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EDITORIAL

Burnout as a systemic challenge: job demands, loss cycles and the need for a workforce strategy

On the day I commenced writing this editorial, ABC News published an article highlighting the dire circumstances that the nursing profession faces at present; an unrelenting COVID-19 crisis, nurses who are burnt-out and resigning after years of challenging work conditions, and a projected national shortfall of nurses.[1,2] The article was not really news to me and I'm sure not news to any of the AJAN readership.

While the article suggests COVID-19 has been the catalyst for such calamity in our healthcare settings, workforce studies conducted by the Rosemary Bryant AO Research Centre since 2017 suggest otherwise. It is neither solely a COVID-19-related phenomenon and nor is it nursing specific; both nurses and midwives work in very challenging work environments, an increasing number are burnt out, and the proportion of those considering leaving either profession is growing.[3-5]

To use a sporting analogy; if we imagine nurses and midwives are a football team and transpose the current working environment to the playing field, we would likely have a situation where the team would be losing each week simply because they don't have enough players on the field (lack of staff). In this situation, coaching staff are at a loss because there are too few new recruits and the league isn't offering any solutions (poor workforce attraction and renewal). After weeks of striving, with players covering multiple positions and taking on roles they have less experience in (inadequate skill mix), the team now find themselves at the bottom of the ladder, morale is extremely low, some players are sick of playing (i.e., burnt out) and some are consider changing teams or leaving the sport entirely.

Somehow, I can't imagine the AFL letting a team on the field without enough players due to unfairness and safety concerns. So why aren't our health system leaders and politicians not embarrassed by the current 'state of play' in our healthcare services? After all, we are spending a lot of money training our healthcare professionals[6] – it seems counter-intuitive to provide them with working conditions that drive them to want to leave.

As noted in the ABC article, lower job engagement and higher burnout are precipitating factors that lead people to exit their roles or their profession entirely. Burnout (or lack thereof) is the barometer of a healthy workforce, and the factor that determines a good day 'on the field' or a bad day, irrespective of how hard it was.

What I will attempt to convey though this discussion is that burnout emerges through a complex interaction between the individual, the working environment, and the system in which that working environment operates. Similarly, the solutions required are not necessarily straightforward and require sustained investment.

SO WHAT IS BURNOUT AND HOW DOES THE WORKING ENVIRONMENT CREATE BURNOUT?

Burnout is conceptualised as a phenomenon that is related specifically to the occupational context. Burnout was first introduced in 1974 and is now a recognised occupational risk for many healthcare workers, including nurses and midwives.[7,8] Burnout is defined in the World Health Organization International Classification of Disease 11th Revision (ICD-11) as a syndrome that results from "chronic workplace stress that has not been successfully managed".[9] The inclusion of burnout in the ICD underscores the importance of monitoring its prevalence and responding with appropriate intervention. Also, its definition reinforces that time is a critical factor; there must be *chronic* stress in place in order to create burnout.

Burnout is often measured using questionnaires and includes dimensions of exhaustion, cynicism or disengagement with work and, in some cases, perceived lack of achievement. Also, similar to other psychological phenomena (e.g., personality, depression, IQ), there are different examples of these questionnaires developed by different authors; the most popular of which is that developed by Maslach and Jackson.[10] An important distinction arises here in that authors are not necessarily adopting the same operational definition when they measure burnout. This can lead to a potentially confusing 'image' of what burnout looks like. This is something for scholars in this area to address, but, from a policy and staff support perspective, is potentially trivial. There is usually a high degree of overlap in these questionnaires, and the burnt-out profile of staff will emerge if it is there. For a more technical discussion of burnout measurement, I refer readers to an interesting article by Roelofs and colleagues who discuss measurement through both a questionnaire as well as clinically.[11]

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In healthcare settings, factors that may lead to burnout include workload, staffing levels, control over the job, job and psychological demands, twelve-hour shifts, interprofessional relations, supervisor/leader support and the work environment.[12,13] Indeed, the job role and working environment of nurses and midwives is inherently physically and emotionally demanding.[14] Exposure to traumatic events, patient and family experiences and emotions, managing a heavy workload, the physicality of the work, shift work, and interpersonal relations are all identified causes of nursing stress.[14-17] Major organisational changes can also directly influence the working environment for nurses and midwives including unit-level restructuring, increased workload, less managerial support, reduced input, and/or less resources for staff.[18] In turn, these changes to working conditions impact stress and burnout of staff.[19,20] The environment outside of work is also important too with respect to buffering work demands through additional resources the person can access (e.g., social support structures) or, indeed, exacerbating them (e.g., family demands that impact on a person's ability to recover adequately for work).

Once burnout begins to emerge in individuals, it may then lead to a range of negative workforce outcomes, including reduced job performance, job satisfaction, quality of care, patient safety, patient satisfaction and greater workforce turnover,[13] and a number of health-related factors including acute healthcare conditions, impaired sleep, sickness absence, deteriorating mental health and perceived general health.[18]

GAIN CYCLES, LOSS CYCLES AND THE NEED FOR A WORKFORCE STRATEGY TO ADDRESS BURNOUT

Burnout can be conceived as the consequence of excessive, long-term job demands without sufficient resources in which to deliver on those demands.[21] However, we know the working environment is not experienced linearly by all employees with respect to exposures and response.[22,23] People's individual history of their work experience can make a significant difference between whether one feels supported or unsupported at work, and hence, whether one is on a 'gain cycle' of work engagement or a 'loss cycle' of burnout. For example, two individuals may work in similar roles, attend similar meetings across the day, perform similar tasks, and address similar challenges. However, due to the long-term perception of balance between demands and resources, the two individuals may have opposite 'experiences' of their work for the day. The person on the 'gain cycle' is stimulated by the meetings, is satisfied by their daily tasks and reacts positively to the challenges they need to overcome. They have an 'engaged work profile'. Contrastingly, the person on the 'loss cycle' is sick of attending meetings, unstimulated by their tasks and frustrated by all the challenges they have each day. They have a 'burnt-out work profile'.

This model can also extend to the team environment, and, as nursing and midwifery are very much team professions, we must also consider that a team environment may create a similar psychological response across those individuals.

As we are now seeing this pattern emerge strongly as a system-wide issue, we therefore require a system-wide solution. First, we must avoid thinking that burnout can be addressed through a simple, workforce support intervention to 'help staff feel supported'. This is short-sighted and potentially wasteful. While workforce support interventions are important and beneficial, and certainly may assist to alleviate current stressors, they must be part of a broader, long-term workforce strategy.

Second, my observation is that the system is not currently able to provide a proactive response to reduce risk of burnout; rather there is only capacity to provide reactive solutions to current crises, which are exacerbating the risk of burnout. Hence, time, planning and adequate resourcing will be critical to long-term success of addressing burnout among the professions.

A potential solution is a sustainable workforce strategy that places the engagement of its employees as one of its central tenets. Through the strategy, we can then review the forces at work (i.e., what is driving people to experiencing work as a 'loss cycle'?), identify what is different for those who are engaged at work (those on a 'gain cycle') compared with those who are not to identify what a tipping point looks like, isolate those parts of the problem that the system can address, and begin the slow, staged process of rebuilding the engagement of our workforce. This process will not occur within a political cycle and will not succeed without system-wide engagement, so we must make plans to extend beyond the political agenda and have a joined-up approach across the nursing and midwifery professions to give our workforce a sporting chance of success.

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RESEARCH ARTICLES

Mental well-being and future career intentions of new graduate nurses and midwives in their first year of entry into the workforce: a cross sectional survey

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ABSTRACT

Objective: To explore mental well-being and future career intentions of new graduate nurses and midwives (NGs) in their first year of work.

Background: Mental well-being is important for people to feel good and function well in their daily life. However, little is known about changes in mental well-being and future workforce intentions of nurses and midwives in their first year of professional practice.

Study design and methods: A cross-sectional study was conducted at a large Local Health District in New South Wales, Australia. Nurses and midwives (N=170) who commenced a transition program in February 2017 were invited to complete a survey using the Warwick-Edinburgh Mental Well-being Scale after four to six weeks (Group 1) and again at 10-11 months (Group 2). Unpaired t-tests for independent samples were used to compare differences between time-points.

Results: Response rates were 47% for Group 1 and 29% for Group 2. The mean (median) mental well-being score was 52.1 (52) for Group 1 and 48.7 (50) for Group 2. While the majority of respondents retained a moderate/high sense of well-being, decreases were significant for the items, 'feel relaxed' and 'interested in new things'. Being located in rural areas, being aged between 20-29 years and being female was related to a lower well-being score for Group 2. The main factors contributing to NGs well-being were: a supportive environment, resilience, self-efficacy, and sense of achievement. Respondents with higher total well-being scores were significantly more likely to continue working at the current

organisations and significantly less likely to seek employment in other organisations.

Discussion: This study provides valuable insight into the mental well-being and future career intentions of new graduate nurses and midwives. Most of them retain a moderate to high sense of well-being over their first year of practice which suggests sufficient support is provided, or that they are an inherently resilient population. Building supportive environments that assist resilience, self-efficacy and sense of achievement is critical.

Conclusion: With the current COVID pandemic situation, addressing factors impacting on the mental well-being and future career intentions of new graduate nurses and midwives in their first year may be more critical to enhance job satisfaction, leading to improved workforce resilience and capability and therefore the provision of quality healthcare.

Implications for research, policy and practice: The findings of the study reinforce the importance of mental well-being to retain new graduate nurses and midwives in the future workforce.

What is already known about the topic?

- Positive mental well-being supports people to feel good and function well.
- Entering into a new workforce as a novice practitioner is stressful and maintaining positive mental well-being in the workplace enhances the capacity to provide safe quality healthcare.
- Little is known about changes in mental well-being and future workforce intentions of new graduate nurses and midwives (NGs) in their first year of professional practice.

What this paper adds?

- Findings show that the majority of NGs retained a moderate/high sense of well-being throughout their first year of their professional life.
- Providing a supportive environment, increasing resilience, self-efficacy and sense of achievement will enhance maintenance of positive mental well-being and retention of NGs in the workforce.

Key words: Career intentions, mental well-being, new graduate nurses and midwives, transition, workforce

INTRODUCTION

Nurses and midwives comprise almost 50% of the health workforce world-wide.[1] The recruitment and retention of new graduate nurses and midwives (NGs) has been one of the key areas of discussion to promote and sustain the health workforce.[1,2] With the COVID-19 pandemic, the importance of the nursing and midwifery workforce to the provision of healthcare has been highlighted.[3] Mental well-being has been acknowledged as a significant factor that can impact the NGs' ability to provide safe, quality care to patients and influence their desire to remain as part of the health workforce.[4,5] Staffing challenges are often critical, not only in metropolitan regions, but also in rural and remote areas.[2] Ensuring a positive sense of mental well-being amongst staff is a vital part of managing the health workforce, and efforts to increase NGs' well-being and gain insight into their future intentions are valuable for strategy formation.[5] A number of studies have revealed that organisational socialisation of NGs in their first year was often related to mental well-being.[6-8] Efforts to improve organisational socialisation such as transition programs for NGs, orientation programs, and personal support were reported in many studies.[9-11] However, little is known about changes in mental well-being and future workforce intentions of new graduates in their first year of professional practice. This paper aims to address this gap by inviting beginning practitioners in a large Australian public healthcare organisation to participate in a survey about their well-being and future intentions.

BACKGROUND

Positive mental well-being enhances the effective functioning of individuals and organisations by allowing individuals to realise their ability to cope with the moderate stresses of life, to work productively and make a contribution to their workplace and profession.[4,10,11] In health service settings, individual staff well-being enhances the quality of care provided and job satisfaction.[10] However, the transition into new workplace environments by NGs is characterised as an uneasy journey that can be a stressful experience.[12-14]

A number of different transitioning experiences have been described in attempts to explain the mental/emotional state of NGs in the workforce. Krozek described the psychodynamics of NGs as a mismatch of reality and expectations, overwhelming feelings of incompetence and a lack of confidence.[7] He further explained that these psychodynamics impact on the behaviour and performance of NGs. These emotions can negatively influence the mental well-being of NGs during the transition into their roles in the health workforce. In developing the theoretical framework of role transition of NGs, Duchscher and Kramer summarised the transition process of NGs into the workforce as one of "transition shock" or "reality shock".[15,16]

Several studies have investigated factors that impact the well-being of NGs. Most studies use cross sectional study designs, some use mixed methods and prospective cohort designs.[13,18-21] A cross sectional study of 420 Canadian NGs

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revealed that three factors influencing NG well-being were job demands (workload), job resources (supportive practice environment), control and personal resources (psychological capital).[17] Other authors suggested that organisational support and the display of caring behaviours by colleagues positively impacted NGs' mental well-being and influenced their job satisfaction levels.[10,22,23] However, others suggest that the personality of an individual influences the person's subjective perception of well-being.[24,25] Damodaran and Raj provided insights that demonstrated individual perceptions such as the meaningfulness of work, competence, helping, supporting and the level of a respectful work community, together with reasonable preconditions of work, were all significant factors that influenced NGs' overall sense of mental well-being.[24] A recent, national cross sectional study of 3,005 Australian nurses and midwives about workplace climate and well-being, indicated experiences of lower engagement in decision-making in work-related concerns and management, impacted on their well-being.[5] It was also revealed that 25-30% of nurses and midwives in this study intended to leave their profession, possibly resulting from high levels of workload demand and challenges with managing emotions at work.[5]

Despite increasing discussions about the well-being of NGs, there is limited literature about how the well-being of NGs might change as they transition into the workplace and what effect their well-being may have on their future career movement. The mental well-being of NGs is a concern for healthcare organisations as they are constantly being challenged to maintain a committed, competent and fully functioning workforce, given the nursing and midwifery workforce shortage in Australia.[2] This has been a cause of concern for the Local Health District (LHD) where this study was undertaken. As a part of sustaining its workforce each year, this LHD recruits more than 215 NGs at 21 metropolitan, rural and remote healthcare settings. They are recruited on a one-year temporary contract with two intakes (usually February and July each year) via the New South Wales (NSW) Health, Transition into Professional Practice (TPP) program.[26] The TPP is a program to assist NGs to transition into the workforce by providing a range of targeted supports such as an orientation program, supernumerary days, professional development days, and additional support from new graduate coordinators and mentors during 12 months of the TPP as described by Ohr et al.[9]

With the nursing and midwifery workforce crisis, sustaining the mental well-being of NGs during their transition into the workforce may contribute to intentions for career movement. This study was designed to explore and better understand the mental well-being of NGs during their first year of professional practice and their intentions concerning career movement.

STUDY DESIGN AND METHODS

Design: This study used a cross-sectional design with a survey administered at two time points.

Setting: A geographically large LHD in New South Wales (NSW), Australia that provides health services to over one million people in 21 acute and community healthcare settings in metropolitan, rural and remote locations.

Participants: 170 NGs (155 Nurses and 15 Midwives) who commenced their Transition into Professional Practice program (TPP) in February 2017 were asked to participate in the study which involved completing an online survey about their experiences as a NG.

DATA COLLECTION

Data were collected via an online survey. A link to the survey was emailed to the NGs at two time periods. The first survey was administered at four to six weeks following commencement of the TPP (Group 1) and the second survey was administered at 10-11 months following commencement (Group 2). Participation was voluntary and completion of the survey was deemed consent to participate.

DATA COLLECTION TOOL: THE SURVEY

The link to the survey was emailed to the same group of 170 NGs at both time points. The survey responses were anonymous so responses from Group 1 and Group 2 were unable to be linked by respondent.

The first survey included questions relating to the onboarding program used to support NGs as well as a well-being assessment scale, the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS). The WEMWBS is a validated tool for the measurement of mental well-being.[27-31] The second survey included three components: WEMWBS, questions about future intentions after completion of the TPP and the type of tenure (full-time, part-time, or casual) preferred. WEMWBS was used with permission from the authors.[27] This validated tool was chosen as it was identified as a credible means of monitoring mental well-being at a population level by many authors.[28-30] The WEMWBS covers both hedonic and eudemonic aspects of mental health including positive affect (feelings of optimism, cheerfulness, and relaxation), satisfying interpersonal relationships and positive function (energy, clear thinking, self-acceptance, personal development, competence and autonomy).[27] The WEMWBS includes 14 positively worded questions with 5 point Likert-type responses, scoring from 'None of the time' (score 1), up to 'all of the time' (score 5). A higher WEMWBS score indicates a higher level of mental well-being.

TABLE 1: REPRESENTATIVENESS OF RESPONDENTS

		Total NGs (n=170)	Respondents (n=80)	P-value *
Age group	20-29 years	106 (63%)	53 (66%)	0.5
	30-39 years	38 (22%)	19 (24%)	0.8
	40+ years	26 (15%)	8 (10%)	0.3
Gender	Male	11 (6%)	2 (3%)	0.2
	Female	159 (94%)	78 (98%)	0.2
Location of employment	Metropolitan	115 (68%)	43 (54%)	0.04
	Rural	55 (32%)	37 (46%)	0.03

* p-value of difference between Total NGs and respondents

DATA ANALYSIS

The 14 individual item responses to the well-being questions were summed to create an overall total score per respondent, ranging from 14 to 70. Overall total scores were categorised according to the Santini et al. interpretation,[31] as follows:

- ≤ 43: low sense of well-being
- > 43-≤ 60: moderate sense of well-being
- > 60: high sense of well-being.

Overall mean scores were calculated for each time-point. Item mean scores were calculated for each of the 14 well-being items at each time-point.

Quantitative data were analysed using descriptive statistics and by comparing differences between Time 1 responses (Group 1) and Time 2 responses (Group 2) using inferential statistics (unpaired t-test for independent samples). Qualitative data (text data of the survey such as reasons given for their scores) were analysed by content analysis.[32]

ETHICAL CONSIDERATIONS

Approval to conduct this study was granted by the LHD Ethics Committee (HNEHREC Reference No: 16/12/14/5.14). Confidentiality was ensured by the survey being completed anonymously online.

RESULTS

One hundred and seventy NGs were invited to participate in the project. There were 80 completed responses (47%) at Time 1 (Group 1) and 44 completed responses (29%) at Time 2 (Group 2). The response rate for Group 2 was calculated after excluding 17 invitation emails which bounced back as "not deliverable".

REPRESENTATIVENESS AND CHARACTERISTICS OF RESPONDENTS

Table 1 shows no difference in representativeness of survey respondents compared with total NGs for age group and gender. A significant difference was noted in location of employment, with more survey respondents in rural areas and fewer survey respondents in metropolitan areas than the total NGs (p=0.035).

As seen in Table 2 characteristics of respondents in Groups 1 and 2, there were no significant differences in age group, gender, employment location (rural/metropolitan) and years of experience. There was a significant difference between respondents who had prior nursing/midwifery experience between Groups 1 and 2, with fewer respondents with prior nursing/midwifery experience in Group 2 (p=0.045).

MENTAL WELL-BEING ASSESSMENT

Mean (median) WEMWBS was 52.1 (52) for Group 1 and 48.7 (50) for Group 2 (mean difference=3.4, p-value for difference in mean scores = 0.02). The number of NGs with low well-being score increased from 9% in Group 1 to 34% in Group 2. For Group 1, 91% (n=73) of the respondents rated their total well-being assessment as above 44 (moderate to high well-being scores), compared with 66% (n=29) who scored above 44 in Group 2 (See Figure 1).

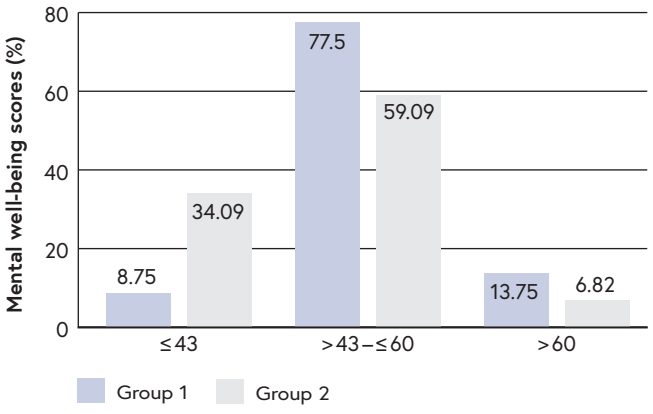

FIGURE 1: OVERALL TOTAL MENTAL WELL-BEING SCORES

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TABLE 2: CHARACTERISTICS OF RESPONDENTS

		Group 1 (n=80)	Group 2 (n=44)	P-value *
Age group	20-29 years	53 (66%)	30 (68%)	0.4
	30-39 years	19 (24%)	7 (16%)	
	40+ years	8 (10%)	7 (16%)	
Gender	Male	2 (3%)	2 (5%)	0.6
	Female	78 (98%)	42 (95%)	
Location of employment	Metropolitan	43 (54%)	24 (55%)	0.9
	Rural	37 (46%)	20 (45%)	
Prior N/M experience	Yes	60 (75%)	22 (50%)	0.045
	No	20 (25%)	22 (50%)	
Years of experience	<1 year	19 (32%)	7 (32%)	0.3
	1-3 years	28 (47%)	5 (23%)	
	>3 years	13 (22%)	10 (45%)	

** p-value of difference between groups 1 and 2*

ELEMENTS OF WELL-BEING ASSESSMENT

Table 3 shows that mean well-being scores of each item declined from the Group 1 scores to the Group 2 scores on every individual item. The summary scores significantly decreased from 3.1 to 2.9 (95% CI, P-value =0.04) from Group 1 to Group 2. This decrease was significant for two of the individual items, 'feel relaxed' (p=0.02) and 'interested in new things' (p=0.03).

