measurement. It includes 23 activities that are scored according to the average time each one of them requires to be fulfilled. It is stated that it represents 81% of nursing activities. NAS is commonly used in studies in the field of intensive care because its biggest advantage is that it is not dependent on the severity of the pathology.¹⁴

The NAS was measured and recorded for every patient individually at an interval of 24h (every two nursing shifts) during the first five days of mechanical ventilation. The NAS score was computed based on all of the items in the score as described in the official NAS score paper by Miranda et al.¹⁴ The daily NAS score values with their corresponding nursing equivalents were compared within (as a dynamic measure for nursing workload) and between groups (day by day comparison). Then an average NAS value and average nursing equivalent were computed from these five daily NAS values and daily nursing equivalents for each individual patient. These average numbers were compared between groups in order to give a full perception of the average nursing workload during the first five days of mechanical ventilation. Then individual components of the NAS score were analysed to determine which activities have the greatest impact on nursing workload.

Data was processed and statistically analysed with IBM SPSS package v.25. Descriptive statistics were calculated for continuous variables. Student's t-test was used for unpaired continuous variables, with chi-square and Fisher's exact tests (where chi-square was not suitable) for categorical variables. One-way repeated measures ANOVA was performed on paired continuous variables. As some of the data was nonparametric, a two-step transformation to normality was used in order to transform it into parametric data. P < 0.05 was considered statistically significant.

RESULTS

The study included 43 patients on NIV and 47 on IMV. Their mean age, gender distribution and time spent on mechanical ventilation did not differ significantly between groups, but patients on IMV had a longer ICU stay than those on NIV (Table 1).

During the study a total of 450 individual NAS measurements (215 for the NIV and 235 for the IMV group) were recorded. After conducting a statistical analysis, as described in the Study design and Methods section, it was discovered that the average NAS (39.72 ± 6.35 vs 46.08 ± 5.66 , p < 0.001) and nursing equivalents (0.4 ± 0.06 vs 0.46 ± 0.06 , p < 0.001) for the first five days of mechanical ventilation were both significantly higher in the IMV compared to the NIV group. The daily NAS was also higher in the IMV group for every single day as well as the corresponding nursing equivalents (Table 2).

TABLE 1: SOCIODEMOGRAPHIC DATA

	NIV	IMV	р
Age	60.70 ± 9.36	56.12 ± 16.16	0.11
Gender	Male: 26 (49.06%)	Male: 17 (45.95%)	0.77
	Female: 27 (50.94%)	Female: 20 (54.05%)	
Days on ventilation	10.7 ± 6.68	16.89 ± 14.55	0.257
Days in ICU	15.67 ± 11.5	25.24 ± 16.56	0.003

TABLE 2: NAS WITH THE CORRESPONDING NURSING EQUIVALENTS ACCORDING TO VENTILATION MODE

	NIV	IMV	р
Nursing Activities Score			
NAS on day 1	41.97 ± 5.63	50.14 ± 8.71	< 0.001
NAS on day 2	39.70 ± 7.69	44.55 ± 6.69	0.002
NAS on day 3	39.96 ± 7.38	44.57 ± 6.97	0.003
NAS on day 4	39.05 ± 7.94	44.63 ± 8.21	0.002
NAS on day 5	38.01 ± 7.68	46.57 ± 6.93	< 0.001
Average NAS	39.72 ± 6.35	46.08 ± 5.66	< 0.001
Paired ANOVA p comparing the trend in daily NAS	0.001	< 0.001	
Nursing Equivalents			
Nursing Equivalents on day 1	0.42 ± 0.06	0.50 ± 0.09	< 0.001
Nursing Equivalents on day 2	0.4 ± 0.08	0.47 ± 0.07	0.002
Nursing Equivalents on day 3	0.4 ± 0.08	0.45 ± 0.07	0.004
Nursing Equivalents on day 4	0.39 ± 0.09	0.45 ± 0.08	0.003
Nursing Equivalents on day 5	0.38 ± 0.08	0.47 ± 0.07	< 0.001
Average Nursing Equivalents	0.4 ± 0.06	0.46 ± 0.06	< 0.001

When compared the scores inside of the groups as series of measurements a drop of nursing workload with time in both groups was revealed. A more significant difference was noted in the set of patients that were ventilated invasively (p for the NIV group – 0.01 and <0.001 for the IMV group). After conduction of a post-hoc analysis we discovered that the significant drop of NAS occurred on the second day in both groups (NIV: p=0.005, 95%CI: 0.88-4.52; IMV: (p<0.001, 95%CI: 2.72-7.03, Figure 1 and 2). A slight increase of NAS was observed on day 5 in the IMV group, but the difference did not reach statistical significance (p=0.12, 95%CI: -4.43-0.51).

After conducting a series of statistical tests comparing the impact of individual nursing activities, it was discovered that NIV patients required more time for monitoring but less for hygiene needs attendance, fluid administration, enteral and parenteral nutrition. IMV patients also required specific care for their artificial airway and took more time for lung function improvement procedures, such as, thorax physiotherapy, incentive spirometry, inhalation therapy and especially intratracheal suctioning. Also, in the IMV group more specific procedures inside the ICU were performed on days one, four and five. Surprisingly, there was no difference between the nurse assistance needed by physiotherapists for mobilisation of both patient categories regardless of the fact that some of them were extremely overweight, both physiotherapists at the time of data collection were female and there is no equipment in this particular ICU facilitating rehabilitation or patient movement/lifting of any sort.

Part of the results from the analysis of the impact of individual nursing activities on the daily NAS are presented in Table 3. Omitted items from the NAS score were insignificant for this report but were included in the computation of the scores. They are not reported here because they either included 100% or 0% of both groups for the whole study period and statistical analysis could not be performed on them (e.g. none of the patients in the whole study had a pulmonary arterial catheter), so in the domain of Cardiovascular support ¹⁴. Left atrium monitoring: pulmonary artery catheter, 0% of both groups received points for all five days. A complete version of Table 3 with the omitted items is presented in Supplement 1, Appendix 1. ____

TABLE 3: NAS ANALYSIS BY ITEM - ONLY DISCUSSION-WORTHY COMPONENTS INCLUDED N (%)

		Day 1			Day 2			Day 3			Day 4			Day 5	
	NIV	IMV	р	NIV	IMV	р	NIV	IMV	р	NIV	IMV	р	NIV	IMV	р
1. Monitoring and titration	1. Monitoring and titration														
1a. Hourly vital signs, regular registration of fluid balance	0 (0)	20 (42.6)	< 0.001	0 (0)	40 (85.1)	< 0.001	0 (0)	39 (83)	< 0.001	0 (0)	38 (80.9)	< 0.001	1 (23.3)	38 (80.9)	< 0.001
1b. Present at bedside and continuous observation or active for 2 h or more	10 (23.3)	18 (38.3)	0.124	21 (48.8)	6 (12.8)	< 0.001	30 (69.8)	6 (12.8)	< 0.001	34 (79.1)	7 (14.9)	< 0.001	32 (74.4)	7 (14.9)	< 0.001
1c. Present at bedside and active for 4 h or more	33 (76.7)	9 (19.1)	< 0.001	22 (51.2)	1 (2.1)	< 0.001	14 (32.6)	2 (4.3)	< 0.001	9 (20.9)	2 (4.3)	0.016	10 (23.3)	2 (4.3)	0.008
2. Laboratory, biochemical and microbiological investigations	33 (76.7)	37 (78,7)	0.822	16 (37.2)	32 (68.1)	0.003	21 (48.8)	33 (70.2)	0.039	22 (51.2)	26 (55.3)	0.693	20 (46.5)	34 (72.3)	0.012
4. Hygiene procedures															
4a. Performing usual hygiene procedures	6 (14)	42 (89.4)	< 0.001	8 (18.6)	42 (89.4)	< 0.001	9 (20.9)	40 (85.1)	< 0.001	11 (25.6)	39 (83)	< 0.001	9 (20.9)	35 (74.5)	< 0.001
4b. Performance of hygiene procedures took > 2 h	0 (0)	6 (12.8)	0.15	2 (4.7)	7 (7.8)	0.289	3 (7)	7 (14.9)	0.233	2 (4.7)	8 (17)	0.062	2 (4.7)	12 (25.5)	0.006
5. Care of drains	0 (0)	5 (10.6)	0.57	0 (0)	4 (8.5)	0.118	0 (0)	5 (10.6)	0.057	0 (0)	4 (8.5)	0.118	0 (0)	5 (10.6)	0.057
6. Mobilization and positioning															
6a. Performing procedure(s) up to three times per 24 h	1 (2.3)	1 (2.1)	0.949	2 (4.7)	1 (2.1)	0.5	6 (14)	3 (6.4)	0.232	6 (14)	4 (8.5)	0.412	5 (11.6)	4 (8.5)	0.622
6b. Performing procedure(s) more frequently than three times per 24 h, or with two nurses	0 (0)	0 (0)	*	0 (0)	0 (0)	*	2 (4.7)	0 (0)	0.135	1 (2.3)	0 (0)	0.293	1 (23.3)	0 (0)	0.293
7. Support and care of relatives and p	atient, incl	uding proce	dures such	as telepho	ne calls, int	erviews, co	unseling								
7a. Support and care of either relatives or patient for about 1 h in any shift	4 (9.3)	7 (14.9)	0.419	4 (9.3)	5 (10.6)	1.000	3 (7)	3 (6.4)	1.000	3 (7)	4 (8.5)	1.000	4 (9.3)	4 (8.5)	1.000
7b. Support and care of either relatives or patient for 3 h or more in any shift	0 (0)	1 (1.1)	1.000	0 (0)	1 (1.1)	1.000	0 (0)	1 (1.1)	1.000	0 (0)	1 (1.1)	1.000	0 (0)	0 (0)	*
Ventilatory support															
10. Care of artificial airways: ETT or tracheostomy cannula	0 (0)	47 (100)	< 0.001	0 (0)	47 (100)	< 0.001	0 (0)	47 (100)	< 0.001	0 (0)	47 (100)	< 0.001	0 (0)	47 (100)	< 0.001
11. Treatment for improving lung function	17 (39.5)	47 (100)	< 0.001	16 (37.2)	47 (100)	< 0.001	16 (37.2)	47 (100)	< 0.001	18 (41.9)	47 (100)	< 0.001	18 (41.9)	47 (100)	< 0.001