ASSOCIATION OF FACTORS WITH WELL-BEING SCORES

Despite the overall total well-being scores being within the moderate range of well-being for both groups, there were no significant differences in total well-being scores between Group 1 and Group 2 for those with prior nursing/midwifery experience, nor for the number of years of prior experience. However, there was a highly significant decrease in overall total well-being score for respondents aged 20-29 years (p=0.03), being female (p=0.03) and located in rural locations, between Group 1 and Group 2 (p<0.01).

TABLE 3: MEAN MENTAL WELL-BEING ITEM SCORES

	Mean score (95% CI)		Mean difference	P-value *
	Group 1 (n=80)	Group 2 (n=44)		
I've been feeling optimistic about the future	3.9 (3.7, 4.1)	3.6 (3.3, 3.9)	-0.3	0.07
I've been feeling useful	4 (3.8, 4.1)	3.8 (3.5, 4)	-0.2	0.33
I've been feeling relaxed	3.2 (3, 3.4)	2.8 (2.6, 3.1)	-0.4	0.02
I've been feeling interested in other people	4.1 (3.9, 4.2)	3.8 (3.5, 4.1)	-0.3	0.12
I've had energy to spare	3 (2.7, 3.2)	2.8 (2.5, 3.1)	-0.2	0.4
I've been dealing with problems well	3.8 (3.6, 3.9)	3.6 (3.4, 3.8)	-0.2	0.24
I've been thinking clearly	3.9 (3.7, 4)	3.7 (3.5, 3.9)	-0.2	0.16
I've been feeling good about myself	3.8 (3.6, 3.9)	3.5 (3.2, 3.7)	-0.3	0.05
I've been feeling confident	3.6 (3.4, 3.8)	3.5 (3.2, 3.7)	-0.1	0.64
I've been feeling close to other people	3.6 (3.5, 3.8)	3.3 (3, 3.6)	-0.3	0.09
I've been able to make up my own mind about things	3.9 (3.7, 4.1)	3.7 (3.4, 3.9)	-0.2	0.11
I've been feeling loved	3.5 (3.3, 3.7)	3.4 (3.1, 3.8)	-0.1	0.82
I've been interested in new things	4.1 (3.9, 4.2)	3.7 (3.5, 4)	-0.3	0.03
I've been feeling cheerful	3.8 (3.7, 4)	3.5 (3.2, 3.8)	-0.3	0.06
Summary score	**3.1 (3, 3.2)**	**2.9 (2.7, 3.1)**	**-0.2**	**0.04**

* unpaired t-tests for independent samples

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TABLE 4: ASSOCIATION OF FACTORS WITH WELL-BEING SCORES [NB: NOT REFERRED TO IN TEXT]

		Mean total scores (95% CI)		P-value *
		Group 1	Group 2	
Age group	20-29 years	51 (49, 53)	47 (44, 50)	0.03
	30-39 years	55 (51, 59)	49 (42, 56)	>0.05
	40+ years	53 (45, 60)	54 (44, 65)	>0.05
Gender	Female	52 (50, 54)	49 (46, 51)	0.03
	Male	56 (**)	51 (**)	**
Prior NM experience	Yes	52 (50, 54)	50 (46, 54)	>0.05
	No	53 (50, 57)	48 (44, 51)	>0.05
Years of experience	<1 year	51 (47, 55)	49 (43, 55)	>0.05
	1-3 years	51 (48, 53)	48 (35, 61)	>0.05
	>=4 years	57 (53, 61)	51 (44, 59)	>0.05
Location of employment	Metropolitan	52 (49, 54)	51 (47, 54)	>0.05
	Rural	52 (50, 55)	46 (42, 51)	<0.01

* unpaired t-tests for independent samples

** Could not be calculated due to small sample size

Additional comments provided by the NGs (Group 1: n=11, Group 2: n=15) identified three main reasons for their well-being rating and those suggested were supportive environments, resilience and self-efficacy, and sense of achievement.

SUPPORTIVE ENVIRONMENT

The respondents stated that they found the early period of their work was "extremely stressful" (Metropolitan area). Six respondents commented that a supportive environment was one reason for their scores of well-being at the initial stage of their professional work.

> *"Having supportive and encouraging staff on the ward has been absolutely enormous (crucial really) in my well-being. They celebrate small victories with me and offer support during tough situations."* (Group 1, Metropolitan area, Moderate well-being)

> *"Feeling as though the ward appreciates, accepts and supports you makes a huge difference to your well-being and contribution to the workforce."* (Group 1, Metropolitan area, Moderate well-being)

> *"Supernumerary shifts are important and useful, however on a ward base level its essential they are pairing new staff with approachable individuals who understand it's a nerve-racking experience and we are trying to build our confidence as new RNs."* (Group 1, Metropolitan area, Moderate well-being)

Furthermore, all six respondents from rural areas and one from a metropolitan area in Group 2 identified an unsupportive environment, lack of authentic leadership, bullying and a lack of learning opportunities as the main reasons for their scores.

> *"Very stressful at wards, a lot of personalities to contend with as well as some bullying and discrimination. Not enough staff at times and no support from managers to help with same."* (Group 2, Rural area, Moderate well-being)

> *"As a new graduate midwife I was unsupported at the hospital …by the educators and manager. I don't ever remember the educators introducing themselves to me. In fact, they often ignored me and only spoke to me when they wanted to tell me I'm doing something wrong which was often in front of patients. I felt bullied and ostracised. The only support I received was from the midwives who weren't educators or put in a position to support me. I often went to the manager and explained what was happening and she told me "I can see we are breaking you down" and didn't make any changes. I also told the manager about one particular educator who was yelling at me in front of patients and the manager said "we have no tolerance for bullying but if you treat her like she is your mother she will mother you". I felt trapped and was becoming depressed."* (Group 2, Rural area, Low well-being)

> *"Learning opportunities came from the time spent with Clinical Nurse Educators. When funding has been cut from providing an educator for XX wards, learning experiences were rushed by the staff on the shift."* (Group 2, Metropolitan area, Moderate well-being)

More than 37% of the respondents in Group 2 were mature age nurses and midwives. The comments by these respondents indicated they felt that they were discriminated against due to their age.

> *"The younger staff made me feel as though I was past my 'use-by' date and had no place in their organisation. There were comments about older staff being 'set in their ways' and not moving with the times. These comments were made during my*

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orientation-before I even had a chance to show them my own skills or lack thereof!" (Group 2, Rural area, Low well-being)

"The nursing staff took an instant dislike to me and would not assist me at all. I did my best and worked hard, but I felt because of my white hair, I was doomed from the start." (Group 2, Rural area, Low well-being)

RESILIENCE AND SELF-EFFICACY

Eleven comments were related to personal resilience and self-efficacy that was required to help cope with the transition process into the work environment and being resilient and confident contributed positively to their well-being.

"I have found it really hard to have a work/life balance. Working full time and being engaged all of the time is exhausting. After I leave work I hardly have the energy to do anything at home as I need to recover from the day and rest. Sometimes I feel like I burn the candle at both ends by doing too much. Taking the time out for ourselves is so important and needs to be a high priority, we need to make time for ourselves." (Group 1, Rural area, Moderate well-being)

"I think this is personal...some people are more confident than others...some like me set too high of a standard for themselves so found it very difficult while learning how to best care for patients under my care to complete all the tasks required on time." (Group 1, Rural area, Moderate well-being)

"As I started my first rotation in the HDU [high dependency unit], I felt very overwhelmed however I have gained confidence as I have realised my abilities and been offered excellent support by other staff." (Group 1, Metropolitan area, High well-being)

SENSE OF ACHIEVEMENT

Four respondents from metropolitan areas at Group 2 talked about their sense of achievement as a significant reason for their current mental well-being.

"I feel that this year has taught me how to appropriately deal with new issues and problems, I know who to ask for information and education and where to look up policies and procedures." (Group 2, Metropolitan area, Moderate well-being)

"I finally feel like my future has started since finishing university and that I am a real adult - it feels good." (Group 2, Metropolitan area, Moderate well-being)

FUTURE INTENTIONS OF GROUP 2

As the Group 2 survey was conducted at the end of the first year of the professional work, the NGs were asked about their intention for future career movement. As Table 4 describes, 40 respondents (91%) said that they were likely to continue working in their current LHD. Despite this, 13 respondents (30%) stated that they would look for a job outside of the current LHD. Respondents with higher overall total well-being scores indicated that they were more likely to stay at their current workplace (p=0.028) and were significantly less likely to seek employment in another LHD or the private sector (p<0.01). Only 14% of respondents indicated their intention to leave the nursing or midwifery profession. Seventy per cent of respondents were interested in pursuing employment in speciality or critical care areas or pursuing a 2nd year professional practice position. Eighty per cent of respondents in rural areas and 38% of respondents in metropolitan areas showed a willingness to remain in their current geographical areas and 70% of respondents indicated they wanted permanent full-time tenure.

TABLE 5: NGS FUTURE INTENTIONS (N=44)

Intention	Likely/ Very Likely	Neutral	Unlikely/ Very unlikely
Work at current LHD	91% (40)	0% (0)	9% (4)
Seek employment outside the current LHD	30% (13)	34% (15)	36% (16)
Leave profession	14% (9)	9% (4)	77% (34)
Seek employment in speciality or critical areas	74% (32)	14% (6)	14% (6)
Seek employment in general areas	48% (21)	18% (8)	34% (15)
Willingness to work in rural/remote areas	57% (25)	25% (11)	18% (8)
Seek a 2nd year transition to professional practice position	66% (29)	9% (4)	25% (11)

DISCUSSION

The findings of this study suggest that the overall total well-being scores of the majority of respondents were within the moderate or high range for both groups: Time 1 responses (Group 1) and Time 2 responses (Group 2). However it is a concern that more than a third of the respondents (34%) in Group 2 had low well-being scores. While some authors described NGs as having transition shock, and experiencing stress and challenges in the beginning of their first year of practice, the moderate to high well-being scores among Group 1 in our study may have been influenced by the NGs' excitement about securing employment or their euphoric state of becoming a professional nurse or midwife.[15,25,33] However, a decrease of well-being scores in the later stage of the first year of entering the workforce in Group 2 could be attributed to the need to look for future employment, as most contracts had temporary employment tenure.[33,34] Other reasons may be a lack of professional opportunities or the burnout that some NGs experienced during their work life as explained by a study of 1,228 nurses from Australia and the USA.[21,22] Further, mental well-being could be affected by the nature of nurses' and midwives' work which is acknowledged as physically and emotionally demanding.[5, 25, 35]

Similar to Päätalo and Kyngäs and Holland et al., both organisational and personal factors that influenced the well-being of NGs were identified.[5,25] The well-being of NGs was influenced by a negative environment such as one in which bullying, discrimination, offensive behaviours, and inadequate personal support were present. Building a supportive and respectful workplace may enhance the well-being of NGS. Further, as asserted by Gruman and Saks, well-being was also influenced by an individual's resilience, self-efficacy and a sense of achievement.[11] Building resilience and self-efficacy may provide NGs with greater ability to act and perform tasks and to recover from challenges such as adversity, uncertainty, failure and overwhelming changes that they face.[23] Increasing well-being may enhance resilience and mental health.[36, 37] Understanding the psychodynamic coping strategies of NGs and improving organisational socialisation may make a difference in the success of the transition and well-being of NGs.[7,11] As suggested by Thomas and Revell, building resilience and self-efficacy of nurses and midwives requires support, time and empowerment.[38] The strategies for increasing these factors should be considered in the LHD strategies to improve the well-being of NGs, particularly focusing on those in younger age groups and located in rural areas.

This becomes paramount when aiming to increase the sustainability of the nursing and midwifery workforce which can present its own challenges, especially in rural areas. With organisational socialisation being emphasised as a crucial component to assist new employees to transition into the workforce, assisting a better socialisation among NGs may improve their well-being.[9,39-41] Organisational strategies such as orientation programs, personal support by mentors and managers throughout the first year of their professional life remain important in enabling NGs to maintain a positive sense of well-being. This in turn may support the long-term sustainability of the LHD workforce.[6,7,9] Furthermore, other strategies such as allocating responsibilities to match the skill set of NGs, acknowledging them as beginner practitioners, and encouraging a sense of "a job well done" may assist their transition, and improve their well-being. Increased NG well-being in their first year of professional practice may increase the ability of health services to foster better career planning and may contribute to a lower turnover of NGs in the future.[40,41]

Further research about understanding the mental well-being of new graduate nurses and midwives during the COVID pandemic is needed if we are to continue to develop effective strategies to sustain the Australian nursing and midwifery workforce.

LIMITATIONS AND STRENGTHS OF THE STUDY

The findings of this study may not be generalised to NGs in other LHDs as the study population was small and sourced from only one LHD in NSW, Australia. While the difference in well-being scores between Group 1 and Group 2 was statistically significant it is important to note that the scores remained in the moderate mental well-being range, therefore the noted change may be of limited clinical significance. The survey method may have limited the insights gained from this study as respondents only had opportunities to provide written responses to open-ended questions. Methods such as individual interviews or focus groups would have been beneficial for further investigation of the reasons for the well-being scores. Despite the limitations, this study presents new knowledge about the mental well-being of new graduate nurses and midwives in different stages of their first professional year.

CONCLUSION

This study has provided further insight into changes in the mental well-being of NGs as they transition into professional practice and adds to the body of knowledge in this area. This study identified a deterioration in well-being between Group 1 and Group 2 despite being recruited to a specially developed transition to professional practice program. Understanding the needs of this workforce group and the impact their future career intentions can have on workforce sustainability is critical. Further investigation into the well-being of NGs and further development of strategies to promote well-being and future retention of nurses and midwives is highly recommended. The need to provide ongoing and high-quality support to enhance NGs' well-being and facilitate higher levels of professional capability was highlighted. Policy makers, educators and healthcare managers need to act on a notion that organisational support is paramount in building resilience and self-efficacy of NGs and sustaining a positive sense of well-being. These are the key elements to improving the capability of the nursing and midwifery workforce, increasing job satisfaction for NGs and promoting the delivery of quality healthcare.

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RESEARCH ARTICLES

The region-wide implementation of a relationship education program for first time parents delivered in the maternal and child health care setting: evaluating reach and effectiveness

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ABSTRACT

Aims: To present the results of a region-wide evaluation of *Baby Makes 3*, a brief relationship education program for first time parents implemented in the maternal and child health setting.

Background: The program is designed to utilise the 'teachable moment' provided by the birth of the first child, and strengthen the couple relationship, promoting gender equity and preventing intimate partner violence. The literature contains only a few similar examples, none of which have been implemented on a region-wide scale in a rural context.

Participants: First time parents in the Great South Coast Region of Victoria, irrespective of whether they had participated in *Baby Makes 3*, group facilitators, and other stakeholders involved in the program across the region including maternal and child health nurses.

Methods: Interviews were conducted with parents, group facilitators and other stakeholders. Routinely collected surveys completed by parents and group facilitators were also analysed. Data was collected throughout the period April 2013 to August 2015.

Findings: Fewer than one-third of new parents in the region participated in *Baby Makes 3*. Parents, group facilitators and other stakeholders all made suggestions as to how program reach could be improved. These included the need to take account of key components of rural life including farm work and not clashing with sporting activities. Nevertheless, for those who participated, the program was judged highly effective according to both parents and staff. Additionally, parents valued the social interaction generated by the program as an outcome in itself, connected to the value of the program in normalising the challenges they were facing as new parents. Minimal negative effects were identified.

Discussion: Transition to parenthood is a time when many parents are open to exploring gender roles and expectations within their relationships, especially in a context in which the challenges of parenting are normalised. However, the implementation of such a program which has been designed in an urban context may require modifications when delivered in a rural area.

Conclusion: Parenting programs are just as necessary in rural as in urban contexts. Furthermore, modifying the program to commence prior to the birth of a child further work may improve program reach.

What is already known about this topic?
- The birth of the first child, has been found in urban settings, to be a time when parents are open to brief interventions which lead to improved awareness, communication skills, attitudes and behaviours supportive of gender equity and a strengthened couple relationship.

What this paper adds:
- Programs which promote gender equity and respectful relationships are beneficial to new parents in rural areas, but effective implementation requires taking into account the characteristics of local communities.

Keywords: Maternal and child health; nurses; midwives; gender equity, relationship education; prevention of intimate partner violence; rurality

INTRODUCTION

Gender roles and relations become more traditional in the year following the first child's birth.[1] This can create power imbalances in relationships between men and women, including couples who previously professed little support for traditional gender roles.[2] When life circumstances are such that people are particularly receptive to new knowledge, prompting reflection on attitudes held and consideration of behaviour change, a "teachable moment" emerges.[3,4] One such teachable moment is the transition to parenthood.[5,6] Programs like *Baby Makes 3*, are explicitly designed to target this time when parents-to-be often seek out information to prepare for and respond to the arrival of a new family member, and are likely to be motivated to make changes and/or have the opportunity or capacity to do so.[5]

Hence, a brief, three session program that focuses on strengthening the couple relationship, by promoting gender equity, was developed. As such, *Baby Makes 3* is one of very few relationship education programs specifically designed to prevent violence against women who are mothers.[7-10] These contrast with the growing proliferation of programs aimed at parents which focus on the parent-child relationship, child development, and seek to enhance parenting skills and confidence in parenting.[11-13] If relationships are explored, this tends to be around the extent of conflict around parenting practices.[14]

That most programs for new parents place little emphasis on their relationship is unsurprising. Unlike *Baby Makes 3*,[15] most programs for parents are typically aimed at mothers, with the involvement of fathers not considered essential.[14,16,17] Even if they are interested, program design and delivery often prevent fathers from participating.[18]

Some programs focus on "hard-to-reach" or high-risk groups rather than on all new parents. *Baby Steps*,[7] developed and implemented in the UK, begins with referral or self-referral in early pregnancy. The American *Young Parenthood Program* is the most different to *Baby Makes 3*, being based on 8-12 weekly sessions delivered to couples in the antenatal period by a counsellor aimed at promoting positive relationship skills, following an assessment process that included interview-based screening for the occurrence of intimate partner violence (administered to parents in separate meetings).[8] This is an example of a program based on assessment followed by tailored education, as opposed to the broadly curriculum-based knowledge and skills training of other programs.

Baby Makes 3 was originally developed by Whitehorse Community Health Service (now Carrington Health) and the City of Whitehorse in metropolitan Melbourne to complement existing new parent programs run by maternal and child health services which are usually attended by mothers and focus on aspects of child health rather than the parental relationship.[2] The program, which seeks to prevent violence by promoting respect and equality between couples, is premised on evidence that addressing gender inequality is critical in addressing, including preventing, gender-based violence.[19] By being offered to all first-time parents by maternal and child health staff, it engages with couples at this critical time, many of whom found the program enabled them to adopt greater equality in their relationships. As such, the initial *Baby Makes 3* program was found to be an effective and cost-efficient violence prevention strategy.[2]

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The current study offered an opportunity to investigate the implementation of *Baby Makes 3* in the five local government areas (LGAs) in south-western Victoria, which form the Great South Coast Region (Warrnambool City Council, Corangamite Shire, Glenelg Shire, Shire of Moyne, and South Grampians Shire). This region comprises 10% of Victoria's landmass but less than 2% of the population.[20] As such it is relatively sparsely populated with distances of up to 100 km between major centres within the region. Programs developed in urban contexts often face different challenges when implemented in rural and regional settings,[21] prior to this study how *Baby Makes 3* would work in a rural context was unknown.

Baby Makes 3 was delivered as an opt-out program, forming part of a series of sessions offered to new parents in each of the LGAs after the birth. The positioning of the three *Baby Makes 3* sessions in the new parent groups varied over the course of the project and between LGAs. *Baby Makes 3* sessions were offered in the early evening, usually at the maternal and child health centres, whereas the rest of the new parent group sessions were delivered in the daytime. The program consists of three sessions, facilitated by a mixed gender pair of facilitators.

Information about *Baby Makes 3* was usually distributed as part of the information offered on new parent groups by maternal and child health nurses following the birth of the child. One variant which was trialled in Glenelg Shire involved a single session in antenatal classes, as a way of introducing future parents to the post-birth groups. Information about *Baby Makes 3* was offered verbally and/or in written form (practices varied according to LGA) and reinforced during further contact with maternal and child health services; the project manager or *Baby Makes 3* group facilitators would often attend one of the new parent group sessions to introduce the program and answer questions. Single parents were not excluded from *Baby Makes 3*. This was a deliberate decision, made in view of the lack of other groups available, and to allow them to focus on past and/or future relationships.