TABLE 3: NAS ANALYSIS BY ITEM - ONLY DISCUSSION-WORTHY COMPONENTS INCLUDED N (%) (CONTINUED)

		Day 1			Day 2			Day 3			Day 4			Day 5	
	NIV	IMV	р	NIV	IMV	р	NIV	IMV	р	NIV	IMV	р	NIV	IMV	р
Cardiovascular support															
12. Vasoactive medication	11 (25.6)	11 (23.4)	0.81	12 (27.9)	14 (29.8)	0.844	10 (23.3)	13 (27.7)	0.632	9 (20.9)	17 (36.2)	0.111	5 (11.6)	12 (25.5)	0.092
13. Fluid administration > 3 L/m2/day	4 (9.3)	20 (42.6)	< 0.001	7 (16.3)	29 (61.7)	< 0.001	8 (18.6)	25 (53.2)	0.001	7 (16.3)	23 (48.9)	0.001	6 (14)	22 (46.8)	0.001
Metabolic support															
19. Treatment of complicated metabolic acidosis/alkalosis	3 (7)	5 (10.6)	0.716	0 (0)	2 (4.3)	0.495	1 (2.3)	0 (0)	0.478	1 (2.3)	0 (0)	0.478	0 (0)	0 (0)	*
20. Intravenous hyperalimentation	0 (0)	5 (5.6)	0.028	0 (0)	9 (19.1)	0.002	1 (2.3)	7 (14.9)	0.036	2 (4.7)	7 (14.9)	0.106	2 (4.7)	8 (17)	0.62
21. Enteral feeding	0 (0)	18 (38.3)	< 0.001	1 (2.3)	36 (76.6)	< 0.001	1 (2.3)	37 (78.7)	< 0.001	3 (7)	38 (80.9)	< 0.001	2 (4.7)	41 (87.2)	< 0.001
Specific interventions											· · · ·				
22. Specific ICU interventions	2 (4.7)	47 (100)	< 0.001	2 (4.7)	7 (14.9)	0.106	1 (2.3)	4 (8.5)	0.201	1 (2.3)	11 (23.4)	0.003	0 (0)	8 (17)	0.005





FIGURE 2: TREND OF THE DAILY NAS IN THE NIV GROUP

DISCUSSION

After publication of the first study that compared the nursing workload between patients on NIV and IMV a statement that NIV was more burdensome on the nursing personnel spread widely across ICUs.⁷ On the surface this assumption may seem true because most of the patients on NIV are fully conscious, scared and often have a lot of complaints regarding the mask and headgear fit, maintenance of an optimal position in bed, feeding problems, difficulty communicating, disturbed sleep, and feeling of loneliness.¹³ A significant amount of NIV patients need sedation on order to improve mask and ventilation tolerance, otherwise, nurses will spend extra time at the patient's bedside in order to fix these problems constantly.¹⁵

Although we measured an increased time for monitoring and assistance of the patients during NIV, the overall NAS in NIV patients is lower compared to IMV because several other factors are compensating. Looking at nursing workload as a whole, not just at this one component, different authors have stated that NIV is equally,^{8,11} or sometimes less burdensome than IMV for the nursing staff.^{10,12}

As is evident by the analysis of individual items of the NAS, NIV patients needed less assistance by nurses with their hygiene needs, food and water intake, because these duties were directed towards non-medical caregivers. Also, NIV patients do not have an artificial airway that must be cared for and do not need some specific ICU procedures like endotracheal intubation or tracheostomy placement. In a situation with an insufficient number of nurses supervised, non-medical caregivers can take care of most of the needs of compliant NIV patients, without the direct involvement of a nurse or a physician.

In a situation where thousands of nurses are needed and none can be trained rapidly, a solution must be found in order to maintain an acceptable level of patient care. Hiring non-medical caregivers and recruiting medical students can potentially take some of the burden off the shoulders of nurses. Studies on the role of non-medical caregivers in inhospital patient care are limited but we were able to discover only one publication regarding an in-hospital non-medical caregiver program and it was based in an operating theatre¹⁶ Therefore, further research is needed on the potential role of non-medical caregivers on patient safety, nurse workload, and quality of care.

The most concerning matter with the suggestion of inclusion of non-medical personnel in direct patient care is patient safety. Without a properly trained caregiver there is a probability of infliction of involuntary damage or omission of important symptoms because of lack of knowledge. Such a situation is realistic but research shows that increased workload on healthcare personnel can also be a cause of an increased frequency of medication errors and adverse events.¹⁷ In fact, formal medical education is not a guarantee for a higher patient safety culture because many medical schools do not offer classes on patient safety.¹⁸ Of course, there is no doubt that there is some form of patient safety education in nursing schools that are not officially labeled as such. Therefore, students might not pay enough attention to it. This is why we think that patient safety should be implemented officially as part of each clinical nursing class and be included in the examination curriculums.

One limitation of our study is the fact that we did not test if severity of the disease in our patient cohort had an impact on the NAS. We did not do it because in the original article where NAS as first described, the authors state that the score is independent from the severity of the pathology. On the other hand, later studies discovered that surgical diagnosis, emergency, trauma, COVID-19, high APACHE scores and a longer hospital stay tend to increase the NAS.^{19–22}

Although this could be true, we wanted to make a comparison only of the ventilation modality as a sole factor for nurse workload increase or decrease. Because of the same reason we included both patients with hypoxemic, as well as with hypercapnic respiratory failure. In a lot of ICUs they do not use NIV for severe hypoxemic respiratory failure because of high failure rates,²³ but in our facility we conduct a NIV trial for all compliant patients that fulfill a set of criteria unrelated to the level of hypoxemia. As future research we may do an analysis on different patient related factors on nursing workload on a new set of patients with acute respiratory failure either only in NIV or IMV in order to exclude the bias of different ventilatory modalities.

Another limitation of the study is the practice of our unit to avoid sedation of patients on NIV. This has some advantages and some disadvantages. The most prominent advantage is the mobility of the patient, so help is provided exclusively to female nursing personnel with hygiene tasks that involve heavy lifting. Also, the risk of aspiration is minimised and the patient can alert the team if something does not feel right. On the other hand, if a fully conscious patient experiences a certain level of discomfort with NIVthen more attention from the nurses mainly for mask repositioning and assistance with eating is required. If you examine the data from Table 3, you can see that our nurses do in fact spend a lot of time at the bedside of NIV patients monitoring and ensuring compliance. Studies by other research groups also agree with this finding.^{8,9,13} If patients on NIV were sedated, the nursing workforce would have been lower.

CONCLUSION

In a setting where direct patient care is provided by both formally trained nurses and non-medical caregivers, IMV was associated with a higher nursing workload than NIV. Patients on NIV tend to need more frequent monitoring but less assistance by nurses with their hygiene and nutritional needs, as they do not have an artificial airway that must be cared for and do not need some specific medical procedures at all.

IMPLICATIONS FOR RESEARCH, POLICY, AND PRACTICE

In a situation with an extreme staff shortage, some of the non-medical nursing activities involving patients on NIV can be potentially transferred to trained non-medical caregivers under supervision. Further research is needed on the impact of these non-medical caregivers on patient safety and quality of care.

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Reflective Practice Groups for nurses: perceptions and preferences, considerations and cautions

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ABSTRACT

Objective: Study 5, from a series of six, examines the influence of attendance rates and personal attendance preferences on the effectiveness of Reflective Practice Groups (RPGs). It also explores participant perceptions regarding benefits and barriers of RPG.

This article presents the current study in context of associated research and attempts to synthesise the collective findings.

Background: Nursing can be associated with burnout, secondary traumatic stress (STS) and compassion fatigue. RPGs might help mitigate these negative impacts.

Study Design/Methods: This cross-sectional study surveyed a cohort of 190 nurses (88% female) using validated scales to assess professional quality of life (ProQOL), job satisfaction (JS) and psychological distress, alongside perceived effectiveness of RPG, attendance rates and preferences. Open-ended questions explored perceived barriers and benefits to attendance.

Results: Nurses who attended less RPGs reported higher STS. Those who preferred to go more frequently also reported higher STS however level of attendance and personal preference did not affect each other. Nurses attending 'as often as groups are run' also rated the effectiveness of RPG more highly. Other outcome measures were not significant for either variable. Perceived benefits of RPG included sharing, support, cohesiveness, skills development and facilitatory alliance. Barriers included workloads, rostering, time constraints and discomfort in a group setting.

Discussion: The majority of nurses reported higher STS, preferred to attend RPGs more frequently, and rated them as more effective. Nurses who attended more RPGs reported significantly lower STS, indicating a restorative benefit. The lack of significance for Compassion Satisfaction (CS) ratings contrasted with findings of earlier studies. Logistical issues and discomfort in groups were barriers to RPG attendance. Perceived benefits related to personal and workgroup development.

Alongside findings from the overarching project, results indicate a positive correlation between effective RPGs, personal and job resources, and aspects of ProQOL. **Conclusion:** Nurses with higher STS find RPGs more useful and want to attend more often. Higher RPG attendance is associated with lower STS.

Voluntary attendance, facilitatory alliance, promotion of psychological safety, and organisational support are key considerations.

In context of the overarching project, RPG attendance has been positively correlated with various aspects of ProQOL, personal and job resources. Cause and effect are still not clear and further research is required.

What is already known about the topic?

- RPGs are positively correlated with personal and job resources and CS.
- Barriers to reflecting in RPGs include workplace logistical issues.

What this paper adds:

- Greater RPG attendance is associated with lower STS.
- Nurses with higher STS prefer to attend more often and find RPGs more useful.
- Discomfort in a group setting is an important consideration and should be addressed through effective facilitation and management of group process to promote psychological safety.
- RPGs have now been positively associated with a greater number of personal resources, job resources and aspects ProQOL.

Keywords: Nursing, reflective practice groups, secondary traumatic stress

INTRODUCTION

Nursing can be rewarding but also stressful. Professional quality of life (ProQOL) is a concept that defines professional quality of life as three components, compassion satisfaction (CS), burnout and Secondary Traumatic Stress (STS),¹ that determine wellbeing in care-providers.^{2,3} The Job Demands-Resource (JD-R) model provides a further framework for understanding how the structure of jobs can either contribute to, or detract from, ProQOL.⁴ Job demands are aspects of work that require sustained physical and/ or psychological effort. Excessive job demands can lead to burnout and STS, with the latter term used to describe the effect of significant and ongoing exposure to the trauma and suffering of others.¹ In its severest form, STS may involve symptoms similar to those of post-traumatic stress and can be of particular concern in helping professions, such as nursing.

Job resources can buffer nurses against the effects of such job demands by providing support, promoting professional and personal growth, fostering work engagement, and increasing CS.⁴ Examples of job resources include supportive work environments, staff wellbeing programs and forms of clinical supervision, including RPGs.⁵⁻⁸ Clinical supervision may mitigate job demands for nurses by providing support, promoting critical thinking, assisting in the processing of workplace issues,^{9,10} improving work practices and safety, and encouraging self-efficacy.¹¹ Reflective practice groups have developed as a form of group clinical supervision where nurses come together in a group setting to share work related experiences and issues with the aid of a trained facilitator.^{6,12} Facilitators in this RPG model undertake an 'apprenticeship' training program that includes an introductory workshop, 'in-group' training with an experienced facilitator, and monthly facilitator supervision sessions.

Schon proposed that good practitioners are not just skilful, but reflective and intuitive.¹³ Meaningful reflection involves both theoretical understanding and wisdom gained from experience, so RPGs value both in order to help nurses bridge the theory practice gap,¹⁴ explore ways of improving care, and promote professional and personal growth.¹⁵ The RPG model used in this study utilises various principles of reflection rather than a specific model. The groups are process-focused and draw on the clinical narrative brought by participants to explore the "what's" "why's" and "how's". The RPG model also seeks to integrate humanistic and psychodynamic frameworks that promote awareness and understanding of patterns of human behaviour.^{6,12,16} A focus on the intersubjective, interpersonal, and intrapersonal aspects of practice seeks to empower nurses, increase compassion satisfaction, and encourage holistic patient care.

Previous research has indicated some positive outcomes for nurses attending RPGs; including improved work group cohesiveness, decreased anxiety, increased CS,⁵ normative shared learning,^{17,18} increased job confidence,^{19,20} and stress management.¹⁰ Previous findings also indicate that the group processes involved in RPGs, when enhanced by effective facilitation, can help participants to feel validated and empowered,^{8,19} increase job resources of self-efficacy, autonomy and skill discretion, and provide social support to buffer against job demands.^{5,21-23} These positive impacts seem to be related to both a 'dose effect' and a 'potency effect'^{5,21}; i.e. the more RPGs attended, and the more effective the facilitation and group processes, the greater the benefits.

Barriers to effective reflection in groups may relate to preexisting unhealthy dynamics within the work unit,²⁴ cultural and practical issues within the broader organisational context,^{7,25} a lack of trust within the group, differences in communication and learning styles, and fear of judgement by peers.²⁶ Other research has indicated that participating in RPGs can be uncomfortable for participants who feel vulnerable opening up in front of peers, or experience social anxiety in groups.^{19,27} A study of RPG for psychologists found that while almost three quarters of those surveyed reported positive impacts and professional development from RPG attendance, just under half also reported finding the groups uncomfortable or distressing at times; some reporting a preference for other forms of reflective activities, such as mindful self-reflection and journaling.²⁷ Other authors note that meaningful reflection can often be uncomfortable, as practitioners critically explore and challenge understandings, oversights, mistakes, and methods of practice.^{28,29} In fact, Traynor³⁰ suggests that nurses may resist reflecting on aspects of their role because they may find a kind of perverse benefit from assuming a role of "victimisation and powerlessness", thereby becoming complicit in bad practice.

Attendance at RPG in the current study was voluntary and not always consistent, due to high workloads and changing rosters. While more consistent attendance might assist the development of cohesion and psychological safety within RPG,^{8,31} it is important that participants do not feel pressured or coerced to attend. There is little, if any, research on how individual preferences for attendance might affect nurses' perception of the process and benefits of RPG. The current study attempts to explore these considerations with the hope of integrating the results with those of associated studies to provide a greater understanding of the variables and considerations relevant to the efficacy of RPG as a form of group clinical supervision.

METHODOLOGY

INTERVENTION

The RPGs in this study were 6o-minute fortnightly or monthly sessions held for nurses in clinical roles from a range of specialty areas. Sessions occurred in various meeting rooms within the hospital. Facilitators were all nurses or allied health workers who had trained in the RPG model described above but with varying degrees of experience. Sessions occurred during shift overlap times to best enable voluntary attendance. The size of the RPGs ranged from four to 12 nurses. The RPG members were enrolled and registered nurses from a range of clinical areas including but not limited to surgical, medical, mental health, oncology, intensive care, and emergency.

ETHICS

Ethical approval was provided by The Prince Charles Hospital HREC (HREC/18/QPCH/132), with site specific approval from the Sunshine Coast Hospital and Health Services (SSA/18/QNB/39).