THE STUDY

AIM

The aim of the study was to evaluate the region-wide implementation of the *Baby Makes 3* program in a non-metropolitan setting over the years 2013 to 2015.

DESIGN

The overarching framework used was that of theory-based evaluation drawing on elements of realist and theory of change evaluation.[22-24] The longitudinal, mixed-methods study employed a fully mixed concurrent equal status design,[25] where the timing of the different components of the evaluation was deliberately selected to minimise potential sources of bias and avoid compromising response rates to surveys. The design enabled the exploration of outcomes during the three years, and also gathered data to explore and understand how and why the particular patterns of outcomes came about, including factors in the wider context that were important either positively or negatively. The evaluation used data from: interviews with parents, group facilitators, and other key stakeholders in the program including maternal and child health nurses; surveys completed by parents and facilitators; and routinely collected data. It examined the impact of *Baby Makes 3* on new parents and the uptake of the program across the region, and explored the program delivery factors that underlay these outcomes.

PARTICIPANTS

All first-time parents in the Great South Coast Region, irrespective of whether they had participated in *Baby Makes 3* were invited to participate in interviews about the program. Invitations to participate were distributed by program staff, and names and contact details only provided to the researchers by individuals who wanted to be interviewed. Similarly, the regional coordinator distributed invitations to be interviewed to all group facilitators and other key stakeholders.

Surveys of all parents were conducted at the end of the third session and of all facilitators of *Baby Makes 3* groups after each group session.

DATA COLLECTION

A summary of the six data sets used in the analysis reported in this paper is shown in Table 1. Details of the data collected in each set, and when the data was collected, are described below.

INTERVIEWS

All interviews were carried out by telephone, digitally recorded and then transcribed by a specialist firm. Immediately following the interview, the interviewer recorded post interview notes on anything that struck them particularly about the interview and on positive features of the program and any difficulties/challenges. Transcripts were checked and anonymised by the interviewer, prior to analysis.

For the interviews with parents, a mixed gender team of interviewers was used, with gender matched to interviewee wherever possible. Interviews with parents were carried out using a topic guide with sections on: receiving the invitation to participate and making the decision whether to attend or not, for those parents who did not attend at all or attended only some of the sessions the reasons were explored and what, if anything would have made their decision different; expectations on new mothers; changes if any in who does what at home; how has your relationship with your partner

TABLE 1: THE DIFFERENT DATA SETS USED IN THE EVALUATION

Data set	Features, including sample size and response rate	Time period over which data collected
1. Interviews with parents	Invitations sent to **all** new parents, via the mother; 40 interviews in total. Response rates of approximately: 6.4% women, 3.6% men. Included varied levels of attendance at the program, and time since program received, from one month up to 15 months.	February to June 2015
2. Interviews with parents who attended antenatal session	Recruited from those attending antenatal session; four interviews in total, , response rate approximately 10%.	August to October 2015
3. Interviews with *Baby Makes 3* facilitators	Invitations sent to **all** trained facilitators who had facilitated at least one complete program; 10 interviews in total, representing a response rate of 56%.	July and August 2015
4. Interviews with maternal and child health staff and other stakeholders	10 interviews in total, response rate approximately 30%.	February-March 2014 and September 2015
5. Parent survey	Filled in at end of third session of program; n=342 (response rate high, over 90%)	May 2013 and October 2015
6. Facilitator survey	Completed after each session; 87 sessions across 32 deliveries of the program (response rate 91%)	June 2013 to March 2015

changed, if at all, since the birth; changes in your and your partners lives since the birth; for those who attended at least some of the program: the changes, if any, the program made for your situation, most important thing about the program for you, for your partner. For those parents who attended an antenatal session as well, an additional section was added to the topic guide at the beginning which explored views of the antenatal session. Interviews with parents lasted between five and 45 minutes with an average length of 21 minutes for mothers and 13 minutes for fathers.

Interviews with group facilitators were carried out using a topic guide with sections on: the extent of their involvement as a facilitator; perspectives on the aims and objectives of the program; what has worked well in terms of component design and implementation and any views on the key factors responsible; any difficulties that have been encountered in terms of design or implementation and how these might be addressed; whether the program is reaching the target group in a uniform fashion; future development. The interviews with group facilitators ranged in length from 30 to 60 minutes.

Interviews of a similar length were carried out with other program stakeholders using a topic guide with similar sections to those for the facilitators except that the nature of their involvement with the program was also explored. In discussing their views on the remaining sections they were encouraged to reflect on what they had heard from facilitators and parents who had attended the program.

Parent survey

The data collected was limited to 10 questions. Seven were closed questions: session date; location; mother or father; level of agreement with three statements about the enjoyability, relevance and helpfulness of the program, each measured on a 5 point Likert scale; overall rating of program, choice from 5 point scale (excellent to poor). There were three open questions: three main things I have learned from this program; how would you describe this program to another person who was thinking of doing it; any additional comments. Surveys were completed at the end of the third session, collected by the facilitators and forwarded to the regional coordinator.

Facilitator survey

Each pair of group facilitators completed the facilitator survey at the end of every program session. The data collected included six open questions on: practical issues that need to be addressed; session highlights/strengths; areas for improvement; challenges and how they were addressed; concerns; general comments. Numbers of mothers and fathers attending were also recorded and sent to the regional coordinator.

ETHICAL CONSIDERATIONS

Ethics clearance was granted by Deakin University on 15 May 2014 for the interviews with parents (project reference HEAG-H-58_2014) with an amendment dated 31 March 2015 to cover interviews with parents who attended the antenatal session offered in Glenelg Shire; and on 14 April 2015 for the staff interviews and other data analysis comprising the summative evaluation (project reference HEAG-H 36_2015).

DATA ANALYSIS

A mix of descriptive and inferential statistics was used to analyse quantitative data. Excel 2013 was used to support quantitative data analysis.[26] A conservative significance level of 0.01 is used for reporting results as statistically significant.

A combination of deductive and inductive thematic analysis was used to analyse qualitative data from interviews and open questions on surveys and questionnaires.[27,28] Nvivo, version 10 was used to support qualitative analyses.[29]

VALIDITY AND RIGOUR

The evaluation used a wide range of different sources of data, allowing for triangulation between different sources in order to test validity through convergence from different data sources. For each of the different data sets, a single member of the research team carried out the qualitative analysis, which was then checked and agreed by other team members to ensure validity and rigour.

RESULTS/FINDINGS

Basic characteristics of the samples are summarised in Table 2. A deliberate decision was made not to collect socio-demographic data (beyond gender), given concerns about the burden of data collection, the possible perceived intrusiveness of questions and likely interference with building rapport in an interview situation, thereby risking comprising the richness of data obtained from the interviews.

TABLE 2: CHARACTERISTICS OF SAMPLES

Data set	Total sample size	Number of males	Number of females
1. Interviews with parents	40	14	26
2. Interviews with parents who attended antenatal session	4	1	3
3. Interviews with *Baby Makes 3* facilitators	10	6	4
4. Interviews with maternal and child health staff and other stakeholders	10	1	9
5. Parents' views immediately post-program	342#	156	185
6. Facilitator session evaluation	87*	*	*

one parent did not indicate gender

* each survey form was filled in by the pair of facilitators who ran the session (always one male and one female)

TABLE 3: THE REACH OF *BABY MAKES 3* IN THE GREAT SOUTH COAST REGION

Overall reach	No. parents completing third session	Completion rate	No. parents participating in at least one session[1]	Involvement (partial completion) rate
1 April 2013 to 31 March 2014	162	18%	234	26%
1 April 2014 to 31 March 2015	111	12%	186	21%
By local government area				
Warrnambool and Moyne[2]				
2013–14	81	17%	108	23%
2014–15	67	13%	89	18%
Glenelg				
2013–14	24	13%	49	27%
2014–15	14	10%	34	24%
South Grampians				
2013–14	31	21%	51	35%
2014–15	19	14%	38	29%
Corangamite				
2013–14	26	29%	26	29%
2014–15	11	9%	24	21%

Notes

1. Calculated from the maximum numbers attending in a program. Note that this will be an underestimate since sometimes parents missed session 1 and/or 2 but attended later sessions

2. From January 2014, parents in Moyne were invited to attend the program in Warrnambool, so results are presented for the two LGAs combined.

PROGRAM REACH

The reach, or uptake, of the program was calculated for two successive 12-month periods, see Table 3. The table contains two slightly different measures of reach, completion and involvement (or partial completion) by comparing participants with birth registration data for first time parents in each LGA. The first of these is based on the number of parents who completed the third session of the program; the second is based on an estimate of the number of parents who completed at least one session of *Baby Makes 3*. This second measure of reach is an underestimate, but it is not possible to improve on it, since full registers of attendance at each session were not maintained.

The overall completion rate for the program in 2014–15 was 12% of new parents, with variation by LGA from 9% to 14%. The overall involvement rate for the program was 21% of new parents, with variation by LGA from 18 to 29%. The decreases in completion and involvement rates from 2013–14 to 2014–15 are most likely caused by a combination of the reduced accessibility of program sessions (with parents in Moyne having to travel further to attend) and the inability to run any programs in Corangamite in 2015 owing to low birth numbers.

Accurate calculation of the representativeness of those who participated in *Baby Makes 3* is not possible given the data available. Such information is obtainable only from the interviews carried out with parents who participated in the program, with program facilitators and with maternal and child health staff. All of these sources suggested under-representation in the same specific groups: Indigenous parents; young parents; and parents with lower socio-economic status. However, none of these groups was completely absent from the program.

Understanding and improving reach

Data analysis suggests a number of factors that are responsible for the level of reach obtained. Interviews with parents, facilitators and stakeholders all recognised the barriers posed by the distance and time required to travel to *Baby Makes 3* sessions, as did feedback given on the parent surveys.

The program was deliberately run in the early evening to facilitate the attendance of fathers, and while there is no doubt that the timeslot was more convenient than one during the day (the timing of new parent groups), travel in the evening around the time that parents are trying to establish as bath and bed time was not ideal for many and was particularly unpopular in winter months. There were also significant difficulties for those involved in shift work, farm work, fly-in fly-out working or sporting activities. Offering the program at weekends was suggested by a number of parents and facilitators, although most considered that no single solution would suit everyone. Delivering the whole program in a single day was also suggested but this would remove the opportunity for "homework" between sessions, something that parents reported benefitting from. Others suggested delivering it in two weekend sessions, separated by two or three weeks.

Another barrier to involvement was lack of information about the program and what it would involve. For those who had chosen not to attend new parent groups (39% of new mothers in 2013–14 and 35% in 2014–15 across the region), the only source of information about the program was the written or verbal information from maternal and child health about new parent groups and the integrated *Baby Makes 3* sessions. The interviews with parents eligible for *Baby Makes 3* who did not attend demonstrated that this did not always succeed in communicating the availability of the program.

PROGRAM EFFECTIVENESS

This section examines the impact on important outcomes, including potential negative effects. Different sources of data have provided a wealth of evidence that parents who attended the program received a variety of benefits from it. Throughout this section, data from interviews with parents and facilitators is used as well as data from the parent and facilitator surveys. The interviews with parents are a particularly important source of data here because the vast majority of parents who had attended were interviewed at least three months after the end of the program and in some cases up to 15 months after. This meant they had had a good amount of time for any learning and skills development to have an impact on them and their relationship. The changes they reported were highly consistent with those reported in the parent survey completed by parents at the end of the third session, indicating that the short-term impacts reported immediately following program completion were maintained in at least the short to medium term. Table 4 summarises the key findings against the indicators set out in the *Baby Makes 3* theory of change model.[2]

Baby Makes 3 received positive feedback from the overwhelming majority of parents interviewed who had attended at least some of the program as well as from the overwhelming majority of the parents completing the survey at the end of the final *Baby Makes 3* session: 98% overall rated the program as good, very good or excellent; 94% agreeing or strongly agreeing that the program was helpful and 96% agreeing or strongly agreeing that the program was enjoyable. The following quotes are typical of their overall view of the program:

> *I was really impressed with it, probably because I hadn't really been in a group situation like that before. I definitely enjoyed the parts where the men were separated from the women and then they were brought back into the room to discuss the same answers, and that was really insightful. . . . I've kept in touch with a couple of blokes from the course . . .. [People] shared*

TABLE 4: SUMMARY OF EVIDENCE AGAINST INDICATORS FOR THE *BABY MAKES 3* THEORY OF CHANGE MODEL

Indicator	Major themes identified from parent survey and interviews
Awareness	That other parents experience the same problems/challenges Society's expectations of mothers and fathers
Communication	Learnt specific communication skills: • communicating using "I" rather than "You"; • understanding one's partner's perspective; and • listening.
Attitudes	"Equal" does not mean "same" Respect for partner's contribution Recognising importance of partners' time together and building/maintaining intimacy Recognising importance of father's time with child Mothers adjust expectations of themselves
Behaviours	Sharing tasks Working as a team Discussing difficult issues Using problem solving and conflict resolution as particular relationship skills Fathers spending more time with children Enhanced intimacy of and focus on couple relationship

> *some brilliant stories and some great experiences and that time to actually tell their story I think was really cathartic for a lot of people, and added to that growing sense of confidence, that things are going to be all right and that we're doing the right thing.* (Father, interview)

> *Fantastic. Opened my eyes to focusing more on our husband-wife relationship.* (Mother, parent survey)

An impact reported as important by parents in interviews, and reflected explicitly in one of the quotes above, was the social connections parents made, and maintained, as a result of participating in *Baby Makes 3*. This was also reported on the parent surveys completed at the end of the third session, and was commented on by several facilitators when they reflected on the value of the program. Improved social connectedness is important for protection and promotion of health, and is particularly key for those living in rural and regional contexts. This impact was not identified in the original theory of change underlying the program.[2]

Important changes included awareness of societal expectations of mothers and the extent of caring and domestic responsibilities assumed by mothers. Mothers reported that they had gained an awareness of the high expectations they placed on themselves, which were not necessarily reflective of expectations placed on them by others. Many mothers realised that they needed to judge themselves less harshly, that they would not necessarily be able to achieve as much as they had previously expected to. Prior to attending *Baby Makes 3*, many of the fathers had not realised the societal expectations placed on new mothers. As a result of this realisation, some fathers reported that they were better able to support their partner.

Other important impacts reported in interviews with parents were experienced within the couple relationship, with parents reporting enhanced communication and conflict resolution skills, and an increased focus on the couple relationship. This strongly reinforces the data from the parent surveys and offers reassurances that the learning about communication and conflict resolution skills reported immediately after the final sessions (which focused on these skills) is not merely an effect of short-term recall or social desirability bias. Interviews with facilitators also reinforced the value of the program in terms of stimulating increased discussion within couples on topics not previously discussed.

These in turn produced changes in behaviour, such as mothers adjusting their expectations of themselves, and fathers prioritising family over work and contributing more towards household tasks and childcare. All of these positive changes can be seen as supporting increased gender equity. The most common change in behaviour reported was that the father helped more with household and caring tasks, although the mother still did most:

> *Well I think there was the graph shown of how much dad time and how much mum time and how much together time with the baby, and I think that's been quite — [partner's name]'s been quite aware of that, so he's sort of — after the sessions he sort of made more time to have one-on-one time, like he gets up in the morning with the baby and I stay in bed and he has that one-on-one time before he goes to work, so that sort of started after that, and I think it's his little mission to not fall into that percentile.* (Mother, interview)

Fathers talked about how recognising the expectations put on mothers enabled them to better support their partner, and to function as more of a team, as one of the fathers expressed it:

> *Yeah, the other thing I think that really helped us just understanding regardless of how much we share the roles and the duties, the expectation on [partner's name] . . .so I think I was just able to support her a little bit more by understanding that, if that makes sense.* (Father, interview)

POSSIBLE NEGATIVE EFFECTS

One possible negative effect lay in the program being regarded as directed against men or negative about men. This was an issue that was raised unprompted by some parents in interviews, in the facilitators' survey, and in the parent survey. In the interviews with facilitators and stakeholders this issue was specifically explored if the participant had not raised it in response to open questions.

This issue was raised unprompted by four of the 10 facilitators interviewed, and all but one of the facilitators interviewed had noticed some of their group participants perceive elements of negativity towards men. In at least one case this resulted in the couple choosing not to attend the third session of the program, with the female partner reporting:

> *I know a lot of the males felt it was very critical towards the fathers. Yeah, so that's why we didn't go back for the last session, my partner just didn't — he didn't want to deal with it anymore… like they didn't refer to anything positive regarding the fathers.* (Mother, interview)

No other negative effects were reported in interviews with parents when discussing the program's impact on them. Two aspects of program delivery were viewed negatively by parents: difficulty in feeling able to be honest, and the challenge of small groups. In the analysis of the parent surveys a small number of single mothers said the program was less relevant to them, although some reported it was useful. One single mother reported that she had sometimes felt awkward; this could be regarded as a negative effect. This was echoed by a number of facilitators, who said they sensed discomfort and awkwardness from some single mothers in their sessions.

FINDINGS FROM THE ANTENATAL PILOT PROGRAM IN GLENELG SHIRE

Analysis of uptake rates for *Baby Makes 3* over its first year led to the suggestion of a brief introductory session in the antenatal setting, so that fathers-to-be could be introduced directly to the idea of the program. A pilot of this arrangement was carried out in Glenelg Shire from January 2015. All of the parents interviewed appreciated the value of the antenatal session as a taster for what was on offer in the postnatal program.

The reaction of the fathers to the session was extremely positive; all of them went on to attend the postnatal program with their partners and all reported that the decision to attend the postnatal session was made mutually with their partners and influenced by the antenatal session. Antenatal sessions were also suggested as a valuable addition in interviews with parents who had not experienced them, facilitators and maternal and child health staff. The facilitators and maternal child health staff linked these suggestions explicitly to improving uptake.

DISCUSSION

The results presented in this article for *Baby Makes 3* are broadly consistent with those from the Hong Kong and UK which evidence a critical role for maternal and child health nurses in the promotion of gender equity and prevention of IPV.[7,9,10] What is also similar is the positive feedback from parents about group discussions and active learning activities as opposed to more didactic presentations. As has also been found in an evaluation of *Baby Makes 3* in an urban context which was conducted at a similar time to the current study,[15,30] the findings presented here identify the importance of social interaction generated by the program as an outcome valued by parents. Also valued was the opportunity to normalise the challenges they were facing as new parents. The findings presented here for *Baby Makes 3* are also highly consistent with earlier work which identified that: transition to parenthood is an under-utilised opportunity to deliver relationship education.[31]

Since the data presented here was collected, *Baby Makes 3* has been implemented in a number of rural communities throughout Victoria. To the best of our knowledge no evaluations of these initiatives have been published, although there is a growing recognition that implementation requires taking into consideration specific factors of the target community.[32] One of distinctive features of this evaluation is that it provides valuable insights into reaching potential participants in non-urban contexts. These include the need for a strategy of program delivery when there are too few births in an area to run a program in a year. The emergence of online parenting programs which have been developed in response to COVID-19 potentially provides another model for reaching new parents in rural areas who find it difficult to participate in the existing program format.[33-34]

Another key differentiating factor of this evaluation is its exploration of potential negative effects. While evaluations of parenting programs may reveal aims not fully realised, negative effects tend not to be mentioned.[12,16,17]

In terms of findings to date, of the other programs discussed earlier, only the *Young Parenthood Program* has been subject to an evaluation that included a comparison group. A cluster randomised trial of *Becoming Parents* has been registered but findings have not yet been reported. All of the studies reported thus far are relatively small in size, none of them report data on cost, and unlike the current study, none report on any resistance to the program or possible negative effects. Although the *Young Parenthood Program* is the least similar to *Baby Makes 3*, it is of interest, since the pilot randomised control trial[8] included assessment of intimate partner violence (IPV) at baseline, three months after birth and 18 months after birth. The findings demonstrated that couples who were randomly assigned to the *Young Parenthood Program* were significantly less likely to have engaged in IPV at the first

follow-up, compared to couples in the "treatment as usual" control group, but the strength of this finding diminished over time.

STRENGTHS AND LIMITATIONS

The evaluation reported here has both limitations and strengths. First and foremost of the limitations, the assessment of the impact of *Baby Makes 3* relies mainly on self-reporting by parents. Secondly, only a very small number of parents in the interview sample had chosen not to attend the program, so it was not possible to explore any differences in attitudes and behaviour between those who had, and had not, attended the program. The evaluation does not therefore include a comparison group that did not attend the program.

A further limitation is the extremely restricted range of socio-demographic information collected on those who attended the program. A deliberate decision was made to restrict such data collection directly from parents, given concerns about the burden of data collection, the perceived intrusiveness of questions and likely interference with building rapport in an interview situation, thereby risking comprising the richness of data obtained from the interviews.

In the years since the data presented here was collected, *Baby Makes 3* has transitioned from being a pilot program in a few locations to becoming established in a much wider range of Australian communities. Although the program specifications remain unchanged and hence these findings are still likely to remain relevant, applicability may be compromised if individual program providers are making adjustments to how they deliver *Baby Makes 3*.

A particular strength of the evaluation has been the use of a wide range of different sources of data, allowing for triangulation between different sources. The interview sample sizes obtained, while not large, are sufficient for the type of qualitative analysis undertaken here.[35] The interviews of parents, group facilitators and other stakeholders yielded extremely rich data, which was invaluable in understanding the particular features of the program that were helpful to parents, the challenges in program delivery, and how these might be met in the future.

Three further strengths are connected with the interviews with parents. Firstly, all parents eligible for *Baby Makes 3* were invited for interview and the invitation made clear that interviews were sought with those who had not attended the program at all or who had attended only part. Secondly parents were interviewed on their own, and usually by an interviewer of the same gender, both of which reduce the risk of social desirability bias.[36] Thirdly, information provided in interviews suggested that the interview sample obtained was very diverse and were not drawn solely from a particular socio-demographic subset.

CONCLUSION

The study has demonstrated the feasibility of delivering, in a non-metropolitan regional setting, a program that succeeds in building the capacity of first-time parents to build equal and respectful relationships in response to the lifestyle and relationship changes that follow the birth of their first child, and reduce the risk of family violence. While involvement levels were not as high as desired, they represent a considerable achievement in the face of factors that were not under the program's control. Integration within the delivery of new parent groups was perceived positively, and delivery outside the 9 to 5 working day was also important, although did not enable everyone to attend.

The program successfully generated positive impacts, according to the overwhelming majority of the parents who attended all or part of the program and contributed their views to one or more parts of the evaluation. Minimal possible negative effects were identified, and the experience gained in program delivery should enable these to be further reduced in the future. As such these conclusions are very consistent with those reached in the original (metropolitan) evaluation of *Baby Makes 3*,[2] and demonstrate the program's applicability in a rural and regional setting. Findings from the antenatal session, together with the conclusions from the other programs which spanned both the perinatal period, indicate advantages of commencing such programs before the birth.

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RESEARCH ARTICLES

Evaluation of an online medicines' safety course for remote area nurses

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ABSTRACT

Background: Providing healthcare in a remote or rural setting can be complex and difficult, with many remote area nurses not receiving sufficient orientation or preparation. This is particularly important for the management of medicines.

Aim: This analysis evaluates an online medicines safety course called Pharmacotherapeutics for Remote Area Nurses.

Study Design and Methods: Eight cohorts of students (n=629), between 2016–2020, were included in the evaluation. A mixed methods approach was used to evaluate the impact of the online pharmacotherapeutics course. At the end of each module and at the end of the course participants were asked to complete an online questionnaire. In-depth semi-structured interviews with key stakeholders (n=9) were also conducted, and data thematically analysed.

Results: The online pharmacotherapeutics course was well received (average of 4.3 on a 5-point Likert scale). It was easy to navigate (2.6 on a 3-point Likert scale), the flow was logical (2.8 on a 3-point Likert scale) and it was clear how to achieve learning outcomes (2.8 on a 3-point Likert scale). The learning content in each of the modules were well received (4.1-4.5 on a 5-point Likert scale) and deemed appropriate for nurses practicing in the remote areas (2.7-2.9 on a 3-point Likert scale). Thematic analysis of the stakeholder interviews and participant surveys revealed the pharmacotherapeutics course improved knowledge, confidence, and competence of nurses in relation to medicines management and results in better preparedness of the remote health workforce. Key stakeholder feedback highlighted that the pharmacotherapeutics course was seen as an important part of preparing and upskilling the remote health workforce.

Discussion: Overall, the pharmacotherapeutics course was well received by nurses and key informants. It improved self-reported knowledge, confidence, competence, and preparedness for nursing practice in remote locations.

Conclusion: The continued support of professional development and education for the remote health workforce is vital to ensure optimum patient care.

What is already known about this topic?

- People in remote Australia generally experience poorer health and face increased challenges in accessing care compared with major city counterparts.
- In remote regions, access to healthcare services is reliant on the availability of a competent workforce with nurses forming the backbone of rural and remote primary care.
- The use of medications is the most common intervention in healthcare and improvements in the quality use of medicines can have significant benefits to a person's wellbeing.

What this paper adds:

- Professional development and education for the remote health workforce is vital to ensure optimum patient care.
- Education that is appropriate, relevant, and accessible can increase self-assessed knowledge, competence, and confidence in relation to medicines management.
- Online education that is developed in collaboration with stakeholders and addresses an identified need is an acceptable and accessible method of providing professional development to the remote health workforce.

INTRODUCTION

Australians living in remote areas generally experience poorer health than their major city counterparts.[1] They have poorer access to health services and higher rates of avoidable hospital admissions. The poor health status of Aboriginal and Torres Strait Islander people is well recognised and accounts for a large portion of the increased burden of disease in remote areas.[2] The 'gap' between Aboriginal and Torres Strait Islander and non-Indigenous people in Australia is not closing.[3] Healthcare in remote Australia is a challenging and complex undertaking.[4] Challenges related to geography, workforce maldistribution and instability, rural culture and cultural safety impair access to healthcare.[5,6] There are far fewer doctors and allied health professionals in remote Australia compared to major cities.[7] Nurses are the most evenly distributed health professionals across Australia and form the backbone of primary healthcare in remote Australia.[8] Remote health services experience significant workforce instability characterised by extremely high annual turnover and poor retention.[9,10]

Primary Health Care (PHC) clinics, located in remote communities and mainly staffed by Remote Area Nurses (RANs) and Aboriginal and Torres Strait Islander Health Practitioners and Workers, are the major providers of healthcare in very remote Australia. Many are part of Aboriginal Community Controlled Health Services governed by the communities that they serve. In most instances, PHC clinics are the first contact for all healthcare from emergencies to end of life care. The roles that RANs undertake are shaped by the remote context in which they work and live.[11,12] Most work in very remote (MM7) Aboriginal and Torres Strait Islander communities, as designated by the Modified Monash Model (MMM) which measures remoteness from capital cities and population size on a scale from Modified Monash (MM) category MM 1 (major city) to MM 7 (very remote).[13] Nurses in smaller facilities with less access and support from medical and allied health staff tend to have a broader scope of practice. As a health facility becomes more remote, RANs are more likely to take on a general practitioner (GP) substitute role, with support and collaboration from GPs, nurse practitioners and other experts via distance communication strategies or during periodic community visits.[11] RANs are often the first point of care for patient presentations and as part of routine practice, employ a diverse set of skills encompassing the ability to examine, diagnose and provide treatments, including the supply of medications under clinical protocols.[12] They diagnose and manage illness in line with clinical guidelines providing holistic care to people in their home communities. RANs manage medical presentations, including emergencies and trauma, stabilising patients before they are evacuated to definitive care supported by medical doctors on the end of a phone or video link. RANs provide age-appropriate 'wellness' checks to assist people in maintaining their health, including the detection, monitoring and assistance with self-management of chronic disease. They undertake community development and health promotion activities following a PHC approach and conduct public health programs, including screening and surveillance, early intervention and prevention of illness advice.[13]

A significant difference in the scope of practice of RANs and nurses in non-remote settings is the management of medicines. Stowasser et al. describe the medicines management cycle, encompassing nine cognitive and physical steps from the decision to prescribe a medicine through to monitoring the impact of that medicine and three background processes (Figure 1).[14] The medicines management cycle is a complex process that is fraught with risk.[14] Across Australia, nurses consistently perform activities in relation to the management of medicines, mainly related to the administration of schedule 4 and schedule 8 medicines according to an order from an authorised prescriber. However, in the remote setting nurse roles with regards to medicines management include the initiation, supply, administration, and monitoring of medicines under clinical protocols. The regulatory mechanisms and required educational preparation for these roles varies considerably nationally.[15]

The extended scope of practice of RANs, in addition to the challenges of the remote context and workforce instability, highlights the need for advanced knowledge and skills and accessible training.[11,16,17] Effective orientation and continuing professional development is vital for ensuring an adequately skilled and professionally satisfied workforce.[18] However, nurses new to the remote context often feel underprepared

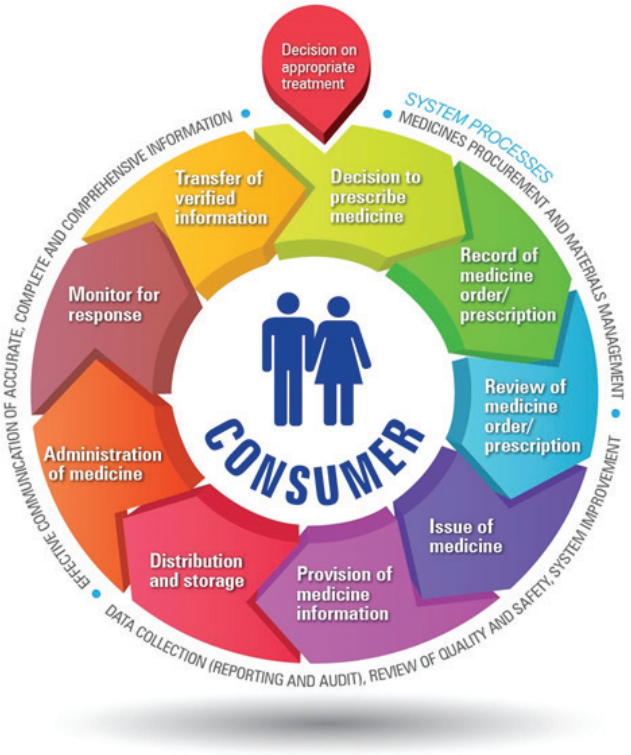

FIGURE 1: THE MEDICINES MANAGEMENT CYCLE
Ref: Adapted from Stowasser et al.[14]

by the training they receive and are overwhelmed by the demands of the RAN role.[11,19-21] Many nurses felt the lack of orientation was a key issue related to responsibilities and expectations. Lenthall found that 30% of nurses in very remote areas had not received any orientation, and of those that did, less than half thought it was adequate.[19] A recent survey by the professional organisation for remote health professionals found that only 51% of members had received an orientation that met their needs.[22]

COURSE DEVELOPMENT

'Pharmacotherapeutics for Remote Area Nurses' is the first online short course designed specifically for safe medicines management for the remote nursing workforce. It is designed to develop RANs' knowledge, skills, confidence, competence, and preparedness to ensure quality use of medicines within individual scope of practice.[23] It was developed following extensive consultation and input from stakeholders, including state and territory Departments of Health, Aboriginal Community Controlled Health Services, workforce supply agencies, professional bodies, and RANs.

The pharmacotherapeutics course is based on adult learning principles and cognitive constructivist learning theory (Figure 2).[24, 25] The course comprises eight modules that are structured to build on participant knowledge and experience. The first two modules, RAN practice and pharmacology, provide a foundation for nursing practice in the remote context. The subsequent six clinical modules explore the management of conditions common to remote practice, including hypertension, type 2 diabetes, respiratory disease, mental health, infectious disease and antibiotic use, and pain management.

The pharmacotherapeutics course assists learners in developing the foundational skills necessary for clinical reasoning. Clinical reasoning is not just the acquisition of knowledge but includes collecting and analysing data and metacognition.[26] While the acquisition of knowledge is vital for health professionals, the proper organisation of that knowledge is important for the development of clinical reasoning. New concepts are introduced gradually with activities scaffolded to provide an opportunity to apply concepts and principles to practical situations, including clinical scenarios and problem-based learning.[27-29] The design of the pharmacotherapeutics course acknowledges that education of health professionals should structure information to facilitate the appropriate recall of key concepts and principles, using a framework to provide an organised approach to solving complex problems. Internationally and nationally endorsed frameworks, such as the World Health Organization Guide to Good Prescribing and the National Prescribing Service Prescribing Competencies Framework, are used to enable the critical assessment of evidence on individual merit in solving complex problems.[30,31]

Cognitive load associated with developing understanding of new concepts is reduced with full explanation of concepts, provision of extended readings and application of concepts in case studies that are reflective of real-life scenarios.[25] Behavioural learning strategies, including the modelling of desired behaviours, are used to encourage learning outcomes.[32]

The pharmacotherapeutics course highlights the importance of culturally safe and responsive practice. Culture influences the way people view and experience health and illness and impacts on the beliefs, attitudes and decisions around access and engagement in healthcare.[33] Culturally safe practice is critical in enhancing personal empowerment and, as a result, promotes more effective and meaningful pathways to self-determination for all providers and consumers of healthcare.[34] Cultural safety and appropriateness of the course has been ensured through compliance with the Aboriginal and Torres Strait Islander Health Curriculum Framework.[35] Through learning activities, such as discussion boards, self-reflective activities and the assessments, participants in the pharmacotherapeutics course are assisted in developing culturally safe and responsive practice.

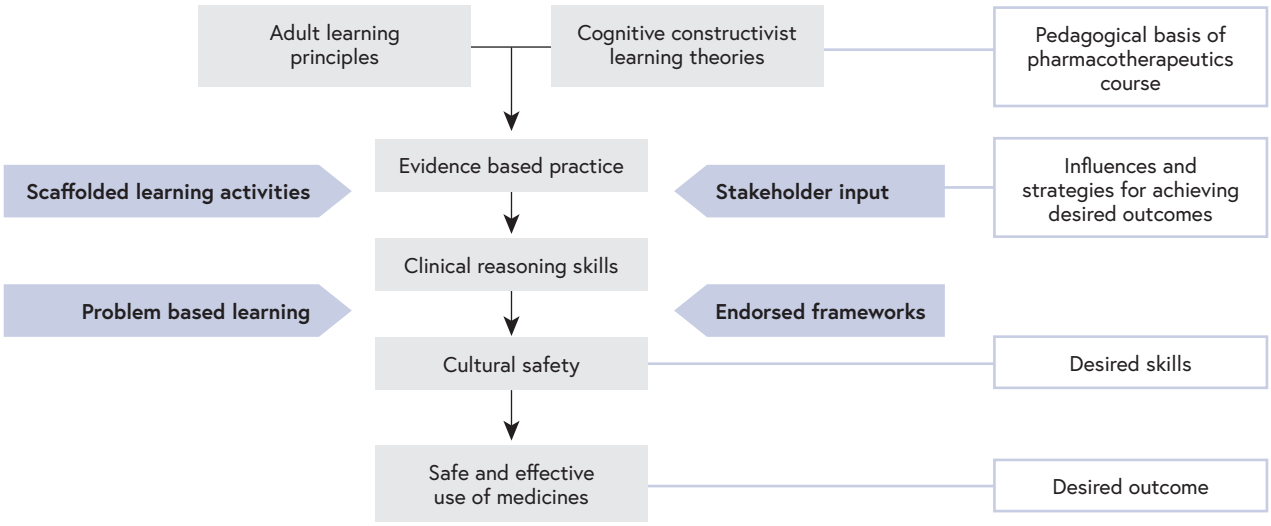

FIGURE 2: THEORETICAL MODEL, LEARNING STRATEGIES AND INFLUENCES IN DEVELOPMENT OF PHARMACOTHERAPEUTICS FOR REMOTE AREA NURSES ONLINE COURSE

AIM

The aim of this paper is to describe process evaluation feedback of the pharmacotherapeutics course from participants, and to assess impact of the course on knowledge, confidence and competence and preparedness of nurses.

METHODS

A mixed methods approach was used to evaluate the impact of the online pharmacotherapeutics course. All nurses enrolled in the course from 2016 to 2020 were eligible to participate. At the end of each module, and at the end of the course participants were asked to complete an online questionnaire.

Following each of the eight modules participants were asked: 1) how they would rate the module, with responses corresponding to a 5-point Likert scale ranging from 1 (very poor) to 5 (excellent); 2) if the content of the learning module was appropriate for nurses in the remote context, responses corresponding to a 3-point Likert scale ranging from 1 (not appropriate) to 3 (appropriate); and 3) if they had any further comments.

At the end of the course participants were asked: 1) how they would rate the course overall, with responses corresponding with a 5-point Likert scale ranging from 1 (very poor) to 5 (excellent); 2) were they able to access the course without problems, with responses corresponding with a 3-point Likert scale ranging from 1 (significant problems) to 3 (no problems); 3) how they would assess the clarity of the navigation, expectations, and the interactive case study, with responses corresponding to a 3-point Likert scale ranging from 1 (not clear) to 3 (clear); and 4) how they would assess the logic of the flow, with responses corresponding to a 3-point Likert scale ranging from 1 (flow not logical) to 3 (flow logical).

Participants were also asked open ended questions on 1) what are the positive aspects of the pharmacotherapeutics course; 2) what are one or more things you will take away from completing this course; 3) how could the course be improved; and 4) are there other topics that you think should be included?.

An understanding of the impact of the pharmacotherapeutics course in relation to improving knowledge, confidence and competence and preparedness of nurses practicing in remote areas was assessed through semi-structured interviews with key stakeholders and content analysis of participant feedback. Key stakeholders with knowledge and insight into remote nursing workforce challenges, requirements and trends were purposefully recruited for interviews through professional networks. Stakeholders were asked to respond to "do you feel the online course is impacting on the knowledge, confidence, competence and preparedness of working in remote locations, and if so, how"?

Central Australian Human Research Ethics Committee granted ethical approval for the evaluation (HREC-16-441).

ANALYSIS

Data from the surveys were tabulated using Microsoft Excel. Descriptive analyses described the frequency of responses and average participant responses. Key stakeholder input via interview transcriptions and course participant questionnaire responses, was analysed thematically using Nvivo.[36] The key themes from the analysis of interviews and participant responses were summarised.

RESULTS

A total of 629 nurses from eight cohorts completed the end of course questionnaire, generating an overall response rate of 78%. Respondents were employed by Government Departments of Health (46%), employment agencies (28%), Aboriginal Community Controlled Health Services (14%), and other organisations (12%).

The course content was rated well, with average approval rating per module of 4.1-4.5 on a 5-point Likert scale (Table 1). The content was deemed appropriate for nurses practicing in the remote areas, average rating per module of 2.7-2.9 on a 3-point Likert scale. The course was highly regarded, with overall average approval rating of 4.3 on a 5-point Likert scale. The majority of participants were able to access the course with minimal issues (2.6 on a 3-point Likert scale). They found the course was easy to navigate (2.6 on a 3-point Likert scale) and the flow of the course was logical (2.8 on a 3-point Likert scale). Respondents found that it was clear how to achieve learning outcomes (2.8 on a 3-point Likert scale). A significant proportion of respondents (57.8%) experienced challenges with the case study, an automated clinical scenario that forms the final assessment of the pharmacotherapeutics course.

QUALITATIVE RESULTS

Participants found that the course improved practice, increased awareness, and resulted in better preparedness for practice in a remote area. Improved practice, particularly in relation to greater knowledge, enhanced confidence and improved competence resulted in better patient care. An increased awareness of scope of practice, resources to support practice, challenges of remote context and risks associated with medicines were also identified. Nurses undertaking the course prior to working in remote locations found it helpful in preparing them for the practice.

Participant quotes:

> *I found (the hypertension module) interesting and could relate this to my practice. The very next day I had a lady whose BP (blood pressure) was persistently high and was on an ACEi (angiotensin enzyme converting enzyme inhibitor), she had other co-morbidities. I spoke to the doctor and she popped her on a BB (beta blocker) for one week. Her BP stabilised and the reasoning and rationale along with the module confirmed what I had been learning, along with the doctor's reasoning.*

> *Respect for complexity of clinical decisions. Accountability, therapeutic relationship, education, appreciation of the hazards, therapeutics of some groups of drugs.*

> *More informed about the decision making process of how and why people are on the different medications for their chronic disease.*

Participants also raised issues associated with the technical aspects of the online course, such as disruption of internet services in remote locations, weblinks not functioning and interactive aspects of the course, such as the case study, not functioning correctly. Some participants perceived the content as too advanced for a nursing role, reported a lack of access to recommended resources, and experienced challenges associated with timing of the courses.

Overall, the nine key stakeholder interviews highlighted that the pharmacotherapeutics course improved knowledge, confidence, and competence of nurses particularly in raising awareness of scope of practice and available resources.

Stakeholder interview quotes in relation to impacts on knowledge:

> *'I think that nurses have a greater level of knowledge, feel much more comfortable, and have confidence in giving medications from the CARPA (clinical procedure manual) after doing the course…'*

TABLE 1: PARTICIPANT RATINGS OF ASPECTS OF THE PHARMACOTHERAPEUTICS COURSE

		Per cent (%)	Average rating
How would you rate the Pharmacotherapeutics for Remote Area Nurses course overall? (1 (very poor)-5 (excellent))	Excellent/Good	88	4.3
Were you able to access and sign into the pharmacotherapeutic course without problems? (1 (significant problems)-3 (no problem))	No problem	59	2.5
Is the Pharmacotherapeutics for Remote Area Nurses course clear and easy to navigate? (1 (not clear)-3 (clear))	Clear	67	2.6
Does the online pharmacotherapeutics course flow logically? (1 (flow not logical)-3 (flow logical))	Flows logically	76	2.7
Is it clear what is expected of you and what you must do to achieve learning outcomes? (1 (not clear)-3 (clear))	Clear	80	2.8
Is the interactive case study clear and easy to navigate? (1 (not clear)-3 (clear))	Clear	42	2.2
How do you rate the learning module? (1 (very poor)-5 (excellent))	Excellent/Good	91	4.3
Is the content in the learning module appropriate for nurses in the remote context? (1 (not appropriate)- 3 (appropriate))	Appropriate	83	2.8

Workforce Recruitment Agency.