STUDY AIMS AND HYPOTHESES

The aims of this mixed method study were to compare and explore the effect of RPG on ProQOL in relation to levels of attendance and preferences for attendance, and to explore perceived benefits of and barriers to RPGs.

Hypothesis 1 was that more frequent RPG attendance would lead to more positive outcomes, as reduced burnout, STS and psychological distress, and increased JS and CS and rating RPGs as more useful.

Hypothesis 2 was that nurses who preferred to attend RPGs as often as possible would report more positive outcomes and rate RPGs as being more 'useful' than those attending 'only when convenient' or 'as needed'.

Hypothesis 3 was that, once preferences for attending were accounted for, more experienced facilitators would lead to more positive outcomes and rate the RPGs as more useful, compared to less experienced facilitators.

Qualitative data was gathered to supplement previous studies on the experience of RPG participants. Whilst some studies indicate RPGs are perceived to be beneficial,^{5,7,8,19,21} with others indicating that participating in RPGs can also be uncomfortable and distressing.^{19,25,27}

DESIGN

The current study was a cross-sectional survey that used a mixed-methods design. The quantitative analyses compared the nurses on the outcomes and their views of the facilitators. Firstly, 3 x 3 ANOVAs were used, where nurses were grouped by their level of attendance at RPGs (Low, Moderate, or Extensive) and their personal preference to attend the RPGs ('As convenient', 'As needed', or 'As often as run'). The ANOVAs were conducted for the outcome variables; 'Usefulness of RPGs, JS, psychological distress, CS, STS, and burnout (i.e., ProQOL). Secondly, an ANCOVA was used to group nurses by RPG facilitator, with personal attendance preference as the covariate for the same outcomes. The qualitative element of the study grouped feedback into key themes via thematic analysis.³²

PARTICIPANTS

Participants in the current study were nurses who attended RPG's in various clinical areas at two regional Australian public tertiary hospitals. The vast majority came from a recently commissioned teaching hospital that had been open for two years. There was no incentive provided to encourage participation. The sample included 190 (88.3% female) nurses aged between 21 and 70 years (M = 40.93, SD = 11.78 years). The nurses worked between 16 – 48 hours/week (M = 31.9, SD = 6.4 hrs) and length of time in the job varied from one-year post-grad to 58 years (M = 15.6, SD = 19.1).

DATA COLLECTION

Data collection occurred between May and July 2019. Participants received information sheets, consent, and consent withdrawal forms. Facilitators were not present during the completion and collection of the anonymous questionnaires. Questionnaires were completed at the end of each RPG using a paper and pen format. The surveys took approximately 5-10 minutes to complete, and each participant was asked to complete the survey only once during the course of the study. No nurses who were approached declined to complete the surveys.

MEASURES

Demographics. Nurses reported their gender, age, workplace, hours/week worked, and years they had been nursing.

RPG Attendance. Nurses reported number of sessions attended; grouped as Low (1–5 sessions), Moderate (6–20 sessions), and Extensive (21–60 sessions).

Preferences for RPG attendance was measured using a single item categorising preferences as "when it is convenient with other duties" (As convenient), "just when I need it" (As needed), or "as often as groups are run" (As often as run).

RPG facilitator/s were named in a text box. There might be more than one, depending on ward changes and number of sessions attended over time. Level of experience was assessed by the second author as length of time in the program (e.g., newly trained, several years' experience).

Usefulness of RPGs was measured using the Clinical Supervision Evaluation Questionnaire (CSEQ).³³ Fourteen items were rated on a five-point Likert scale with a higher overall score indicating greater effectiveness. Cronbach's alpha = .94.

Job Satisfaction was measured with a single item using a sevenpoint Likert scale; *"Taking everything into consideration, how do you feel about your job as a whole?"*.

Professional Quality of Life (ProQQL) Version 5 has 30 items, with 10 each for the CS, STS and Burnout subscales, and scored using five-point Likert scales: never (1) to very often (5). Cronbach's alpha = .82 (CS), .83 (burnout), and .76 (STS).¹

Kessler Psychological Distress Scale consists of six items (Kessler-K6) rated on a Likert scale from none of the time (1) to all of the time (5).³⁴ Cronbach's alpha = .86.

Benefits and Barriers of RPGs. Participants listed benefits and barriers of RPG in two open text boxes. The first question asked, "Can you please indicate the barriers or challenges you have to attend RPGs?", and the second question asked, "Can you please indicate the things you enjoy about the RPGs and the benefits that you feel you have gained from attending the groups?". Key themes were identified via thematic analyses.³²

DATA ANALYSES

Quantitative data was assessed first for assumptions for Analysis of Variance (ANOVA), namely linearity, independence, normality, and homogeneity of variance. Quantitative analyses compared the nurses in two ways. Firstly, a series of 3 x 3 ANOVAs were conducted to analyse the outcomes of Usefulness of RPGs, psychological distress, JS, CS, burnout, and STS, with two independent variables. The first independent variable measured numbers of RPGs attended: Low (1-5 sessions), Moderate (6-20 sessions) and Extensive (21+ sessions). The second independent variable measured preferences for attending RPG: 'When Convenient', 'As Needed', or 'As Often as Run'. Secondly, a one-way ANCOVA was also conducted to compare the effects of the individual facilitators in relation to how useful nurses rated the RPGs, with preferences for attending used as a covariate. Significant group differences (two-tailed) were subjected to pairwise comparisons, using a Bonferroni adjustment for family-wise errors. Effect sizes were considered using partial η^2 , as small (.01), medium (.06) or large (.14),³⁵ relating to proportion of variance for the outcome that was explained by the independent variables.

Qualitative data about the benefits and barriers of RPGs was analysed using thematic analysis method outlined by Braun and Clarke, with steps being familiarity with data, searching for themes, reviewing themes, naming themes, and producing completed report.³² Themes were collated and numbers of responses counted, with sample responses provided for each theme.

RESULTS

Assumption testing for the ANOVAs established that requirements of independence, linearity, and normality of data was met for all outcomes. Homogeneity of variance was supported for all outcomes except Usefulness of RPGs and psychological distress (shown by significance on Levene's Test of Homogeneity for these two outcomes). Following Keppel's procedure, the breaches were accounted for by reducing the comparison alpha in these two ANOVAs from p < .05 to p < .025, to reduce the likelihood of overinflating the results.³⁶

ANOVAS FOR RPGS ATTENDED AND ATTENDANCE PREFERENCES

Nurses in the study had attended between one and 63 RPG sessions (M = 11.8, SD = 14.6 sessions) over a 10 year period. Attendance was grouped as: Low (1 to 5 sessions, n = 95), Moderate (6 to 20 sessions, n = 69), or Extensive (20 or more sessions, n = 26).

Table 1 shows means and standard deviations for each outcome, separated into levels of RPG attendance (i.e., Low, Moderate, or Extensive), and for each grouping of attendance preference; 'As convenient' (n = 43), 'As needed' (n = 25), or 'As often as run' (n = 122).

Outcomes	Preference for attending	Number of RPG sessions attended by nurses									
	RPGs	Low (1 to 5 sessions)			Moderate	e (6 to 20	sessions)	Extensive (20+ sessions)			
		n	М	SD	n	М	SD	n	М	SD	
Usefulness of RPGs	As convenient	28	12.07	6.57	13	15.38	5.66	2	12.50	6.36	
	As needed	11	10.64	5.55	8	8.38	7.56	3	11.67	1.53	
	As often as run	51	17.29	8.57	48	18.19	6.10	20	19.50	5.90	
Job satisfaction	As convenient	23	5.26	1.29	9	5.22	1.09	2	6.50	0.71	
	As needed	11	5.36	0.92	7	5.14	1.35	3	6.00	0.00	
	As often as run	45	5.49	0.90	40	5.27	1.06	14	5.07	1.39	
Psychological	As convenient	28	11.64	5.11	13	9.77	3.27	2	8.00	1.41	
distress	As needed	14	9.00	2.39	8	7.75	1.98	3	10.33	2.08	
	As often as run	53	11.74	4.22	48	11.40	4.75	21	10.38	3.99	
Compassion	As convenient	28	48.44	11.04	13	53.92	7.62	2	59.96	4.56	
satisfaction	As needed	14	47.67	11.84	8	47.05	14.03	3	51.00	4.48	
	As often as run	53	50.81	10.38	48	49.56	9.52	21	49.05	8.12	
Burnout	As convenient	28	54.10	11.38	13	45.45	7.93	2	43.07	13.65	
	As needed	14	48.86	9.34	8	45.72	15.61	3	48.22	1.11	
	As often as run	53	50.68	9.68	48	50.99	10.01	21	48.86	9.94	
Secondary	As convenient	28	55.23	9.13	13	44.68	9.91	2	43.06	3.89	
Iraumatic Stress	As needed	14	47.64	8.35	8	41.69	6.91	3	43.36	6.43	
	As often as run	53	51.96	10.00	48	50.46	10.52	21	49.29	10.13	