'(The pharmacotherapeutics course)… gives the nurses/midwives a better understanding of medications, their use, their side effects, interactions with other medications,..'
Director of Nursing and Midwifery

'(The pharmacotherapeutics course)… is a great refresher and provides essential knowledge learning base for the RAN working out of the CARPA manual (clinical procedure manual).'
Remote Area Nurse Manager

Stakeholder interview quotes in relation to impacts on confidence:

'*I do feel the course is impacting on nurses (confidence) as it transitions them to being an RN to a RAN, and instilling greater confidence to treat their patients with a firm knowledge base.'*
Workforce Recruitment Agency.

'(Nurses are).. more likely to ask me questions.'
Aboriginal Community Controlled Health Service Pharmacist

'… knowledge builds confidence in all clinicians.'
Remote Area Nurse Manager

Stakeholder interview quotes in relation to impacts on competence:

'The competency of understanding correct legislation and legal requirements. The knowledge pharmacological interaction, correct use of medication and the competency that goes with this.'
Workforce Recruitment Agency.

'(The pharmacotherapeutics course impacts competency)… and therefore the quality and hopefully continuity of care. Connected to increased knowledge confidence and experience.'
Remote Area Nurses & Peak Body

Stakeholder interview quotes in relation to impacts on preparedness to working in remote context:

'Legislatively it helps as it depends on the induction they receive in the clinic to whether they truly understand what they can and can't do. This course clarifies and allows a better understanding of their scope. It also gives them a heads up for maybe how much medication supply they are going to do. RN's who have not worked remote do not have an understanding of the volume and depth of medication knowledge potentially required in remote clinics.' Aboriginal Community Controlled Health Service Pharmacist

'There are many aspects of nursing that are unique to the remote setting. I believe the course does assist many nurses in their preparation to take on the challenges of medicines related practice in the remote setting.'
Department of Health Pharmacist

'In the remote context they (nurses) are working in advanced practice and courses like this are crucial.' Remote Area Nurse

Key stakeholder feedback informs us the pharmacotherapeutics course is seen as an important part of preparing and upskilling the remote health workforce. Participants and key stakeholders identified a need for further opportunities to access professional development around medicines safety and pharmacotherapeutics.

DISCUSSION

Online courses can be effective in enhancing clinician knowledge and skills in relation to safe and effective use of medicines and reducing medication errors.[17] Khalil & Schliephake described the development of a medication safety course, which is similar to the development process of the Pharmacotherapeutics for Remote Area Nurses course.[17] However, this publication does not include an evaluation of the impact of the online course on clinician knowledge. The evaluation of the pharmacotherapeutics course indicate that the online course improved self-reported knowledge, confidence, competence, and preparedness for nursing practice in remote locations. It was well received by nurses and key informants. This is important because the use of medications is the most common intervention in healthcare and improvements in the quality use of medicines can have significant benefits to a person's wellbeing.[37] Problems with medicine use can occur at any time during the medicines management cycle, including when the decision is made to use a medicine, during dispensing, and while using the medicine.[14] Medicines management usually involves multiple different health professionals adding additional layers of safety with each person involved in the process through repeated checks of the medication order, patient identity and patient alerts or medication interactions.[38] In contrast, nurses in remote PHC centres often find themselves responsible for the entirety of the medication management cycle, which increases the risk of errors reaching the person and potentially causing harm. In situations where a single individual is responsible for all nine steps of the medication management cycle they need to be equipped with the necessary knowledge, skills, and competencies to ensure the safe and quality use of medicines. Clinician knowledge and skills are identified as contributing factors in incidence of medication errors.[39] Education that equips nurses with knowledge and skills in safe medicines management, such as the pharmacotherapeutics course, are imperative in safeguarding and promoting the wellbeing of people who live in remote and rural areas of Australia.[17]

The Australian Nursing and Midwifery Accreditation Council accreditation standards were updated in 2019 to incorporate a standard referring specifically to the development of student knowledge and skills in pharmacotherapeutics and quality use of medicines (Standard 3.9), including the supply and administration of medicines.[40] Prior to the change in accreditation standards educational programs did not necessarily have to include pharmacotherapeutics, which

means that nurses who completed their undergraduate training prior to 2019 may not have received any formal education regarding the safe and appropriate supply of medications. The remote nursing workforce is slightly older than the national average, at 44 years vs 43 years, and is ageing faster, with 40% over 50 years compared to 33% nationally.[41] This highlights the fact that few of the remote nursing workforce may have received formal training in relation to pharmacotherapeutics and the supply of medications, and hence the vital role that the Pharmacotherapeutics for Remote Area Nurses course can play in addressing this gap.

Pharmacotherapeutics for Remote Area Nurses has addressed a gap in professional development for the remote nursing workforce. While the pharmacotherapeutics course has been well received by participants and organisations involved in delivery of healthcare to remote locations in Australia, some deficiencies and challenges were identified. These included problems with technology and internet connectivity that were compounded by remote context and lack of IT support services. Docherty & Sandhu's findings around student perceived barriers to online continuing professional development in primary care, including inadequate support, limited resources and course demands, reflected the experience of participants in the pharmacotherapeutics course.[42] However the limited support described in the evaluation of the pharmacotherapeutics course tended to be related to IT and technological supports. Some participants in the pharmacotherapeutics course described the course material as too advanced or challenging, claiming "I am not a doctor". However, it is important to consider the advanced scope of practice of nurses in the remote context and the duty of care that health professionals owe to vulnerable people whom they are caring for and who often do not speak English as a first language and have low health literacy. RANs need to be confident and assured to question treatments that may be inappropriate, including medicine doses or combinations of medicines.

Participants and key stakeholders identified a need for further opportunities to advance knowledge and skills related to pharmacotherapeutics and safe use of medicine that is appropriate, relevant, and accessible to the remote nursing workforce. Future research could investigate the effect that amount of experience nursing in remote areas and experience with medicines management has on the impact of education on knowledge, confidence, competence, and preparedness to practice in remote areas.

CONCLUSIONS

The online medicines safety course, Pharmacotherapeutics for Remote Area Nurses, is well received and supported by nurses and key informants. It improves self-reported knowledge, confidence, competence, and preparedness for nursing practice in remote locations. The continued support of professional development and education for the remote health workforce is vital to ensure optimum patient care.

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RESEARCH ARTICLES

COVID-19 front door screening implementation: experiences of staff conducting screening

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ABSTRACT

Background: Many hospitals have implemented COVID-19 risk screening of staff and visitors at point of entry. Little is known about staff perspectives of the screening implementation process.

Aims: To investigate the experiences of staff conducting screening at a metropolitan hospital for a novel virus with constantly evolving messaging and knowledge, and to identify potential improvements to screening procedures.

Methods: An exploratory cross-sectional survey study of 65 nurses who conducted screening at the hospital. The survey contained quantitative and open-ended questions. Descriptive analyses were conducted for quantitative data. Responses from open-ended questions were analysed using thematic analysis.

Findings: Few survey participants (20%) received training prior to screening and under half (47%) felt prepared. A majority of participants rated visitors and staff as often or always willing to complete screening questions and have their temperature checked. Approximately half of participants rated their overall experience of screening as positive and most (81.5%) believed the questions were successful in directing at risk people for COVID-19 testing. Themes identified were: *hospital environment and screening station setup; necessity for clear information; difficulties and discomfort;* and *screening is valuable psychologically and for risk reduction.*

Discussion: Suggested improvements included training for screening staff, clearly marked screening queues, additional signage explaining requirements, mandatory temperature checking, and separate entry points for staff and visitors.

Conclusion: Participants felt their overall experience of conducting screening was more positive than negative and screening provided positive psychological value for staff and visitors; however, various ways to improve screening processes for staff were identified.

Keywords: SARS-CoV-2, infection control, hospital, screening, nursing.

What is already known about this topic?
Physical distancing and infection prevention and control measures contribute to reducing COVID-19 infections, therefore to slow the spread of COVID-19 and ease the impact on health systems, screening of staff and visitors for possible viral exposure prior

to entry was implemented at healthcare facilities across the world. However, little is known about staff perspectives of the screening implementation process.

What this paper adds:
Front door screening was perceived to reduce risk and increase public confidence. Nursing staff experiences suggest a need for improvements to the process, such as increased training for staff performing the screening, increased signage and clear screening expectations for visitors prior to reaching screening stations, and changes to screening station set up.

INTRODUCTION

COVID-19 is an infectious disease caused by SARS-CoV-2 that easily spreads from person to person, primarily through respiratory droplets and aerosols when an infected person coughs, sneezes, or talks.[1] Healthcare organisations across the world have had to quickly adopt risk mitigation strategies to manage the risk of COVID-19 within their facilities. One such strategy is to screen all people entering the facility, whether this be staff or visitors. Front door screening (FDS) commonly includes a series of questions about the presence of symptoms, recent travel, contact with suspected or confirmed cases of COVID-19, and can also include temperature checks.[2-5] The primary aim of FDS is to detect individuals with risk factors for COVID-19, and if required, refer them to their doctor, a COVID-19 testing clinic, or an emergency department for testing or care.

Previous research has predominantly investigated the effectiveness of FDS for other outbreaks.[2-5] Evidence-based on the H1N1 Influenza, Severe Acute Respiratory Syndrome (SARS) and Ebola outbreaks suggested FDS was unlikely to stop the spread of the virus, or pick up those in the early stages of infection, but was likely to be most effective at raising awareness and encouraging people who were symptomatic or had an exposure to stay at home.[2-5] However, emerging studies based on screening for COVID-19 risk prior to entry at healthcare centres showed it could be useful under certain circumstances.[6-8] Self-reported symptoms were associated with positive COVID-19 tests in healthcare workers,[7] and symptom screening had high sensitivity in finding potential COVID-19 cases.[6] Recent research in an obstetric unit has shown that in low incidence areas, FDS for COVID-19 could be effective at capturing some cases and is more sustainable than nasopharyngeal swabs.[8]

Although these studies provide growing and valuable evidence for the effectiveness of different elements of the FDS process, there is limited research on key stakeholder (e.g. screening staff) perspectives of the implementation of FDS in large tertiary hospitals. Stakeholders are key participants in workplace improvements and engagement with this group is vital to the success of any new program.[9,10] Stakeholder perspectives are valuable for identifying barriers to and enablers of successful program implementation,[9,11] and can assist with streamlining screening processes for current and future epidemics or pandemics. In particular, staff conducting the FDS may have an in-depth knowledge of what was successful about implementation and what could be improved and may provide important contextual information to guide future implementation from their lived experience.[11]

As FDS appears to be a useful tool in the fight to control the spread of infectious diseases like COVID-19, it is reasonable to assume that this strategy will be used again in the future. Therefore, the objective of this study was to explore staff perspectives of implementing FDS in an Australian metropolitan hospital with many entrances, and to identify potential improvements to screening procedures. The study asked the research questions: 1) What are the experiences of staff members conducting front door screening? and 2) How can front door screening be improved for staff and visitors?

METHODS

SETTING

FDS was conducted at a metropolitan COVID-19 designated hospital in South Australia at the three main hospital entrances between 7am and 9pm, starting from 5 April 2020. A daily count of people screened and those turned away were recorded by FDS staff. People were asked to identify if they were working, attending an appointment, or visiting someone. If they were a visitor, they were asked if they were the designated visitor for the day because visitor caps were in place. The FDS questions were based on information known about the virus at March 2020. These included known local hotspots and health status based on known or suspected symptoms (both updated as needed), and close contact with a confirmed COVID-19 case. An additional question regarding influenza vaccination was added in May based on advice from the Australian Health Protection Principal Committee, and temperature checking was added in June.

OVERVIEW OF THE FDS TRAFFIC

Over the first three-month period, 194,085 people were screened (daily average 2,231), of these 96,216 were visitors, and 97,869 were staff. People were turned away from entering the hospital (1,039) for the following reasons: 11 were identified as 'high risk' for COVID-19 disease; 164 answered

'yes' to overseas, interstate, or hotspot travel in the last 14 days; six had close contact with a known case of COVID-19; 437 reported symptoms; 420 were directed to the COVID-19 testing clinic; one was advised to self-isolate.

RECRUITMENT

An exploratory cross-sectional survey was distributed via email to nurses and nursing assistants who conducted FDS. All health staff performing FDS were eligible to participate. The study was advertised through an internal health area email which contained a link to the survey. To reduce recruitment bias, all 522 staff assigned to FDS stations from commencement of screening to the end of the data collection period were identified. Of these 16 emails were not available; consequently, 506 staff were emailed an invitation to participate. To further ensure all staff were aware of the survey, it was also advertised through an all-staff communication email. Data collection occurred between 7–22 July 2020.

OUTCOME MEASURES

An anonymous survey was developed by the research team and testing was undertaken both internally by the research team, and colleagues not involved in the project, then externally by three nurse educators at the site. Based on feedback, survey questions were reordered or reworded to reduce potential bias. Thus, survey development was an iterative process. The survey aimed to explore the views and experiences of staff performing FDS to inform potential improvements, and contained binary response questions (*yes/no*), Likert-type scales, and open-ended survey questions as described below. The survey was administered online using REDCap software, hosted at the University of South Australia.[12,13]

Demographic questions

Demographic items asked participants their employment role (registered or enrolled nurse, nursing or medical student, other), years working in role (<5 years through to >20 years), and how many shifts worked at the FDS station (<10 days through to >40 days).

Preparation for role

Participants were asked two binary response questions (*yes/no*) about whether they were provided with any training for the FDS process and felt prepared to undertake FDS before they were rostered to their first screening shift (i.e. were they oriented to the purpose of the screening in a way that made them feel confident in explaining it to others). Participants who reported not feeling prepared were further asked an open-ended question about how the preparation of staff for this role could have been improved.

Interactions with visitors and staff

Participants were asked how often visitors and staff were willing to complete the FDS questions, have their temperature checked, and were accepting of FDS decisions on occasions when they had turned someone away from entering the hospital. Participants were also asked how often they felt uncomfortable due to unpleasant encounters. These questions were asked in relation to three distinct groups: visitors to the hospital; clinical hospital staff and; non-clinical hospital staff. Response options ranged from 1 (*Never*) to 5 (*Always*).

Overall experience of FDS and value of temperature checks

Participants rated their overall experience of conducting screening with each of the three groups on a 5-point Likert-type scale from 1 (*Very negative*) to 5 (*Very positive*). They were also asked two binary response questions (*yes/no*) on whether they think the screening questions were successful in directing people at risk of COVID-19 to the testing clinic and whether temperature checks added value to the FDS process. One open-ended question followed this, asking all participants why they thought temperature checks did or did not add value.

Observations related to screening

At the end of the survey, two open-ended questions asked participants how they thought the process for screening of staff or visitors could be streamlined or made more efficient, and how they think the process for screening could be improved to better identify staff or visitors who should not be entering the hospital (i.e. potentially infectious cases).

DATA ANALYSIS

Quantitative survey data were analysed using SPSS 24.[14] The survey completion rate was 100% and item-level missing data was minimal on most survey items (ranging from 1.5 to 7.7%). Consequently, all participants were retained in the study and analyses used available data. Univariate descriptive analyses were conducted for binary response and Likert-type scales using frequency distributions. '*Not Applicable*' responses were defined as missing data and are highlighted in the results. Valid percent for frequency distributions is reported throughout. Open-ended responses were analysed in NVivo 2020 using inductive thematic analysis as described by Braun and Clarke.[15,16] Thematic analysis included the following steps: 1) familiarisation with the data, 2) initial coding, 3) searching for potential themes, 4) reviewing themes and coding, 5) defining themes, and 6) writing the final analysis. The analysis was predominantly conducted by one researcher (DF). Coding and themes were reviewed by a second researcher (JF). Any disagreements were resolved through iterative discussion and revisions.

Ethical approval was provided by the Central Adelaide Local Health Network (CALHN) HREC (13293), 12th June 2020.

RESULTS

QUANTITATIVE RESULTS

Sample

Of the 506 staff members that were sent the survey over the data collection period, 65 staff completed the survey (12.8% response rate). Most participants were registered nurses (n = 47, 72.3%), with the remainder employed as enrolled nurses (n = 13, 20%) or assistants in nursing (n = 5, 7.7%). Just under half (n = 30, 46.2%) had worked less than five years in their role, while 38.5% (n = 25) had worked five-15 years, and 15.4% (n = 10) had worked more than 16 years in their role.

Since the introduction of FDS, most participants (n = 60, 93.8%) had been allocated to a FDS station for less than ten days, while three (4.7%) had been allocated to a FDS station between 10-20 days, and one (1.6%) was allocated for more than 21 days. A minority (n = 13, 20.3%) of participants were provided with training for the FDS process, and under half (n = 31, 47.7%) felt prepared to perform the FDS role (i.e. were oriented to the purpose of FDS and felt confident explaining it to others).

Willingness to comply and acceptance of decisions

A majority of participants perceived that visitors (75.4%), clinical staff (61.5%), and non-clinical staff (69.2%) were often or always willing to complete FDS questions (see Table 1). When asked how often visitors and staff were willing to have their temperature checked, a high proportion of participants selected '*Not Applicable*' (N/A): 66.2% (n = 43) selected N/A for visitors, 75.4% (n = 49) selected N/A for non-clinical staff, and 76.9% (n = 50) selected N/A for clinical staff. This is likely due to the later introduction of temperature checking. For those participants who conducted temperature checks, most perceived that visitors (85.7%) were often or always willing to have their temperature checked, while two-thirds perceived that clinical (64.3%) and non-clinical staff (66.7%) were often or always willing to have their temperature checked.

Participants were asked to consider occasions when they had turned someone away from entering the hospital based on FDS, and how often visitors and staff were accepting of why they were turned away (see Table 1). A high proportion of participants selected '*Not Applicable*' (N/A) in response to survey items regarding acceptance of FDS decisions; 64.6% (n = 42) selected N/A for clinical staff and 70.8% (n = 46) N/A for non-clinical staff, although only 18.5% (n = 12) selected N/A for visitors. Of those participants who had turned someone away, two-thirds perceived that clinical (68.2%) and non-clinical staff (66.7%) were often or always accepting of FDS decisions, while one-third of participants perceived that visitors (36.5%) were often or always accepting.

TABLE 1. WILLINGNESS TO COMPLY WITH SCREENING REQUIREMENTS AND ACCEPTANCE OF SCREENING DECISIONS AMONG VISITORS AND STAFF, AND HOW OFTEN RESPONDENTS FELT UNCOMFORTABLE DUE TO UNPLEASANT ENCOUNTERS WITH VISITORS AND STAFF DURING SCREENING

	Never		Rarely		Sometimes		Often		Always	
Survey item	***n***	**(%)**	***n***	**(%)**	***n***	**(%)**	***n***	**(%)**	***n***	**(%)**
Willingness to complete screening questions										
Visitors	1	(1.5)	3	(4.6)	12	(18.5)	36	(55.4)	13	(20.0)
Clinical staff	1	(1.5)	7	(10.8)	17	(26.2)	19	(29.2)	21	(32.3)
Non-clinical staff	0	(0.0)	10	(15.4)	10	(15.4)	26	(40.0)	19	(29.2)
Willingness to have temperature checked*										
Visitors	1	(4.8)	0	(0.0)	2	(9.5)	6	(28.6)	12	(57.1)
Clinical staff	1	(7.1)	2	(14.3)	2	(14.3)	4	(28.6)	5	(35.7)
Non-clinical staff	1	(6.7)	0	(0.0)	4	(26.7)	4	(26.7)	6	(40.0)
Acceptance of reason for screening decision*										
Visitors	3	(5.8)	14	(26.9)	16	(30.8)	12	(23.1)	7	(13.5)
Clinical staff	5	(22.7)	1	(4.5)	1	(4.5)	8	(36.4)	7	(31.8)
Non-clinical staff	4	(22.2)	1	(5.6)	1	(5.6)	7	(38.9)	5	(27.8)
Felt uncomfortable due to pleasant encounters										
Visitors	8	(12.5)	10	(15.6)	34	(53.1)	11	(17.2)	1	(1.6)
Clinical staff	28	(43.8)	15	(23.4)	16	(25.0)	5	(7.8)	0	(0.0)
Non-clinical staff	29	(45.3)	16	(25.0)	13	(20.3)	5	(7.8)	1	(1.6)

Note. n = number of respondents, % = valid percent. * N/A responses were excluded.