TABLE 1 MEANS AND STANDARD DEVIATIONS FOR THE GROUPS BASED ON HOW MANY RPGS THE NURSES HAD ATTENDED AND THEIR PREFERENCE FOR ATTENDING

Note. Numbers of participants may vary where there was missing data

TABLE 2 RESULTS OF THE ANOVAS TO COMPARE NUMBERS OF SESSIONS ATTENDED BY NURSES' PREFERENCES FOR ATTENDING THE RPGS

Outcome	Variables	F	df	η^2	Power
Usefulness of RPGs	Numbers of sessions attended	0.197	2, 175	.002	.080
	Preferences to attend	11.663***	2, 175	.118	.994
	Numbers x Preferences	0.566	4,175	.013	.186
Job satisfaction	Numbers of sessions attended	1.344	2,145	.018	.286
	Preferences to attend	0.883	2,145	.012	.200
	Numbers x Preferences	1.245	4,145	.033	.383
Psychological distress	Numbers of sessions attended	1.127	2,181	.012	.246
	Preferences to attend	2.278	2,181	.025	.459
	Numbers x Preferences	0.642	4,181	.014	.207
Compassion satisfaction	Numbers of sessions attended	0.894	2,181	.010	.203
	Preferences to attend	1.394	2,181	.015	.297
	Numbers x Preferences	1.316	4,181	.028	.406
Burnout	Numbers of sessions attended	2.254	2,181	.024	.455
	Preferences to attend	0.792	2,181	.009	.184
	Numbers x Preferences	1.489	4,181	.032	.456
Secondary Traumatic Stress	Numbers of sessions attended	5.748**	2,181	.060	.863
	Preferences to attend	3.364*	2,181	.036	.629
	Numbers x Preferences	1.644	4,181	.035	.499

Note. † *p* < .10, * *p* < .05, ** *p* < .01, *** *p* < .001

Note. "Numbers of sessions attended" was categorised as "Low (1 to 5 sessions)", "Moderate (6 to 20 sessions)", or "Extensive (20+ sessions)" "Preferences to attend" was categorised as "As convenient", As needed", or "As often as run".

"Numbers x Preferences" is the interaction between how many sessions attended and the preference for how often to attend.

Table 2 presents results of the 3 x 3 ANOVAs for each outcome with mostly small to small-medium effect sizes. The interaction between numbers of sessions attended and attendance preferences were not significant and did not influence each other in regard to any outcomes, showing small to small-medium effect sizes.

The first hypothesis regarding the effects of *level of attendance* (grouped as Low, Moderate, or Extensive attendance) had limited support. Significant differences were found for STS but not for other outcome measures, although there were trends indicating benefits from more extensive attendance. Psychological distress was non-significantly lower over time for nurses who attended RPG 'as often as possible' and 'as convenient'. Compassion satisfaction was higher over time in the 'when convenient' and 'as needed' attendance cohorts however sample sizes were small. For STS, pairwise comparisons (with Bonferroni adjustments) found that nurses who attended the least number of RPGs (1-5 sessions) reported significantly higher STS than the Moderate and Extensive attendance groups; particularly the Moderate group, (t(162)=3.12, p=.006).

The second hypothesis evaluating the effect of attendance preferences (grouped as 'As convenient', 'As needed', or 'As often as run') also had limited support. Significant differences were found between the groups, for STS (with a medium effect, $\eta^2 = .060$) and perceived usefulness of the RPGs (with a large effect, $\eta^2 = .118$) but not for other outcome measures. Pairwise comparisons (with Bonferroni adjustments) showed that nurses who went to the RPGs as they needed reported significantly less STS than nurses who preferred to go as often as the groups ran, t(162) = 2.48, p = .042. Interestingly, although STS also varied with level of attendance, there was no significant interaction between numbers of sessions and preference for attending.

There was also a significant difference in how nurses rated the usefulness of RPGs based on preferences to attend. Unsurprisingly, pairwise comparisons (using Bonferroni adjustments) found that nurses who preferred to go as often as the groups were run rated RPGs as significantly more useful than those who preferred to go only as needed (t(139) = 4.39, p < .001) or when it was convenient (t(170) = 2.59, p = .031).

FACILITATORS AND USEFULNESS OF RPGS

A one-way ANCOVA explored whether having an experienced facilitator might influence how useful nurses perceived RPGs to be, with preference for when to attend the covariate. Two RPG facilitators had many years' experience (Facilitators 1 and 2), with seven having fewer years' experience (Facilitators 3 to 7). With preferences for attending RPGs used as the covariate for the ANCOVA, there were slight differences in how useful nurses found the RPGs, F(4,175) = 2.72, p = .031, $p^2 = .058$ donending on who was the facilitator Although

 η^{2} = .058, depending on who was the facilitator. Although

there was a trend for nurses attending RPG with more experienced facilitators to rate RPGs as slightly more useful, pairwise comparisons with Bonferroni adjustments did not find any significant differences between facilitators. Small cohorts for less experienced facilitators, and the number of participants not nominating a facilitator, affected the results.

QUALITATIVE ANALYSIS

Qualitative responses were collated and analysed to find common themes, using thematic analysis.³² The five main themes identified as barriers to RPG attendance and five perceived benefits of RPG attendance are shown in Tables 3 and 4. Barriers and challenges were grouped into themes: Workload, Rostering, Feeling Uncomfortable, and Time Constraints, with the final field capturing the number that reported no barriers. Workload, Rostering, and Time Constraints are logistical issues associated with resourcing, job demands and organisational support. The other identified barrier, feeling uncomfortable sharing issues and opinions within a group, is more complex and may involve a combination of the process of reflection on challenging material, the process of challenging the workplace status quo, personal factors (such as shyness, lack of confidence and fear of judgement), along with facilitator ⁸ and group factors (e.g., lack of confidentiality or trust issues). There may also be broader implications related to existing workplace culture and context.^{24,26} The benefits of RPGs were identified as Discussing Issues, Support, Group Bonding, Selfimprovement, and the Facilitatory Alliance. These themes are consistent with existing literature exploring participant perceptions of RPG.^{6,10,19,21}

TABLE 3 QUALITATIVE RESPONSES FOR BARRIERS OF RPGS

Barriers	n	Sample Responses
Workload	41	"Workload in the workplace is the biggest challenge" "Workloads, RPG time not respected, called out of RPG to work"
Rostering	30	"Being rostered on when they are conducted" "Have to be rostered on an afternoon shift, otherwise I cannot attend"
Uncomfortable	27	"Slightly uncomfortable sharing personal experiences" "Unsure if I would be judged discussing my true feelings"
Time Constraints	21	"Time constraints. Clinical practice prioritised" "Time constraints on ward"
No Barriers	6	"Nothing" "Nil Barriers"

Note: Although a total of 127 Barriers were recorded, some participants mentioned multiple themes in their responses

TABLE 4 QUALITATIVE RESPONSES FOR BENEFITS TO ATTENDING RPGS

Benefits	n	Sample Responses
Discussing issues	66	"Good to discuss problems and talk about solutions you may not have come up with yourself" "Safe space to share and be helped"
Supportive	38	"Group Support, normally restore faith + hope" "Supportive and diverse relationships"
Group bonding	23	"Group bonding. Colleague Support Connection to group members, trust building" "Group cohesion/brainstorming"
Self- improvement	18	"I developed new skills. I can handle stress better" "Challenges me to speak up"
Facilitator	8	"Enjoyed honesty of the facilitator. Facilitator had professional ethics for the group" "Commitment and care from our facilitator"

Note: Although a total of 123 benefits were recorded, some participants mentioned multiple themes in their responses.

DISCUSSION

The current study adds to the findings of previous studies by the same research group, with similar cohorts of nurses. For this reason, discussion will explore the current study in context of, and in relation to, the other findings. The hope is to clarify the line of enquiry and provide a more integrated view of collective results.

Hypothesis one from this study predicted a relationship between greater RPG attendance and better outcomes, and this was supported in part. Nurses who attended more than six groups reported significantly less STS however other outcome factors were not significant. Hypothesis two predicted that nurses who preferred to go 'as often as groups were run' would rate RPGs more highly and report better outcomes. Participants who went as often as possible did rate RPGs as more beneficial, however it was the participants who attended 'only when needed' that reported the lowest STS and psychological distress. There were no other significant outcome differences.

It is significant that 64% of nurses in the study (*n* =119) preferred to attend RPG 'as often as possible' and also reported higher levels of STS. These nurses also rated the groups most highly, and the more groups attended by this cohort the higher that rating was. One inference from this is that the majority of nurses in the study were experiencing higher levels of STS and found RPGs helpful in mitigating this. It also seems logical that nurses with lower psychological distress and STS might want to attend RPG sessions 'just when needed.' Research has shown that nurses

generally seek out the restorative benefits of supervison in the first instance, and individuals that perceive lower stress levels may be less inclined to seek out support.^{10,37}

It might also be speculated that RPG attendance might cause or exacerbate STS and psychological distress. We know from the qualitative data that some participants find reflecting in a group to be uncomfortable. however, participants who had attended more RPGs reported lower STS regardless of attendance preference. In fact, all attendance preference groups demonstrated some decrease in STS with greater attendance.

A degree of psychological distress is inevitable in the early stages of attending RPG, as participants learn to think more critically and adjust to the group setting.^{28,29} It is possible that at first, an increasing sense of self-awareness and empathy for the struggles of colleagues might lead to discomfort or distress. This is consistent with a previous finding from the project that increased group cohesion was correlated with higher STS, but that other RPG-related mediators of selfefficacy, autonomy and social support seemed to mitigate it.^{21,29}

There is no doubt that resilience levels differ between nurses, and within nurses over time. It is likely that some nurses cope by containing, suppressing or repressing their distress. As RPGs provide an opportunity to become more self-aware, so do they allow nurses to find a voice. While this may be unfamiliar and uncomfortable at first, the group's role is to validate, support, and help nurses process issues in a safe environment, providing longer term restorative and formative benefits.^{7,10,21}

When viewed in isolation, results of the current study might seem to indicate that benefits of RPG attendance only relate to stress reduction, however the collective studies in the project indicate a range of other potential benefits. The first study examined a cohort of 251 nurses found that RPG attendance was correlated with higher CS but no other elements of ProQOL.⁵ The second study then undertook further analysis of the same data and found a 'dose effect' in regard to RPGs.⁵ Nurses who attended 6-18 groups demonstrated significantly lower inhibitory anxiety and significantly higher tolerance to uncertainty, while those who attended more than 18 groups reported significantly higher CS and group cohesiveness. It was not possible to attribute beneficial outcomes to RPGs over other personal and job resource factors, however, or to identify any flow on effect to the workplace outside of the benefits for nurses who attended.

One year later, another quantitative study used a similar cohort of 191 nurses.²¹ This study explored the potential indirect effects of RPG attendance on ProQOL and focused on the perceived quality (effectiveness) of RPG by participants using the CSEQ. Higher CSEQ ratings were found to be positively correlated with a number of personal and job resources, including greater self-efficacy, job autonomy, skill discretion, job social support and group cohesion. This indicated the possibility of an indirect link between RPGs and ProQOL, with positive correlations in all three aspects of ProQOL seeming to be mediated by the resources of selfefficacy, job autonomy and social support for those nurses who attended more effective RPGs.²¹ The current study uses the same sample as Sundgren et al.²¹ but brings the focus back to 'dose' rather than 'potency'. The collective findings provide evidence that greater attendance at quality RPGs is associated with increased personal and job resources and greater ProQOL.

FACILITATOR EFFECT

It is important for the utility of the RPG model that all facilitators in this study were viewed as being effective by participants, but also that those with more experience had slightly higher ratings. This finding both identifies the importance of skilled facilitation but also that facilitators can be trained to a competent level in the model.

BENEFITS AND BARRIERS

Qualitative feedback reinforces the findings of an associated qualitative study from this project regarding the importance of voluntary attendance, group cohesion, confidentiality and effective facilitation in strengthening psychological safety, enhancing group process and improving RPG effectiveness.⁸

Social support and group cohesion are significant job resources that promote a positive work environment for nurses.^{4,23,27} Consistent with previous research,^{6,7,19,27,38} this study supports that effective facilitation of group processes is essential for enhancing cohesion, promoting the sharing of resources^{5,18} and creating a supportive space for issues to be addressed in RPG,^{6,8,10}

In order of significance, barriers to RPG attendance were workload, rostering, discomfortable sharing in a group, time constraints. Thes findings support the findings of Platzer and colleagues²⁶ and can be noted to primarily be logistical and organisational. This is topical in context of a growing focus on organisational responsibilities in relation to clinical supervision for nurses.^{39,40} Also consistent with previous literature,^{7,27} 14% of nurses in the study identified a level of discomfort in relation to RPG attendance. Reasons ranged from anxiety about sharing personal thoughts, to concern about confidentiality. The process of reflection can often result in a level of discomfort as accepted understandings, practices and norms are challenged,^{28, 29} however confidentiality is crucial to establishing psychological safety. Issues such as confidentiality, appreciation of diversity and mutual support are explicitly addressed during the formation of RPGs, and then regularly reinforced during group sessions.

STRENGTHS, LIMITATIONS AND FUTURE DIRECTIONS

As with other studies in the project, the current study is quasi-experimental, not robustly randomised or controlled. For this reason, there may be a range of complex inter-related variables that could influence results: workplace and societal context, facilitator, individual and group variables. There is also potential for bias with self-reporting measures, plus limitations due to the opportunistic nature of sampling.

In considering the risk of confirmation bias, all studies in the research project have been conducted by researchers who were not involved with the RPG program; however, authorship of the published articles has involved an RPG facilitator from the program. The richness of qualitative responses may have been limited by the use of text-box responses, allowing participants to avoid and/or provide limited detail as opposed to an interview or focus group setting.

While each of the five studies in this project has provided evidence to support that RPGs may be beneficial, it is interesting that the identified benefits have differed between studies. It is important to acknowledge that discrepancies might be attributed to research design or methodology.⁴⁰ It might be that researchers are not identifying, assessing or interpreting factors and variables that need to be considered in a way that will provide the best results. The studies have all been cross-sectional and effects of RPG may be quite subtle and occur over time.

Another consideration is that data collection for different studies took place at the same facilities but a year apart.^{5,21} Workplace and other contextual variables might well have changed in this time. Correspondingly, nurses' issues and needs may have led them to seek and perceive different benefits from RPG. Another previous associated study has identified that different nursing cohorts report different benefits from RPG, and that perceptions of benefits may change over time.⁴¹ A recent study by Gabrielsson at al.⁴² has identified variations in nurses' reflective capacity based on their nursing specialty, whilst Hooper et al.⁴³ has identified how perceptions of ProQOL vary between nurses in different caring roles. Emergency nurses reported less CS, while intensive care nurses rated higher for burnout and oncology nurses higher for compassion fatigue. All of these factors might influence the benefits that nurses seek and perceive from RPG in these studies, and indeed from clinical supervision in general. It might also be that nurses' needs and the perceived impacts of RPG reflect changing issues within organisations, services and communities e.g. the impact of the recent COVID Pandemic.Overall cohort sizes seem adequate however some of the data sub-groups were quite small; particularly those for high level RPG attendance.

It is proposed that the collective results of the overarching RPG project be viewed as complementary 'parts of a puzzle'. Synthesising findings in regard to 'dose' and 'potency' leads the authors to conclude that the longer nurses attend effectively run RPGs, the more opportunity they have to access a range of individual and workplace benefits, develop resources, and improve ProQOL. As anticipated, ongoing research is needed to better understand the processes and impacts of RPG.

CONCLUSION

The current study has addressed a gap in the literature regarding attendance preferences while expanding upon previous findings around attendance rates and participant perceptions. In context of the larger research project, RPG attendance is associated with both reduced STS and increased CS, and positively correlated with a number of personal and job resources. Qualitative responses indicate that nurses perceive RPGs to be supportive, facilitating shared of problem solving and building team cohesion. Many of the barriers to RPG effectiveness relate to work-related issues such as rostering and workload. These need to be addressed through organisational and managerial support.

Some degree of discomfort in RPG is an inevitable part of the reflective process,⁴⁴ however, effective facilitation and strengthening of group processes can help to mitigate discomfort related to the group format. Whilst the benefits of RPGs can increase with greater attendance, preferences to attend and voluntary participation are seen to be crucial considerations.