TABLE 2. OVERALL EXPERIENCE OF CONDUCTING SCREENING WITH VISITORS AND STAFF

Group	Very negative		Negative		Neutral		Positive		Very positive	
	n	(%)	*n*	(%)	n *n*	(%)	*n*	(%)	*n*	(%)
Visitors	2	(3.1)	13	(20.3)	16	(25.0)	27	(42.2)	6	(9.4)
Clinical staff	1	(1.6)	9	(14.1)	19	(29.7)	20	(31.3)	15	(23.4)
Non-clinical staff	1	(1.6)	8	(12.9)	16	(25.8)	25	(40.3)	12	(19.4)

Note. n = number of respondents, % = valid percent.

Experience of staff conducting FDS

When asked how often they felt uncomfortable due to unpleasant encounters during FDS, over two-thirds of participants reported that they never or rarely felt uncomfortable with clinical (67.2%) and non-clinical staff (70.3%), while over two-thirds of participants indicated that they sometimes or often felt uncomfortable with visitors (70.3%; see Table 1). Over half of participants reported having a positive or very positive overall experience screening visitors (51.6%), clinical staff (54.7%), and non-clinical staff (59.7%; see Table 2).

Success and value of FDS process

When asked about the success of the FDS process, most participants (n = 53, 81.5%) believed that the screening questions were successful in directing people at risk of COVID-19 to the testing clinic. Moreover, approximately two-thirds (n = 37, 61.7%) of participants believed that temperature checks added further value to the screening process.

OPEN-ENDED RESPONSES

Four themes and one sub-theme were identified through thematic analysis of open-ended survey responses: *hospital environment and FDS station setup*; *necessity for clear information* (sub-theme: *training processes and support from supervisors*); *difficulties and discomfort carrying out FDS*; and *FDS is valuable psychologically and for risk reduction*. See Table 3 for quotes associated with the different themes.

Hospital environment and FDS station setup

A prominent theme in the data was the impact of the hospital layout and environment on the FDS process. The physical layout of the hospital was an issue identified by many participants because it included multiple entrances, not all of which were manned. This was a primary concern because it enabled people to bypass FDS stations. Participants suggested that FDS be done at all doors at all times, or unmanned entrances be locked. Participants suggested separate lines for staff and visitors, distinctively marked queues with physical barriers, security guards, and more FDS staff to address the issue of people simply walking past the FDS station. This was especially needed during times when there was a high flow of people through the main door. Alternatively, one participant suggested that technologies could be implemented for screening, to streamline the process and make it unnecessary for more staff to be assigned to the screening stations.

Many participants felt that staff should not have to participate in FDS, particularly daily, and some suggested that stickers or an express lane could be implemented to bypass or hasten FDS processes for regular staff and visitors. Staff were perceived as already knowing the entry requirements and being expected to follow these, thereby making FDS unnecessary.

Finally, participants highlighted the need for more consistent access to the appropriate supplies and supports, including personal protective equipment and type of thermometers.

Necessity for clear information

Another prominent theme articulated by most participants was the desire for guidelines and instructions around the FDS process. Both visitors and staff required information to understand expectations and current policies. This was perceived as critical to ensure a smooth screening experience. Participants desired more information at the main entry point (e.g. information boards, signage or handouts) to better inform visitors of the FDS process, help staff enforce policies, and ensure consistency of procedures. Some participants also felt media campaigns to pre-warn the public of hospital requirements would have been helpful.

Staff commonly felt they needed more guidelines and instructions to support their FDS role, provide guidance on how to manage issues that may arise, and clarify the purpose and expectations of the FDS process. Moreover, due to the changing criteria across time as new information about COVID-19 arose and policies were reviewed, guidelines and expectations needed to be regularly updated and distributed to staff. Participants also felt under-informed about managing exemptions to current policies.

Training processes and support from supervisors

A sub-theme identified within the *necessity for clear information* was the importance of providing training and induction prior to starting the FDS role. In many cases, participants felt they needed more training, having either had none, or having had information passed on by workers in the previous shift. In contrast, a few participants perceived

that no training was required for this role as it was a simple process. The lack of training and guidelines for the role, possibly in combination with frequently changing policies, reported as being vague or open to interpretation, appeared to contribute to inconsistencies around role expectations. This had negative consequences for some participants. Finally, some FDS staff felt additional support and availability from senior staff would have improved the experience as expectations and rules often changed between shifts.

Difficulties and discomfort carrying out FDS

Another theme identified was the negative experiences and feelings of participants related to carrying out FDS processes. Some participants encountered difficulties with carrying out FDS, which impacted their views of the process. For example, some felt the entry requirements were not strict enough, or perceived that people knew about the restrictions, and consequently could lie to screening staff to enter, which made FDS of little use. Some participants felt this increased the value of temperature checking, perceiving it could measure COVID-19 symptoms when people were not honest in answering FDS questions.

Some participants reported staff and visitors behaved unpleasantly or were unaccepting of the requirements. For instance, staff and visitors sometimes refused, ignored or avoided FDS stations, which made the work difficult, stressful, or uncomfortable.

FDS is valuable psychologically and for risk reduction

Despite the difficulties and negative emotions felt by some participants, other participants perceived that FDS, particularly temperature checking, was valuable psychologically and for risk reduction. Several participants felt that temperature checking increased public confidence in FDS, other participants believed that FDS was useful for highlighting the seriousness of the pandemic and that temperature checking increased the public's confidence in the hospital's response. Many participants felt that temperature checking was necessary as part of successful FDS processes and was useful for clearing visitors, others believed it was useful for identifying risk of infection.

Temperature checking was also valued as a way to collect objective clinical data for documentation purposes and to demonstrate to visitors in a visible way the reason for FDS and possible denial of entry. Several participants noted that FDS and/or temperature checking should have started earlier in the pandemic.

TABLE 3. PARTICIPANT QUOTES RELATING TO THE DIFFERENT THEMES

Theme	Summary of theme	Quotes
Hospital environment and FDS station setup	The physical layout of the hospital was an issue identified by many participants as it included multiple entrances, not all of which were manned. In addition, during high traffic periods people were noted avoiding the screening stations due to poor visibility of the stations and queues. Finally, the accuracy of the type of thermometers provided were questioned by some staff.	"Screening staff is pointless, as they are educated on hospital policy and they can enter another unmanned door and access the hospital unscreened. i.e. if you take public transport you get screened but if you drive you don't [carpark entrances were unmanned]." (P25, Enrolled Nurse). "Visitors were still getting past staff at the front door. The [hospital] needed designated lines so people could not get past and maybe security guards to help out. I found the [hospital] was too casual with their screening and people were just walking into the hospital without being asked questions or having their temperature checked." (P30, Enrolled Nurse). "It could easily be made electronic and then manned by one person. Tick boxes for why they have come to hospital (ie., visitor, staff, appointment, cafe, parking, etc.), then if they feel well, then if they have been OS or interstate, or been in contact with COVID cases. Depending on their answers it could then direct them where they need to go with one staff member manning it just in case there are questions/uncertainties." (P65, Assistant in Nursing). "Staff should be given a sticker to identify them as staff. They should not be getting screened just because they come through the front door every day. Staff should be provided with education as to why they should not be coming to work when sick. We should only be screening visitors." (P39, Registered Nurse). "It was cold outside because it is winter so checking them as they enter using the forehead method was not helpful because they read low until the person warmed up enough to get an accurate reading." (P83, Assistant in Nursing).

TABLE 3. PARTICIPANT QUOTES RELATING TO THE DIFFERENT THEMES (CONTINUED)

Theme	Summary of theme	Quotes
Necessity for clear information (sub-theme: training processes and support from supervisors)	There was perceived to be a lack of communication around the screening stations and expectations for everyone involved: staff conducting screening, other hospital staff and hospital visitors. A sub-theme of this was mixed feelings around consistency of training for screening staff and support from supervisors.	"Many had also been given permission by wards to have more than one visitor attend. One of the patients that arrived was a direct admission with respiratory symptoms, there was no information provided about what to do with patients who were being admitted due to chronic respiratory problems, and we were unable to contact the NUM [Nurse Unit Manager]." (P40, Registered Nurse). "A group huddle with organiser prior to or at commencement of shift to update role required." (P26, Registered Nurse) "Especially on weekends, and after hours there were no clear instructions and unsure if role of nurse was as a health screening role or more security." (P23, Registered Nurse). "Clear and consistent guidelines for each entry point. Media exposure to forewarn visitors of what will be occurring." (P34, Registered Nurse). "…the policy is poorly implemented… and there seems to be no definite 'set of rules' or guidelines to follow to implement to those visiting nor guidelines to make the public aware of the changes in regards to visiting the hospital." (P43, Registered Nurse) **Sub theme:** "There was no guidance provided at all and staff had not been made aware they may be allocated to this role. An email with role guidance or instructions would have been helpful at the very least". (P47, Registered Nurse). "It was easy to pick up so training not required." (P2, Registered Nurse). "I was not given any instructions other than 'ask these questions' by the previous nurses who had also never done it before and was then told off for not doing the job properly. Each senior manager gave us different criteria to screen for, … Then each nurse enforced it to their desire which made things even harder. It wasn't a pleasant experience at all." (P3, Registered Nurse). "Senior point of contact who was available throughout the screening period to assist when required. … Someone managing the screening and available as a contact for difficult encounters." (P34, Registered Nurse).
Difficulties and discomfort carrying out FDS	There were some discomforts in carrying out FDS, with some staff and visitors refusing to be screened, slipping past the screening stations, or lying about their personal risk status in order to enter.	"There needed to be protocols and the checks needed to be more mandatory. Every other hospital… were much stricter in their screening for entering the hospital than [our hospital], which was the COVID-19 main hospital." (P30, Enrolled Nurse). "The people that did stop said no before questions were even asked. Everyone that was questioned knew about COVID and its restrictions; therefore anyone that had made the effort to come into hospital would have said whatever they needed to to [sic] enter." (P1, Registered Nurse). "People can give you false information whereas checking temperatures can perhaps capture someone that is unwell and should not be entering the hospital but staying home." (P37, Enrolled Nurse). "Lots of staff in particular were very rude about getting screened. 'I wouldn't be at work if I was sick would I?' type of comments were often made or staff would often walk past quickly and avoid eye contact as to not be screened, making it difficult for visitors as they would say 'well that person just walked past why do I need to be screened'." (P35, Registered Nurse).
FDS is valuable psychologically and for risk reduction	FDS, particularly temperature checking, was perceived to be valuable psychologically; FDS reassured both staff and visitors that the hospital was showing due care. FDS was also perceived to reduce risk by halting entry for those in high risk groups and highlighting the need to stay home if unwell.	"People felt confident knowing their temp was taken as precaution & were interested in it being taken." (P28, Registered Nurse). "I think it provided a sense of a coordinated effort on behalf of the hospital to keep people 'safe'." (P33, Registered Nurse). "It was one measurable way to clear visitors to the hoslital [sic]." (P6, Registered Nurse). "It is important to identify people who might already have the COVID infection as not to spread it to already at risk and immunocompromised people in the hospital." (P19, Registered Nurse). "We didn't do temp checks… but I think it would be useful as the general person doesn't check or own thermometer at home. Also when staff arrived with sore throat etc. having temp check at the door would have stopped them going up to their ward to talk to their NUM [Nurse Unit Manager]." (P15, Registered Nurse). "If someone had a cough\flu like symptoms and showed a high temp it was something tangible the person could see for themselves and shed some more light on the reason for the screening process." (P41, Registered Nurse) "Needed to have temperature screening sooner." (P35, Registered Nurse).

DISCUSSION

The survey provided insight into the experiences of staff conducting FDS, and their suggestions for how the process could be improved. The staff conducting FDS reported that most visitors and staff were often or always willing to comply with FDS questions and temperature checks. However, visitors were less frequently rated as being often or always accepting of why they were turned away than staff. Most screening staff reported unpleasant encounters with visitors sometimes or often, and with clinical or non-clinical staff never or rarely. However, the open-ended responses provide a slightly different perspective with many participants highlighting negative incidents with staff rather than those with visitors. It is possible the unpleasant encounters with visitors reported by the survey participants may have stemmed from being turned away due to hospital-instituted caps on the number of visitors a patient could have each day. However, while visitors may have actually been less often accepting of being turned away as reflected in the quantitative results it is possible that unpleasant encounters from colleagues were more memorable than those with a stranger one is unlikely to see again, hence the emphasis on unpleasant staff encounters in the open-ended responses.

A high proportion of participants selected '*Not Applicable*' in response to survey items regarding acceptance of screening decisions, indicating most participants had not turned away staff based on FDS but had turned away visitors, which is likely because staff were aware of current FDS practices in their workplace and because limits on visitors per patient did not affect staff. There was also perceived to be a shortage of information to inform visitors of the expectations around FDS, and many suggested greater communications to the general public about the need for and importance of FDS. Only a minority of participants reported receiving training to undertake FDS, and less than half felt prepared for the role leading to suggested improvements in guidance for FDS staff about current policy, as this was reported to change between shifts. The combination of constantly changing information due to the nature of the COVID-19 pandemic and the resulting changes in hospital policy was a source of frustration for survey respondents. Research prior to the COVID-19 pandemic had shown that constant change can lead to negative impacts on staff,[18] potentially increasing disengagement and apathy to the change and failure to express discontent.[19] Workplaces with greater professional autonomy, greater control over the practice environment, and the use of systems that promote accountability and continuity of care can mitigate negative effects, suggesting greater communication and involvement in policy changes relevant to FDS may be an important protective factor.[19]

Participants held mixed views on the value of temperature checks. While two-thirds indicated temperature checks added value, and most visitors were willing to have their temperature taken, participants raised that mandatory temperature checks escalated negativity and unwillingness to be screened, particularly among staff. They also noted temperature checks were time consuming and difficult to manage during peak visiting hours, and did not take into account that high temperatures may be the result of other health issues, and low temperatures could be the result of winter weather or the general inaccuracies inherent in forehead thermometers. These participants indicated in-ear thermometers would have been more accurate. However, staff also perceived that the temperature checks were more accurate than self-reported symptoms, provided an objective measurement that was seen to facilitate compliance, and promoted a sense of a coordinated effort from the hospital to keep people safe, providing psychological reassurance to the general public, and to staff. This mix of perspectives has been reflected in the wider literature which indicated temperature checking in epidemics or pandemics provides psychological benefits more than accurate capture of those infected.[2,3,8]

There were dissenting opinions regarding FDS requirements for staff. While some participants felt strongly that staff should not be exempt from screening, many believed staff should not be screened daily, and some suggested a temperature check alone would suffice. Reported issues pertaining to staff screening included that staff were aware of hospital policy and how to answer questions correctly, could choose to enter via unmanned doors if desired, and were known to ignore or bypass FDS stations. The emergence of new apps and symptom trackers for health workers could be one way to address some of the issues reported in regard to screening staff.[17]

IMPLICATIONS FOR FUTURE PRACTICE

This study provides possible suggestions for the improvement of future FDS processes, including having well-marked and equipped screening stations, providing information for staff and visitors around policies and expectations, and considering the intended purposes of FDS when choosing setup and screening elements. Further investigation of the value of screening clinical and non-clinical staff, and the possible methods to streamline the process (eg. use of technology) is required.

LIMITATIONS

The main limitation of this study was the very low number of COVID-19 cases in South Australia. Another limitation was the porous nature of the hospital with multiple entrances. It was not possible (due to both cost and staff numbers required) to either close or set up a FDS station at every entrance. Finally, this was a very small sample of the people involved in FDS at a single institution. The response rate of 12.5% was very low suggesting that this may not be a representative sample of the FDS staff. Low response rates to surveys are not uncommon in health professionals who often cite lack of time, lack of interest in research, or survey fatigue as reasons

for not responding.[19,20] It is possible that those who answered the survey were the staff who felt strongly about various aspects of the process, consequently generalisation to other institutions or settings should be made with caution. Despite these limitations, a strength of this study was the inclusion of closed and open-ended questions, which provided participants an opportunity to share their thoughts on possible improvements to current or future FDS processes, and allowed a more detailed exploration of the screening implementation process.

CONCLUSION

FDS staff believed the screening was successful in directing people at risk of COVID-19 to the testing clinic and noted the positive psychological value of temperature checking. Moreover, most participants rated their overall experience of conducting FDS with visitors and staff as more positive than negative, although this was closer to neutral for visitors. Key suggestions for improvement by FDS staff were: training and instruction of FDS staff prior to their first shift, structured communication between shifts, clearly marked queues with distance markers on the floor and barriers, additional signage and other forms of information explaining the requirements, mandatory temperature checking, and separate entry points for staff and visitors.

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RESEARCH ARTICLES

Older South Sami women and men's expectations regarding home healthcare in Sweden

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ABSTRACT

Objective: The aim of this study was to describe the views and expectations concerning home healthcare from the perspective of older South Sami women and men in comparison with each other.

Study design and methods: In this study, 56 older South Sami women (n=31) and men (n=25) were interviewed by telephone, using semi-structured interviews. Data was subjected to qualitative content analysis.

Results: Our results revealed both similarities and some slight differences between the male and female participants. Both male and female participants expected the same care providers over time, in addition to expecting competence. Additionally, our female participants stressed that care providers should use time in their encounters with them as care receivers. For some female participants, this was related to competence. The findings also revealed that the care providers' cultural backgrounds were of importance to both female and male participants, even if female participants preferred care providers with a South Sami background to a greater extent. The male participants stressed that having care providers with a South Sami background could be of importance, but they were more concerned about the care providers' competence in the encounters with them as future care receivers. The main findings show that older South Sami women and men mostly have similar expectations of future home healthcare.

Conclusions: Our results highlight that having the same care providers over time, with the necessary competence, is of importance to our participants. Additionally, participants prefer their care providers to have a South Sami background – although not at the expense of competence – and this was especially highlighted by the South Sami men.

Implications for research, policy, and practice: Our study indicates that, if possible, in encounters with South Sami women and men, home healthcare services should facilitate for the same care providers over time and that they should be competent, preferably of a South Sami background, and speak South Sami if the care receiver has mastered the Sami language.

Keywords: South Sami people, expectations, home healthcare, interviews, qualitative content analysis

What is already known about the topic?

- Older South Sami people want the same care providers over time, with individual adjustments and competent care providers in home healthcare.
- There are contradictions in and between older South Sami people, about having care providers with South Sami background speaking South Sami in home healthcare.

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What this paper adds

- Older South Sami women and men mostly have similar expectations of future home healthcare.
- Home healthcare services should facilitate for the same care providers over time and that these should be competent and preferably of a South Sami background.

BACKGROUND

International studies show that indigenous peoples have poorer health and social outcomes than non-Indigenous populations.[1] This is, however, generally not the case in the Nordic countries, where the Sami and benchmark populations show similar overall health and distribution of health indicators.[1] Somatic health among the Indigenous Sami people indicates that a majority of the Sami population experience good health, and that mortality and life expectancy are similar to those of a non-Sami population.[2,3] Nurses are expected to be culturally sensitive and have cultural knowledge in encounters with patients. In order to provide primary healthcare or aged-care services to indigenous people in support of their well-being, maintaining Indigenous identity, promoting independence and delivering culturally appropriate care is of importance.[4] Accordingly, to provide culturally appropriate services for Indigenous people, clear communication and cultural sensitivity training are of importance.[5] However, Dagsvold, Møllersen and Blix state that clinicians' perceptions of culture decide the extent to which they can take cultural considerations about Sami patients into account.[6] An important starting point in the nurse-patient encounter is a holistic perspective where cultural and ethnic aspects are taken into account. Ekman et al. attach great significance to the importance of language and the advantage that it brings if staff in elderly care and home healthcare share the patient's language and culture.[7] For example, having Swedish as a second language and losing contact with their own culture and language makes older people extra vulnerable and isolated.[8] Mehus et al. found that Sami patients in encounters with healthcare professionals prefer the use of the Sami language, as this can present a confirmation of their identity.[9] Bilingualism is difficult to identify, even in contexts where almost 50% of the population are Sami.[10] It seems like clinicians' perceptions of culture influence how they take cultural considerations about their Sami patients into account.

The present study is part of a larger research project designed to examine the view of home healthcare from the perspective of older people with a South Sami background in Sweden. The research showed that older South Sami people wanted home healthcare to involve the same care providers over time, with individual adjustments and competent care providers.[11] This corresponds well with the rest of the population in Sweden. Further, research revealed contradictions in and between participants, as they had different preferences regarding having care providers with a South Sami background speaking South Sami, despite having similar South Sami backgrounds. Additionally, the study showed that Sami food had a special significance for the South Sami people.

Ness, Hellzen and Enmarker found that older men and women may have different preferences as a result of getting older, living alone, experiencing gradually declining health and being in need of home healthcare.[13,14] The oldest old men living alone and receiving home healthcare could experience loneliness, which only diminished when they received visits from family or home healthcare providers, and this entailed a desire to move to the nearest nursing home when their wife died and they needed help.[13] On the other hand, the oldest old women wanted to stay in their own homes, even if their health deteriorated and they were in need of help. They did not experience loneliness to the same degree as the men when being alone, but rather experienced solitude and a desire to remain in their own homes despite declining health.[14] These two studies may help shed light on the possibility that older men and women may have different preferences regarding receiving home healthcare as they get older, which is also one reason why examining possible differences between older South Sami women and men may be of interest when talking about future expectations regarding home healthcare. Thus, the aim of this study was to describe views and expectations of home healthcare from the perspective of older South Sami women and men in comparison with each other.