Overall, findings continue to support that RPGs are a viable form of clinical supervision, and a job resource for nurses.⁴ Future research should focus on analysing a larger sample size from a variety of hospitals and specialty areas over a period of time.

Authorship statement: All listed authors were involved in:

- Contributing to the conception & design of this work.
- Drafting & revising the work critically.
- All parties have given final approval of the version to be published.
- All parties agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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CASE STUDIES

Enhancing palliative care at home: a generalist community nursing case study

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ABSTRACT

Objective: This quality improvement project aimed to explore the experience of home care nurse managers implementing a general palliative approach to care. Implementation comprised several interlinking activities encompassing stakeholder engagement and an education program in the outer eastern region of a home care and nursing organisation in Melbourne, Australia, between September 2019 and December 2020.

Background: High quality provision of communitybased palliative and end-of-life care means people are much more likely to die at home, supported by family, friends and services. To achieve this, care staff must be adequately trained and supported, alongside a collaborative approach with other generalist and specialist providers.

Study design and methods: This Case Study reports on the participant perspectives of the stakeholder engagement and education program. Focus groups and an interview were used to elucidate the experience of nursing and allied health professionals providing a general palliative approach in the community. The 2006 National Institute of Clinical Studies framework to identify barriers to best practice healthcare guided the development of focus group questions and the deductive analysis of data.

Results: Seven Nursing Care Managers and one Social Worker participated in two online focus groups and one interview. Three overarching themes highlighted the value of tailored education in increasing staff knowledge and confidence, the factors for a successful generalist-specialist partnership, and the unique nature of the home care setting which requires accessible systems and processes.

Discussion: This project supports assertions that generalist services can play a valuable role when a palliative approach to care is incorporated. It also underscores the importance of collaborative working partnerships between generalist and specialist services in providing quality community-based palliative care. Future research should examine the needs and perspective of clients, carers and families receiving a general palliative care approach in the community.

Implications for research, policy and practice: Investment in developing the capacity and capability of generalist service staff to deliver palliative care is vital, particularly when caring for people in their homes. Although small, this study demonstrates that consideration should be given to embedding staff with specialist palliative care training within generalist organisations to drive and champion evidence-based palliative care provision, training, policies and procedures that meet the unique needs of mobile workforces. Future research should examine the effectiveness of different models and methods for education and generalist-specialist partnerships that meet the needs of mobile home nurses, particularly regarding long-term impact and sustainability.

What is already known about the topic?

- Most Australians prefer to be cared for and die in their own home.
- Home care nurses are key generalist health professionals who support community-based palliative and end-of-life care, organising and providing care, coordinating the input of other health and social care professionals.

 Home care nurses face challenges in meeting their clients' palliative care needs (such as symptom management and communication) and have deficits in their knowledge and confidence of caring for palliative clients.

What this paper adds:

- This case study demonstrated that facilitating ongoing education opportunities that draw on the expertise of local palliative care champions or internal specialists can enhance care provision.
- Nurse care managers believe the value of generalist services, particularly home care services, in the generalist-specialist palliative care partnership, needs to be understood and respected.
- Tailored investment in home care to provide a general palliative approach would be beneficial given the unique challenges of this mobile workforce.

Keywords: Palliative care; home care services; Education, Nursing; qualitative research; Nurse Practitioner

BACKGROUND

Palliative care focuses on improving the quality of life of people affected by life-threatening illnesses, including the prevention and relief of suffering through identification, assessment and treatment.¹ This care extends to family members, and encompasses physical, psychological, social and spiritual support. At least 120,000 Australians each year may benefit from access to palliative care.² As many Australians desire to be cared for and die at home,^{3,4} the provision of quality community-based palliative care is vital. Home nursing and care organisations are key providers of community-based palliative care, with staff often the linchpin, in supporting palliative clients, organising and providing care, coordinating the input of other professionals and of specialist equipment.⁵ Previous research has identified the difficulties faced by home care nurses in meeting their clients' palliative care needs, such as symptom management and communication, as well as requirements for further training to enhance their knowledge and confidence of caring for palliative clients.5-7

In this context, generalist palliative care is delivered by health and care professionals with broad clinical responsibilities who provide primary, ongoing care; and have established relationships with the person and their care community.² This is distinct from specialist palliative care services which support complex needs through multidisciplinary teams with specialised palliative care training. This case study presents the qualitative evaluation findings from a quality improvement (QI) project that aimed to promote a general palliative approach as part of standard practice in a home nursing and care organisation. The purpose of the qualitative evaluation was to explore the experiences of participating care managers, and barriers and enablers to providing a general palliative approach.

METHOD

SETTING

This project focused on home care provided in the Outer East of Melbourne, Australia, by a national not-for-profit home care, retirement living and residential aged care provider. In this catchment area (Local Government Areas of Maroondah, Knox and Yarra Ranges), the organisation provides care to approximately 2,600 clients yearly, 70% of whom have multimorbidity. The rationale for this project was multi-factorial with de-skilling of the existing workforce over time associated with cessation of region-based funding to provide community-based specialist palliative care, to being a generalist palliative care provider. Of note, only 1% of clients in the catchment area were recorded as having specialist palliative care involvement despite multimorbidity and predicted need.

QUALITY IMPROVEMENT ACTIVITIES

To incorporate a general palliative approach, several interlinking QI activities encompassing stakeholder engagement, education, and evaluation were conducted between September 2019 to December 2020 (Table 1). The QL activities were managed and supported by a palliative care specialist (Nurse Practitioner) embedded within the organisation, whose remit is to drive evidence-based generalist palliative care provision, policy and guidelines; build capacity from within the organisation, provide expert support, consultation and escalation as needed. Identified as having a pivotal role in guiding and supporting staff, Care Managers, comprising Grade 3 Registered Nurses who provide clinical support, advice, and supervision to Local Area Teams, were the focus of the project activities and outcomes. COVID-19 restrictions meant that some activities did not occur.

QUALITATIVE EVALUATION

Two focus groups, each of two hours duration were conducted at the end of the project in November 2020 by GJ and LD, with seven Care Managers via Microsoft Teams videoconferencing platform; and a one-hour interview was conducted with a Social Worker. Consent was provided for recording, transcription, and analysis. Focus group and interview questions were developed to explore and understand:

- Experience participating in the project
- Perceived barriers and enablers to taking a generalist palliative approach with clients
- Resources, training and processes needed to successfully support clients
- Experience in partnering with external services to deliver palliative care

Verbatim transcripts were imported into NVivo for coding. The coding framework was based on the National Institute of Clinical Studies framework to identify barriers to best practice healthcare.⁸

The primary researcher (GJ) conducted line by line coding against the framework, then deductive thematic analysis was used to identify and categorise three key overarching themes. These overarching themes were developed through discussions with the research team.

ETHICS

This study was approved by the Bolton Clarke Human Research Ethics Committee, Approval Number 170035.

QI Activity	Aim	Activities conducted	Activities planned but unable to occur due to COVID-19 pandemic
Stakeholder engagement	To strengthen relationships with key stakeholders and providers	Meetings with operational and care managers, project steering committee (7 x 1.5 hour), primary health network, and specialist palliative care provider. The major specialist community based palliative care service for the region comprises nursing, medical, allied health and bereavement support $24/7$.	
Educational program	To facilitate and provide innovative ways to improve staff knowledge and confidence in providing a general palliative approach	 Tailored education based on pre-project survey to identify learning needs, comprising In-person education day with specialist palliative care provider, covering: Defining Palliative Care, Communication in the Palliative Care Setting, Advance Care Planning, Symptom Assessment and Management, The Dying Process and End of Life, Grief and Loss, Self-Care Tailored e-newsletters x 5, and final quick reference guide, emailed at regular intervals, including information, links to resources, related organisational policies and procedures and evidence-based tools to be considered for applicability and implementation. Topics covered included Advance Care Planning; Recognising Deterioration; Responding to Deterioration; Symptom Monitoring; Grief, Loss, Bereavement and Looking After Yourself. In-house support from a Nurse Practitioner – Palliative Care and Advance Care Planning Champion (Social Worker). 	Planned face-to-face learning and mentoring opportunities, including joint visits with Nurse Practitioner, shadowing, and monthly meetings
Mixed methods evaluation	To evaluate the impact of the QI activities on key palliative care indicators, and understand the experience of, and barriers and enablers to providing general palliative care in home care	Analysis of quarterly operational data from electronic care records Focus groups and interviews with Nursing Care Managers and Social Worker	Feedback was unable to be sought from client, carer, and General Practitioners (GPs)

TABLE 1: QUALITY IMPROVEMENT (QI) ACTIVITIES

FINDINGS AND DISCUSSION

Thematic analysis identified the following overarching themes: 1) targeted education increased staff knowledge and confidence, but more is needed; 2) collaborative teamwork with effective communication and information sharing underpins a successful generalist-specialist partnership; 3) the home care setting is unique and requires accessible systems and processes. Quotes illustrating each theme are outlined in Table 2.

TARGETED EDUCATION INCREASED STAFF KNOWLEDGE AND CONFIDENCE, BUT MORE IS NEEDED

The project was positively received and valued by participants. Participants identified the benefit of tailored education appropriate to the context, with clear and consistent definitions, and how knowledge translated into systems and day-to-day practice. Participants reported that they felt more confident with delivering a palliative approach. The Advance Care Planning (ACP) education content was described as addressing a real need, with recommendations made to extend this to the broader workforce and community of care. Of note, participants articulated that a lack of client and family understanding hampered their ability to put this knowledge and skills into practice, in their role of "*planting the seed*" and starting a conversation around ACP. This is in accordance with previous research that identified deficits in ACP knowledge,^{9,10} and reflects the continued stigma and negative connotations around palliative care and death.¹¹

Challenges were reported in striking the balance between providing care and ongoing education in a geographically diverse and mobile workforce, with scheduling and resourcing challenges identified. 'On-the-road' peermentoring or buddying could not optimally occur during the project due to COVID-19 restrictions; however, participants supported this as a valued solution. Mentorship from clinical leaders and observation of experienced nurses is integral to imparting knowledge, influencing care practices, and facilitating integration of theory into practice,¹² and could

Overarching Theme	
Targeted education increased staff knowledge	"It's added to the arsenal of things that we have in our, you know, in our pocket that we can use on a day-to-day basis with our clients." [P1, G2]
and confidence, but more is needed	"It's lovely knowing that the [Nurse Practitioner] is there as a resource and as a second opinion if we need her" [P1, G2]
	"I think a lot of RNs [Registered Nurses] still fear admitting palliative clients. They just, you know, the fear of being asked questions they're not gonna know answers for and things like that" [P3, G2]
	"And that's a big scary word or words for people - advance care planning is - for some people." [P2, G2]
Factors in a successful generalist-specialist partnership: collaborative teamwork with effective	"I put it in regards to the clients. I say look, you know you don't want us asking the clients all the same questions that you've asked Do you mind sending through all your health information and your care plans and things. So that just then, that indicates to me like what the family support worker's doing, what the massage person is doing. What everybody else is doing" [P3, G2]
communication and information sharing	"It's like it's always been that we get the dirty work and not that we think it's dirty workbut we do the hands-on care, and they just go in and change the syringe drivers. It just it, it seems to me that we need more support from them to do the things that need to be done while they're at the visit." [P4, G1]
	P1, G1: "I feel like there should be a bit more cooperation on their part, on [Specialist Provider]'s part to support us too. 'cause that's what we're here for.
	P4, G1: Absolutely. Sharing the care.
	P1, G1: And sharing the communication too."
The unique home care setting requires accessible	"You're nursing the person on the journey to the end, and you're also nursing the people who are there with them." [P3, G1]
systems and processes	"Yep, 'cause they're the conversations we have while we're doing the bed bath, or, you know, whatever we're doing. While we're doing the care, we're sort of having these conversations. It's not separate to - It's sort of all happens there." [P4, G1]
	"They've already established that trust with you as the Care Manager, or as the primary nurse in that area then it makes it easier for the family and the client to transition to their next stage of life if that relationship is already formed." [P1, G1]
	"The families haven't been really, the whole thing of having someone die at home hasn't been explained to them, how, what it actually entails. You don't want to say how difficult it is, because you want to support them for as long as you can, but there does come a time where it's just not practical or safe for that person to remain at home and we have to be the bad guys that say "Look, sorry, y ou just can't do this anymore." [P4, G1]
	"Occasionally we have a lot of distance between our clients, whereas when you're closer into the city and the suburbs are more compact, there's less space between client A, client B. Just getting two people to be in the same place, you gotta work out where they're coming from in the first place. They're quite physically large. And to get from one end to the other, and then have two people meet up at a given place at a given time" [P3, G1]
	"It would be nice to have maybe one that's more generalised, so one that incorporates pressure area care, mouth care,restlessness. It might be a bigger care plan, but it kind of covers everything" [P2, G1]

TABLE 2: QUALITATIVE THEMES AND REPRESENTATIVE QUOTES

prove more cost-effective than more formal, in-person education sessions. Identifying trusted local leaders who can act as a conduit for information dissemination would complement this approach. One such supportive avenue within the project with which participants had increased awareness and utilisation was the Palliative Care Nurse Practitioner, with access to this subject matter expert instilling confidence in staff and provision of timely evidence-based information that could then be cascaded outwards.

FACTORS IN A SUCCESSFUL GENERALIST-SPECIALIST PARTNERSHIP

A team approach was perceived as crucial to providing quality palliative care. Findings supported the view that a successful collaborative partnership between generalist and specialist palliative care providers is a key enabler to provide quality care.¹³ The peer-reviewed literature identifies key factors for such partnerships including good communication between providers; clear definition of roles and responsibilities; opportunities for shared learning and education; appropriate and timely access to specialist palliative care services; and coordinated care.14 Care Managers articulated that the partnership could be compromised by a lack of a clearer delineation between each service's role, service provision, scope, and expectations; with participants feeling their contribution and strengths were not understood or valued. This experience of generalist providers feeling undervalued by specialist colleagues is not uncommon, nor are tensions between generalist and specialist care cultures.^{13,15} Participants spoke of experiences of poor communication and information sharing between partners leading to duplication and often disjointed care provision. This may be compounded by an increasing taskfocused and time-limited service provision which can hinder multidimensional, holistic symptoms management and care.¹⁵ However, shared learning opportunities, such as the project's education day led by the specialist service, were viewed as beneficial for strengthening the partnership.

THE UNIQUE HOME CARE SETTING REQUIRES ACCESSIBLE SYSTEMS AND PROCESSES

Participants explained that the context of providing athome general palliative care is unlike other community or acute healthcare services. For participants, flexibility and adaptability to change was important in delivering a general palliative approach, given the unpredictability and different complexity of individual client's situations. Integral to managing this was fostering the trusted, often long-term relationships with clients and carers, complementing care provision with informal discussions. This complex nature of home care, with relationships being the basis of care, is in line with previous research.⁵ However, despite caring for people at home being less costly than residential aged care,^{16,17} participants reported that resources required to provide quality general palliative care are not insubstantial. Resource management for the level and amount of care required for a client to remain and die at home was particularly challenging given the competing priorities in a generalist service, as not only a provider of specialist palliative care services. This was compounded by managing client and family expectations with the realities of palliative care at home. Participants discussed the tension between being supportive and practical, which required facilitating difficult conversations.

It was acknowledged and evidenced that each Care Manager works differently, given their experience, staff and locale, which needs to be considered and accounted for in any new initiatives. Having a standardised approach is integral to embedding the palliative approach, yet it needs to be responsive to the unique nature and demands of home care, including workforce and service availability, which can vary with client age and location.

Central to the role of Care Managers was planning and coordinating care, however they noted that existing symptom management care plans were under or incorrectly utilised and did not meet the complex needs of palliative care clients. Although participants were supportive of having a single simplified general palliative care plan, they were acutely aware of the barriers of this being implemented with a need to strike the balance between documentation and spending time supporting the client and family.

CONCLUSION

This case study explored the experiences of nurse care managers, alongside perceived barriers and enablers to implementing a general palliative approach as part of standard practice in a home nursing and care organisation. This case study illustrates that home care services can provide community, home-based, generalist palliative care to clients, their family and carers, as they have fostered trusted, often long-term relationships, alongside having the requisite clinical skills. It is recommended that palliative care as a standard practice of care delivery, is embedded and driven from within organisations, for all members of the workforce, appropriate to scope, and recognised as a natural and inevitable part of the care journey. Inclusion of specialist practitioners within generalist services can support the tailoring and translation of best practice into the unique home care context. Greater efforts should be made to ensure support from collaborative partnerships with specialists and other generalists, through a team-based approach that recognises each parties' strengths. Further investment and resourcing would greatly benefit a generalist palliative care approach in home nursing to support community members to be more likely to remain at home, prevent avoidable hospitalisations, and allow them to die in their place of choice.

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