METHOD

DESIGN

A qualitative method has been chosen to achieve the study aim, personal interviews were performed with the participants, and interview data was subjected to qualitative content analysis.[15]

CONTEXT

The South Sami population is one of several different Sami populations, and consists of nearly 2,000 people living in the central regions of Sweden and Norway. The population has close relationships and connections across the national border, as a result of traditional reindeer migration.[16] About 500-700 South Sami people in Sweden and Norway speak South Sami.[17,18]

PARTICIPANTS AND PROCEDURE

A purposive sample of 56 older South Sami people (31 women and 25 men) aged from 69 to 90 years (md=74) participated in this study.

TABLE 1. OVERVIEW OVER AGE DISTRIBUTION BETWEEN OLDER WOMEN AND MEN.

Age 69–79	Age 80–90
24 women	7 women
23 men	2 men

They all came from the South Sami area in Sweden, meaning the four counties of Västerbotten, Jämtland, Härjedalen and Dalarna. All participants were living at home, some with their spouse, while others lived alone. Some participants had experiences as patients, next of kin, or healthcare providers themselves, while others had not. All participants had various earlier occupations, e.g., as reindeer herders, electricians, healthcare personnel or teachers. A written request was sent out to 189 persons, all registered on the electoral list with the Sami Parliament, and they were asked to participate in the study. To be registered on the Sami Parliament electoral list in Sweden means that each individual must meet two self-reported criteria: (A) The person must consider himself or herself as Sami and (B) any of the person's parents or grandparents must have spoken the Sami language in their home.[19] The nonresponse level was high, due to the possibility that many potential participants were working with reindeer herding, as the data collection was performed during the summer. The participants who were interested in participation in the form of a telephone interview were contacted by the interviewer, and agreement on a suitable time was made.

INTERVIEWS

Semi-structured interviews were conducted over the phone with the participants during the summer of 2016 by an interviewer with a South Sami background, who could speak South Sami if preferable to the participants.[20] All participants chose to speak Swedish with the interviewer. The participants were asked to describe their expectations concerning home healthcare and whether they saw it as important to have care providers with a South Sami background who spoke South Sami when offering care in the future. All participants were asked the same questions. The interviews lasted from 10 to 30 minutes, were recorded and later transcribed verbatim by the interviewer. Personal information was replaced with codes.

DATA ANALYSIS

A qualitative content analysis was performed in several steps separately for the interviews with the women and the men, using the qualitative content analysis process described by Graneheim and Lundman.[21] The analysis can be described as a process of identifying, coding and categorising the primary patterns in the data.[15] The analysis started with each transcribed interview, texts were read through several times keeping the aim of the study in mind in order to obtain an overall picture of the content. Next the interview texts were divided into meaning units, based on the aim of this study. Each of these units were condensed and labeled with codes based on the content. The coded meaning units were then compared, sorted and divided into categories separately for the interviews with the women and the interviews with the men (Table 1).[15] The first author carried out the initial analysis; however, all three authors have reflected on and continuously and critically worked with the assessments until a consensus was reached.

ETHICAL CONSIDERATION

Before taking part in this study, consent was obtained from the participants and information about the possibility to withdraw at any given time was given. Moreover, the participants were guaranteed confidentiality and an anonymous presentation of the results. The study was carried out in agreement with the Declaration of Helsinki.[22] The study was approved by the Regional Ethical Review Board, Umeå, Sweden (2016/33-31Ö).

RESULTS

The analysis revealed two categories for the South Sami women and two categories for the South Sami men (Table 2). In the subsequent section, the categories for the South Sami women are presented first, followed by the categories for the South Sami men, and they are illustrated with quotations from the interview texts.

TABLE 2. OVERVIEW OF CATEGORIES CONSTRUCTED FROM THE INTERVIEWS WITH OLDER SOUTH SAMI WOMEN AND MEN

Categories for South Sami women	Categories for South Sami men
1. Having the same care providers who have competence and time to spend	1. Having the same care providers who have competence and are pleasant
2. Contradictions, but preferable to have a South Sami background	2. Nice with South Sami background, but more important to have the right competence

CATEGORIES FOR OLDER SOUTH SAMI WOMEN

Having the same care providers who have competence and time to spend

Some of the women said that they did not have any specific views or expectations about future home healthcare, but other participants highlighted that they wanted the same care providers when receiving care. The reason for this mentioned most often by the women was that having the same care providers over time could represent security, and that the participants did not have to explain what they meant to several care providers, and this could entail good care:

> *"I want good and safe care. . .//. . . with few care providers."*

Participants mentioned that future care providers should be flexible, have competence, and that the received care should be based on the care receiver's needs and clinical requirements. When talking about competence, participants did not always specify what this meant, but some discussed competence in relation to, e.g., feeling safe and using time in the encounters with them as future care recipients. They wanted future care providers to use their time properly, which could lead to greater security and the possibility to see them as care receivers:

> *"I want them to see all of me, and if that takes nine minutes and not seven, that's OK. I don't want them standing looking at their watch."*

Contradictions, but preferable to have a South Sami background

The women stated that having care providers with a South Sami background was of varying importance, and a few emphasised that having the right competence was more important than their background. Others said that it would be nice having care providers with a South Sami background if they had the right competence.

> *"I hope they have the right competence. It could be nice if they have a South Sami background, but then they have to have the right competence as well, so that I can feel safe. You can get some of that safety being with someone you know."*

Although some women said that it was not so important to have care providers with a South Sami background, some said that they would not demand it, and others again expressed that it was highly preferable for them to have a South Sami background. Those who wanted care providers with a South Sami background believed that they were able to understand them as care receivers much better. By being part of the South Sami culture, and knowing the codes, they would have a much better understanding, and they as care receivers would not have to explain so much, because the care provider would already know their point of view.

> *"Of course, I do want that (care providers with South Sami background). It would be so much easier, because I wouldn't have to explain things. She would understand just by coming through the door. You cannot get past that, that's just how it is."*

When talking about the South Sami language, some stated that they themselves had not mastered the South Sami language, whilst others said that they spoke both, so they did not have to speak South Sami with the care providers, even if they thought it would be nice to speak South Sami.

CATEGORIES FOR OLDER SOUTH SAMI MEN

Having the same care providers who have competence and are pleasant

Some men responded that they did not have any specific views or expectations about future home healthcare, and said that they still felt fit. The older men expressed that they had not considered what to expect from home healthcare, if that could be relevant for them. Others who had thought about this issue said that they would prefer care providers who had personal qualities such as being helpful and having a sense of humour.

> *"I hope they are obliging, gentle and have a sense of humour."*

In addition to these personal qualities, some participants emphasised that, if they required care, they would want to be cared for by providers with the right competence. Participants did not always specify what they meant with competence, but it was mentioned in relation to having the ability to create a relation by using, for instance, humour, and being an educated care provider. Some participants mentioned without being asked that the care provider's background did not matter when receiving care, but the care provider's competence did:

> *". . . (I am not all that Sami). . .. I just want the best care provider, and where they are from doesn't matter, as long as they have the right competence. That's what matter to me."*

Participants expressed views and expectations of future home healthcare where the providers were able to recognise them as care receivers, where they would not have to explain so much about their own personal situation.

> *"I don't want so many different people, because I want them to remember me, so they will know what I want."*

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Some participants emphasised that they wanted care providers who considered their individual needs, and that the care received/given should be based on this.

Nice with a South Sami background, but more important to have the right competence

Having care providers with a South Sami background, speaking South Sami, was of varying importance to the male participants in the study. A few participants said it would be fantastic to have care providers with a South Sami background, because they would have a solid basis to understand them as care receivers (better than other care providers). Other participants said it would be nice to have care providers with a South Sami background who were fluent in the South Sami language:

> *"It works fine for me as it is, but it would be nice if some (care providers) could speak South Sami with me, but otherwise it works well with Swedish-speaking care providers."*

Most of the male South Sami participants did not believe it was important to have care providers with a South Sami background who could speak South Sami, and this was expressed by both South Sami men who had lived close to the Sami culture and spoke South Sami themselves, and by those who had not. As one who had never thought about having care providers with a South Sami background said:

> *"I've been a Sami since I was born, but I've never thought about that issue. I know I have a Sami background, but I've neither lived as a Sami nor spoken the language."*

Even if several respondents expressed that it could be nice to have care providers with a South Sami background, most of the men highlighted that it was more essential that the care providers were skilled, were interested, and had the right competence to care for them as care receivers:

> *"I wouldn't claim that that is important (having care providers with a South Sami background) – it is much more important that they are interested and have the necessary knowledge (of how to help old people)."*

DISCUSSION

The aim of this study was to describe and compare the views and expectations of home healthcare from the perspective of older South Sami women and men. Because we could not find any studies focusing on older South Sami people's views and expectations of home healthcare, except for the two studies from our overall research project designed to examine the view of home healthcare from the perspective of older people with a South Sami background in Sweden,[11,12] we discuss our findings in the light of general studies of Sami people's experiences and care providers in relation to healthcare services.

The results revealed that both male and female participants expect the same care providers over time, while also expecting care providers to have competence. Having expectations regarding having the same care providers over time can be linked to continuity in care. Continuity in care is seen as both necessary and highly preferable when receiving care,[23] and is connected to improvement in care receivers' functional levels and psychosocial well-being.[24] Continuity is seen as a universal requirement for most people receiving nursing care, and not something that only some patient groups prefer.[25,26] Therefore, there is nothing exceptional about the participants expectations when wanting the same care providers over time, which can provide continuity when receiving care. Sparbel and Anderson stress that continuity of care is considered a prerequisite of good care,[27] and is strongly associated with patient satisfaction with care,[28] and this is in line with our participants wanting continuity in future home healthcare. Continuity is also related to decreased hospitalisation and decreased healthcare costs.[29]

Additionally, continuity is related to having the right competence and amount of care providers who can carry out the care tasks in the home healthcare adequately,[23,24] and then the care providers must have the right amount of time to provide the care needed. This can be related to participants wanting care providers with competence, as well as the result highlighted by the Sami women in our study, which concerned time and was spoken in relation to competence by some participants. Therefore, in order to provide continuity in home healthcare, time may be of importance, as mentioned by some of our female participants, as the care provider has to use the time needed to see the whole person receiving care. When care providers have time in their encounters with care receivers, the possibility to get to know the care receivers is enhanced, and the opportunity to provide good qualitative care is increased. McDonald et al. identified that using time in home healthcare and having the same care providers over time increases the opportunity to provide perceived good care, and to maintain continuity for both the care receivers and the care providers.[30] This corresponds to the view of several of our participants in the study who saw this as an important element in future home healthcare.

The interpersonal dimension of continuity as mentioned by Gjevjon draws attention to the relationship between the care receiver and the care provider, and implies that continuity of care involves interpersonal interactions between the care receiver and one or several care providers, where one-to-one interaction represents a high degree of interpersonal continuity.[25,26,31] This is in line with our results, as our participants wanted few care providers in order to experience continuity. Additionally some female participants in our study also wanted the care providers to make good use of their time in their encounters with them. Using time in their encounters in the way some female participants

expected (entailing greater security and the possibility of being seen as care receivers) is in line with Mehus et al. discussion regarding communication in encounters with care providers.[9] Mehus et al. also found that North Sami who had North Sami as their mother tongue wanted care providers to use time in their encounters so they could have the possibility to present themselves and speak in general terms about broader topics before coming to the point.[9] This can be seen in connection with the results in our study as most of our female participants wanted care providers in their home to use time, even when expressing the use of 'time' in a broader perspective, and not just in relation to communication with possible care providers. Some of our female participants also related time to the care providers competence, as 'time' can be seen as the time that is required to provide good and appropriate care to the care receiver.

Another measure that can be seen as a prerequisite for good care is therefore competence, as stated by both our female and male participants. Research shows that care receivers do expect care providers to be competent when they receive care,[32,33] and this is also emphasised by older persons living in their own homes.[34,35] Our participants are no different in that regard, and this was something most participants in this study stressed when talking about their expectations.

Having care providers with a South Sami background was something that both female and male participants in our study preferred to some degree, even if the female participants stressed this to a higher degree than the male participants. For the male participants, the care providers' competence was given more emphasis, whilst the female participants mostly highlighted the care providers' South Sami background in addition to their competence, as the care providers' South Sami background could entail a deeper understanding of the care receivers. Mehus et al. found that Nord Sami had to act as translators for their relatives when they could not express themselves fully in Norwegian in healthcare encounters.[36] Some also felt they had experienced neglect, discrimination, social isolation and disconnection from Sami culture, as their Sami background was not given sufficient consideration by the healthcare personnel. When talking about the importance of having care providers who were fluent in the South Sami language, the participants in our study did not emphasise this to the same degree, even if more of the female participants mentioned this than the male participants. One reason for this may be that the participants themselves had different levels of mastery of the South Sami language, due to earlier discrimination in conjunction with the Swedish colonisation process, where several lost their South Sami language, or it could be that the participants did not see it as an option to demand that care providers speak the South Sami language. This is in line with an earlier study by Ness, Enmarker and Hellzen.[37] This means that the South Sami people are regarded as bilingual, meaning that the participants in our study are used to speaking Swedish in encounters with e.g., care providers, and have the ability to express themselves in both languages when receiving care, and therefore language issues are not a problem for most South Sami people[12]. Even if the importance of the South Sami language was not stressed by participants in our study, more participants expected to have care providers with a South Sami background because this could mean the care providers would have a deeper understanding of them, as they would be able to understand the codes and the Sami way of living. Mehus et al. found that Sami patients may have another way of communication,[9] e.g., under-communication of their own symptoms, because they do not want to complain, and this could be in line with our results, as some participants would avoid e.g., having to explain their method of communication. In addition, Mehus et al. and Ness et al. found that care receivers feel comfortable in their mother tongue,[9,12] and this was also mentioned by participants in this study. Some of the female participants in our study stated that they preferred care providers with a South Sami background because this could entail a deeper understanding from the care providers, and this could be in line with the results of Mehus et al.,[9] where care receivers could have another way of communicating in encounters with care providers.

Dagsvold, Møllersen and Blix revealed that clinicians had different preconceptions towards patients with a North Sami background in relation to the Sami patient's way of living and way of communicating.[6] The clinicians assumed that the Sami patients wanted to keep their problems within the family, and that the way to communicate for Sami people meant the absence of verbal communication about some topics and indirect communication. In addition, they assumed that Sami patients were more ashamed of having a mental illness, because this was seen as a weakness within their Sami community. Notwithstanding these assumptions, only a few clinicians in the study elaborated on how their assumptions had an impact on their communication with and treatment of the Sami patients. These clinicians revealed that their assumptions about the Sami ways of communicating did not always reflect the actual experience when they met the Sami patient, and they also revealed that they did not have any discussion at their workplace regarding whether they should consider the care receivers' cultural background or not. Dagsvold et al.[6] show that patients with a Sami background are different, which is also described by participants in our study as they had different expectations towards future home healthcare providers. Even if they (care receivers) do have a Sami background, having fixed assumptions as a care provider may be a negative quality, as patients are different even if they have the same cultural background. In addition, Dagsvold et al. also state that care providers must use their competence when meeting all patients,[6] including patients with a Sami background, as all care receivers are different, as shown in our study. Participants in our study preferred having care

providers with a South Sami background, but their most important consideration was still the competence of the care provider, and this was slightly more emphasised by the male participants than the female participants.

METHODOLOGICAL CONSIDERATIONS

This study focused on describing differences in the expectations of older South Sami people in Sweden. One strength of the study is that it has the opportunity to provide an insight into how equally/differently men and women can view a particular phenomenon. The intention is not to generalise the results, but only to highlight the complexity of the expectations of older southern Sami in Sweden with regard to home healthcare. This study can be used for the development of competence regarding home nursing care in relation to older South Sami people and the development of nurses' competence when encountering ethnic minority groups in home nursing care. Fifty-six people were interviewed by telephone, and this could, according to Novic,[38] be seen as a disadvantage when compared to face-to-face interviews. However, telephone interviews were seen as preferable when participants were hard to reach. We also preferred having an interviewer with a South Sami background to conduct the interviews because this, among other reasons, can improve the rigorousness of qualitative research when interviewing participants with a South Sami background, due to consideration of language and communication issues. The interviews lasted from 10 to 30 minutes, and this can be seen as a limitation where important concepts such as competence could only be elaborated on if the participant themselves initiated the discussion.

CONCLUSION AND IMPLICATIONS FOR PRACTICE

Our results revealed both similarities and some slight differences between the male and female participants. Both male and female participants expected the same care providers over time, in addition to expecting competence. Additionally, our female participants stressed that care providers should use time in their encounters with them as care receivers. For some female participants, this was related to competence. The findings also revealed that the care providers' cultural backgrounds were of importance to both female and male participants, even if female participants preferred care providers with a South Sami background to a greater extent than the male participants. The male participants stressed that having care providers with a South Sami background could be of importance, but they were more concerned about the care providers' competence in the encounters with them as future care receivers.

Our study therefore shows that male and female participants have mostly similar expectations to future home healthcare. Having the same care providers over time, and who have competence and preferably a South Sami background, is of importance to our participants. The results indicate that the participants prefer care providers who represent continuity and competence, as this will ensure they receive the best possible home healthcare. Additionally, they prefer their care providers to have a South Sami background, as long as this is not at the expense of competence. Our study therefore indicates that, when possible, in encounters with South Sami women and men, home healthcare services should facilitate for the same care providers over time, namely those with competence and, preferably, a South Sami background.

Our data are based solely on our participants' personal expectations, and our aim is not to generalise the experience of other Indigenous populations. Our results do however stress the importance of cultural sensitivety and the importance of having the same cultural background as the care receivers when providing care as healthcare personel.

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RESEARCH ARTICLES

Reflective practice groups and nurse professional quality of life

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ABSTRACT

Objective: This study aimed to examine the relationship between the quality of reflective practice groups and nurses' professional quality of life.

Background: Previous nursing research has indicated that reflective practice groups are positively associated with personal resources, job resources, and professional quality of life for nurses. The specific impact of the groups however, has not been distinguished from the impact of personal and job resources, and the explanatory mechanisms for the associations are unclear.

Design/Methods: This study utilised a cross-sectional, quantitative research methodology with 184 Australian nurses from a regional teaching hospital who attended reflective practice groups (88.5% female). Surveys captured demographics, personal resources (i.e. self-efficacy), job resources (i.e. job autonomy, skill discretion, job social support, and group cohesion) and perceived quality of reflective practice groups, as measured by the Clinical Supervision Evaluation Questionnaire, alongside professional quality of life outcomes.

Results: Participants who rated reflective practice groups as 'high quality' or more effective were associated with significantly higher scores for personal and job resources of self-efficacy, autonomy, skill discretion, social support, and group cohesion. These resources, in turn, correlated with more positive professional quality of life scores; in particular compassion satisfaction and burnout.

Discussion: While the study used cross-sectional data and causality cannot be inferred, the findings do indicate a clear association between attending effectively facilitated reflective practice groups and greater personal and job resources. This may indicate that the groups provide nurses with an opportunity to build or enhance these resources. Furthermore, it is proposed that this could explain a mechanism by which reflective practice groups can indirectly impact positively on professional quality of life for nurses by building resources. Future research should explore causality longitudinally.

Conclusion: This study provides evidence that nurses who perceive the groups favorably have greater social support, enhanced self-efficacy, more autonomy, and increased skill discretion. These factors also align with the restorative and formative benefits of supervision. Greater personal and job resources, in turn, can enhance professional quality of life. Whilst mediating pathways have been identified, it is still not possible to definitively attribute the development of these resources to group participation.

Implications for Research, Policy, and Practice: There is growing evidence to support reflective practice groups as a viable form of group clinical supervision for nurses. It is important to ensure reflective practice groups are effectively facilitated.

What is already known about the topic? Correlational data indicates that high quality reflective practice groups may offer a cost-effective form of group clinical supervision, for nurses; providing support and helping them deal with what can be a challenging professional environment. Reflective practice groups have been linked to a range of benefits across individual and organisational levels, including; 1) increased job satisfaction, 2) higher quality of patient care, less critical incidents, 3) higher rates of staff retainment and reduced leave, and 4) enhancing the integrity of the nursing profession through accountability and skill development.

What this paper adds Despite these claims, little is known regarding the mechanisms underpinning these documented benefits. This study provides a theoretically driven explanation; that reflective practice groups provide an opportunity for job crafting, in which nurses actively build resources (i.e. skills development critical thinking and social support), mitigating some of the negative psychological consequences associated with nursing. This information can help guide policy, practice, and the development of effective interventions to provide support and supervision for nurses.

Keywords: Nursing, group supervision, reflective practice, compassion satisfaction, burnout, stress.

INTRODUCTION

Nursing can be a rewarding profession, but it can also be stressful. Repeated exposure to human suffering and confounding contextual factors can contribute to a reduction in nurses professional quality of life (ProQoL).[1,2] Low ProQoL within nursing can contribute to increased absenteeism and staff turnover.[3,4] It is anticipated that given the combination of poor retention rates and an ageing workforce, Australia will face a critical nursing shortage; with many nurses now opting for part-time employment.[5] To contextualise, it is expected by 2030 there will be a shortfall of approximately 123,000 Australian nurses, 31% less than required.[6] Developing interventions that can have a positive influence on nursing ProQoL may be one way of meeting this challenge.

BACKGROUND

The construct of ProQoL consists of burnout, secondary traumatic stress, and compassion satisfaction.[2] Burnout has been conceptualised as a negative psychological reaction to prolonged chronic stress, characterised by physical, emotional, and mental exhaustion.[2,7] Secondary traumatic stress occurs when professionals are traumatised after vicariously adopting patient trauma. Burnout and secondary traumatic stress collectively termed as compassion fatigue, encapsulating the negative characteristics of providing care.[2] Compassion satisfaction refers to the positive characteristics, defined as the gratification one derives from their caring role.[2]

The job demands-resources model,[8] provides a framework for understanding how to increase ProQoL. The primary assumption of the job demands-resources model is that employee wellbeing is influenced by specific job characteristics, such as demands and resources. Resources refer to aspects of a job that promote wellbeing through fostering personal growth, enabling employees to achieve goals, or by reducing demands. Resources may occur at a personal level (e.g. self-efficacy) or an occupational level (e.g. managerial support). In contrast, job demands refer to aspects of a job that are associated with costs, as they require sustained effort (physical, emotional, or cognitive) to overcome.[9] Nursing studies using cross-sectional correlational data,[10] and longitudinal evidence,[11] have demonstrated excessive demands predict health impairment processes which increase the risk of burnout. In contrast, job resources have been associated with motivational processes that stimulate work engagement and protect against the negative impact of demands.[12] Given that nurses are faced with a difficult combination of low resources and high demands,[13] it is essential to investigate ways to increase nursing resources to buffer against high workplace demands, and subsequently, increase ProQoL.[1]

Within the nursing field, it is proposed that reflective practice groups (RPGs), a form of group clinical supervision, may provide an opportunity for nurses to increase job resources.[1] RPGs have been presented as both a form of group clinical supervision,[14-17] and a resource.[1] Recent theoretical extensions have included job crafting within the job demands-resources model.[18] Job crafting is defined as a process in which workers independently modify job

demands and resources.[19] By proactively shaping work to suit their own needs, abilities, and preferences, employees experience more satisfaction and work engagement. For instance, Tims and colleagues,[20] found job crafting increased resources (i.e. autonomy, task variety, social support, feedback) in a sample of chemical engineers, revealing a significant increase in wellbeing; lower burnout, increased job satisfaction, and work engagement. Job crafting has been defined as a self-initiated work design process involving proactive strategies to change characteristics of a job in a way that aligns more closely with personal needs, goals, and skills.[18]

It is reasonable to consider RPGs as a job crafting exercise, given that the model defines the groups as voluntary, collaborative and nurse-driven, and with the aim of mitigating stress, increasing skills and supporting nurses with the interpersonal aspects of their work.[14] RPGs explore a range of clinical, professional, ethical and organisational issues within a supportive group setting,[14,21] with a particular focus on the personal and interpersonal aspects of nursing care.[17] Critical reflection is prompted through facilitator interventions directed towards 'the group'; the aim being to access a range of experiences, reactions and perspectives in order to enrichen the reflective experience.[14,17,21] It is reasonable to consider RPGs as a job crafting exercise, given that they are voluntary, nurse-driven and aim to increase skills and support nurses.[14] Nurses have the freedom to direct RPGs in order to align with their needs, however, it is argued that for nurses to proactively foster resources, they need to perceive RPGs as trustworthy and constructive.[16]

Dawber,[14] specified several strategies to promote the delivery of high-quality RPGs within a clinical healthcare setting. For instance, to enhance RPG effectiveness the unique culture of each clinical area and specific requirements and demands was acknowledged. Dawber,[14] also allowed the group to decide the frequency and duration of RPGs and considered workplace dynamics to ensure facilitators enabled the group to address contextual factors (e.g. conflict, unsupportive organisational culture). Furthermore, facilitators must foster psychological safety by embedding principles of confidentiality, openness, mutual respect, and acceptance of diversity throughout RPG discussions. It is advised that conversations during RPG are semi-structured and collaborative, with the facilitator addressing the 'group' rather than individuals to reduce pressure to participate and promote non-threatening communication.[14] Additionally, a 12-month pilot study indicated a high level of nurse satisfaction with the quality of their RPGs,[22] as measured by the Clinical Supervision Evaluation Questionnaire.[21] Overall, it appears that the RPG model proposed by Dawber,[14] parallels many core elements of a job crafting experience. That is, nurses are deemed active agents in aligning RPGs to fulfill their needs.

In line with job crafting principles, consistent with the wider literature, and in keeping with the job demands-resources model, RPG benefits are proposed to stem from the collaborative nature of group interactions; such as gaining social support, cohesion, and connection with peers through sharing and reflecting on clinical information.[14] Higher quality clinical supervision groups have been associated with positive psychological outcomes in cross-sectional correlational research. For instance, higher quality group supervision increased job satisfaction in Finnish mental health nurses,[23] and Danish hospital nurses (N=136), reported more frequent use of rational coping, greater job satisfaction, vitality, and significantly lower burnout and stress.[24] For Finnish hospital nurses (N=148), higher quality group clinical supervision increased job resources (e.g. autonomy, social support) and organisational commitment and lowered burnout.[25] Taken together, this research suggests that attending quality RPGs increase job resources and enhance nurses wellbeing and ProQoL. It is likely that effective group clinical supervision will promote work satisfaction and provide protection from emotional and physical exhaustion.

From a theoretical perspective, it is argued that RPGs provide nurses with opportunities to actively foster job resources to manage their demands, mitigate burnout, and improve ProQoL. However, the mechanisms explaining how RPGs might bring about change are still being empirically tested and therefore, still poorly understood. Despite the lack of quantitative evidence, qualitative studies allude to the benefits of RPGs being consistent with the job demands-resources model.[26,27]

The aims of the present study were to extend previous research by more closely examining the relationship between RPGs and ProQoL in the context of the job demands-resources model; assessing the extent that personal and job resources might mediate (explain) the relationship between more effective RPGs and greater ProQoL. The first aim was to show whether nurses who rated RPGs as higher quality would have significantly higher personal and job resources (i.e. greater levels of self-efficacy, autonomy, skill discretion, job social support, and group cohesion). The second aim was to show how these resources mediate the relationship between more effective RPGs and greater ProQoL, as measured by significantly lower burnout, secondary traumatic stress, and greater compassion satisfaction.

METHODS

DESIGN

Cross-sectional data was collected as part of a larger longitudinal quasi-experimental post-design project, titled 'Evaluating Reflective Practices for Nursing Staff in an Acute Hospital Setting'.

PARTICIPANTS

Registered nurses (*N*=184, 88.5% female) were recruited from hospital wards with RPGs at an Australian public tertiary hospital. Participant demographic and professional characteristics are presented in Table 1. Information regarding RPG participation is presented in Table 2.

TABLE 1: NURSES SOCIODEMOGRAPHIC AND PROFESSIONAL CHARACTERISTICS (*N* = 184)

Variable	*n*	%
Gender		
Male	21	11.50
Female[a]	162	88.50
Nursing speciality		
Mental Health	23	12.50
Medical	85	46.20
Surgical	20	10.87
Other Nursing Area	56	30.43
Mean years nursing experience (SD)	14.48 (11.82)	
Mean hours of work per week (SD)	31.96 (6.36)	

[a] Missing unreported data, *n* = 183. SD, standard deviation.

TABLE 2: SUMMARY OF DESCRIPTIVE STATISTICS OF REFLECTIVE PRACTICE GROUP ATTENDANCE, FREQUENCY OF ATTENDANCE, AND PREFERENCE FOR ATTENDANCE (*N* = 184)

Variable	Frequency	Percent
Attendance		
1 – 6	102	55.4
7 – 12	32	17.4
13 – 18	15	8.2
19 – 24	10	5.4
25 – 32	6	3.3
33+	19	10.3
Frequency of attendance[a]		
Never	2	1.1
Just once	25	13.7
Once a year	10	5.5
Twice a year	34	18.7
Every three months	35	19.2
Every two months	28	15.4
Every month	48	26.4
Preferred frequency of attendance[a]		
Never	2	1.1
When it is convenient	42	23.1
Just when I need it	21	11.5
As often as the groups run	117	64.3

[a] Missing unreported data, *n* = 182.

INTERVENTION

RPGs were delivered using the model proposed by Dawber.[14] This model of RPG is process-focused, semi-structured in nature, and group-led which enables nurses to shape the groups to their needs (e.g. duration, frequency, clinical discussions). Facilitators support nurses to reflect on their practice by providing psychological safety through containment and guidance (i.e. identifying resistance, prompting reflection through gentle questioning and open curiotsity). Facilitators had undergone a six to 12-month training program to deliver RPGs in this model.[14] Nursing staff attended RPGs voluntarily, with RPGs being offered within a designated and protected education time. RPGs were delivered in a confidential space, adjacent to clinical work environments. RPGs were typically delivered as 60-minute sessions, on a fortnightly to monthly basis. Attendance was supported by hospital management; however, managers did not attend.

PROCEDURE

Participants were recruited at the beginning of RPG sessions. Participants were provided with information and consent forms outlining study aims and non-identifiable nature of data, questionnaire, pens, and sealable envelopes to return documentation confidentially. Facilitators and researchers left the room whilst questionnaires were completed. Participants were advised that the data would be used to evaluate the impact of RPGs and its influence on the wider discipline of nursing.

Ethical approval (HREC/18/QPCH/132) was granted by both the hospital and university ethics committees, and informed consent was obtained prior to participation. Participants returned completed consent forms and questionnaires in sealed envelopes. Documents were separated and treated confidentially.

MEASURES

Demographic information included gender, age, weekly working hours, nursing department, and years working in nursing. All instruments demonstrated acceptable psychometric properties for use with nursing populations.

Reflective practice group quality. Nurse perception of RPG quality was measured using the 14-item Clinical Supervision Evaluation Questionnaire (CSEQ).[21] Participants were prompted to reflect on their previous experiences attending RPGs and respond by indicating their agreement to each item. Items were rated from (-2) *strongly disagree* to (2) *strongly agree*. Higher scores indicated higher perceptions of RPG effectiveness. The CSEQ was developed to assess three overarching components of group based clinical supervision groups, the purpose, process, and impact of the RPGs, as theorised by Proctor and colleagues.[28] That is, do nurses perceive RPGs as meeting their own needs and

needs of the service (purpose), experience RPGs as providing support (process), and lastly, perceive RPGs as facilitating positive change (impact).[21,28] Items for the CSEQ were generated through input from group facilitators delivering clinical supervision and through literature focused on evaluating clinical supervision groups. Construct validity was demonstrated through scores on the CSEQ positively correlating with expected outcome measures, such as general measure of staff perception of clinical supervision.[21] The CSEQ was chosen as it was developed to evaluate group clinical supervision, which was aligned with the "non-managerial peer group" style supervision offered within the current study.[14] The CSEQ demonstrated reliability within the current study (α=.93) which is consistent with previous research.[29] Scores for the CSEQ are summed, with higher scores indicating greater perception of RPG effectiveness. Scores range from -16 to 24, with scores greater than 14 indicating a positive perception. Based on mean scores on the CSEQ, nurses within the current study appeared to perceive RPGs as positive intervention (see Table 3).

Self-efficacy. Self-efficacy was measured using the 10-item Generalised Self-Efficacy Scale.[30] Items were rated from (1) *not at all true* to (4) *exactly true*. Items were summed, with total scores ranging from 10 to 40. Higher scores reflected greater levels of self-efficacy. This scale demonstrated good internal consistency within the current study (α=.85).

Job autonomy. Autonomy was measured using the four-item Job Autonomy Scale.[31] Items were rated from (1) *never* to (5) *always*. Items were totalled, ranged between 4 and 20, and higher scores indicated greater levels of autonomy. Cronbach's alpha within the current study was .85.

Skill discretion. Job skill discretion was measured using the six-item Skill Discretion Scale.[32] Items were rated from (1) *strongly disagree* to (5) *strongly agree*. Items were summed, with scores ranging between 6 to 30, with higher scores indicate greater skill discretion. This scale demonstrated acceptable internal consistency (α=.60).

Job social support. Job social support was measured using the four-item Job Social Support Scale.[33] Items were rated from, (1) *strongly disagree* to (5) *strongly agree*. Items were summed, with scores ranging from 4 to 20, with higher scores indicating greater job social support. This scale demonstrated good internal consistency within the current sample (α=.79).

Group cohesion. Group cohesion was measured using the seven-item Group Cohesiveness Scale.[34] Items were rated from (1) *strongly disagree* to (5) *strongly agree*. Cronbach's alpha within the current study was good (α=.86).

Professional quality of life. Professional quality of life was measured with the 30-item ProQoL-5 scale,[2] divided into three 10-item subscales: Burnout, '*I feel trapped in my job as a nurse*' (α=.77); Secondary Traumatic Stress, '*I feel as though I am experiencing the trauma of someone I have cared for*' (α=.81); and Compassion Satisfaction, '*I believe I can make a difference through my work*' (α=.84). Items were rated from (1) *never* to (5) *very often*. Scores for each subscale were summed and converted to *t*-scores, with a mean of 50 and standard deviation of 10. Higher scores on Compassion Satisfaction and low scores on Burnout and Secondary Traumatic Stress suggest better professional health. Percentile cut offs are provided for low, moderate, and high levels of each component of professional quality of life.[2]

DATA ANALYSIS

Analyses were conducted with the Statistical Package for the Social Sciences (SPSS; Version 24.0) program. To verify the mediating effect of personal and job resources (i.e. self-efficacy, autonomy, skill discretion, social support, and group cohesion) on the relationship between greater RPG quality and greater ProQoL (as measured by lower burnout, lower secondary traumatic stress, and greater compassion satisfaction), three separate parallel mediation regression analyses were conducted using the PROCESS macros (Model 4), Version 3.0 for SPSS.[35] All assumptions of multiple regression were met. There was no assumed causal ordering or reverse causality effects between examined variables.

Mediation regression examines the relationship between *X* and *Y*, where *X* is the predictor variable, M_j refers to mediator variables that transmit the causal effect of *X* to *Y*, and *Y* is the outcome.[35] The conceptual model of the hypothesised relationship is shown in Figure 1. In parallel mediation regression analysis, blocks of variables are examined to determine whether mediation has occurred. Blocks include; total effect, direct effect, and indirect effect. The total effect (*c*) represents a combination of a direct effect (*c'*) of *X* on *Y* and indirect effect (*ab*) of *X* on *Y*, which is transmitted through *M*. That is, the total effect between *X* and *Y* is comprised of a direct relationship and an indirect relationship. As shown in Figure 1, pathways are labelled as follows: '*a*' pathway ($X \rightarrow M$), '*b*' pathway ($M \rightarrow Y$), and the specific indirect effect '*ab*' pathway ($X \rightarrow M \rightarrow Y$).

CSEQ scores measuring the effectiveness of RPGs, were entered across all models as the predictor variable (*X*). Self-efficacy (M_1), autonomy (M_2), skill discretion (M_3), social support (M_4), and group cohesion (M_5) were entered simultaneously (i.e. parallel mediators) for all analyses. The three outcomes (*Y*) were Burnout, Secondary Traumatic Stress, and Compassion Satisfaction. Bias-corrected confidence intervals were calculated using 10,000 bootstrap samples. Mediation is significant if the confidence interval of the specific indirect effect excludes zero. The sample size of 184 was deemed acceptable in accordance with Fritz and Mackinnon's,[36] empirical estimates of sample size needed for .80 power (α=.05).

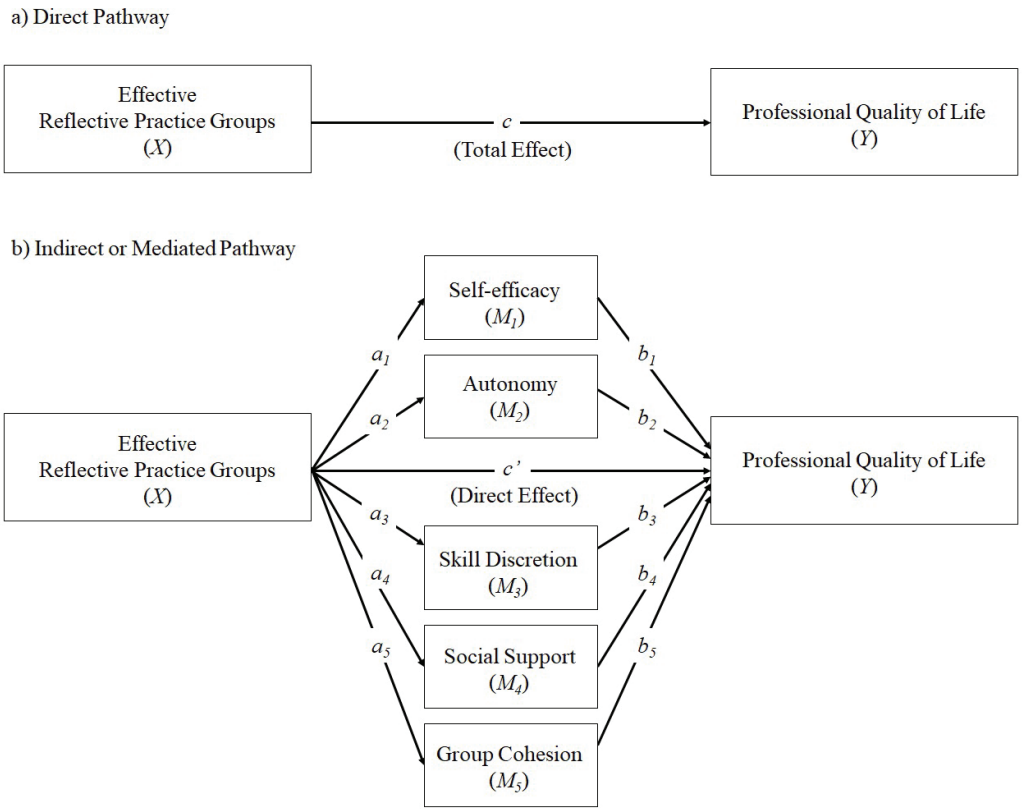

FIGURE 1: CONCEPTUAL DIAGRAM OF A PARALLEL MULTIPLE MEDIATION MODEL TESTING THE RELATIONSHIP BETWEEN THE EFFECTIVENESS OF RPGS, AS MEASURED BY CSEQ AND PROQOL (AS MEASURED BY BURNOUT, SECONDARY TRAUMATIC STRESS, AND COMPASSION SATISFACTION). PATHWAYS HAVE BEEN NUMBERED 1 TO 5 BASED ON THE CORRESPONDING PROPOSED MEDIATOR VARIABLE.

RESULTS

Mean scores, standard deviations, and correlations between study variables are presented in Table 3. Participants who perceived RPGs as more effective reported significantly lower levels of burnout and significantly higher levels of self-efficacy, autonomy, skill discretion, social support, group cohesion, and compassion satisfaction. Unexpectedly, the correlation between RPG quality and secondary traumatic stress was insignificant and in the positive direction.

TABLE 3: MEANS, STANDARD DEVIATIONS, AND ZERO-ORDER CORRELATIONS BETWEEN REFLECTIVE PRACTICE GROUP QUALITY, SELF-EFFICACY, AUTONOMY, SKILL DISCRETION, SOCIAL SUPPORT, GROUP COHESION, BURNOUT, SECONDARY TRAUMATIC STRESS, AND COMPASSION SATISFACTION (*N* = 184)

Variable	M	(SD)	1	2	3	4	5	6	7	8	9
1. RPG Quality	15.70	(7.43)	–								
2. Self-efficacy	31.20	(3.41)	.33**	–							
3. Autonomy	13.49	(2.65)	.23**	.32**	–						
4. Skill Discretion	24.23	(2.58)	.39**	.26**	.21**	–					
5. Social Support	16.16	(2.53)	.18*	.18*	.36**	.25**	–				
6. Group Cohesion	27.35	(3.51)	.31**	.25**	.32**	.26**	.49**	–			
7. Burnout	50.38	(9.94)	–.18*	-.37**	–.45**	-.22**	-.36**	–.26**	–		
8. Secondary Traumatic Stress	50.10	(9.98)	.09	-.21**	–.26**	-.08	-.27**	–.03	.57**	–	
9. Compassion Satisfaction	49.71	(10.15)	.23**	.32**	.43**	.35**	.38**	.30**	–.73**	–.29**	–

M, Means; SD, Standard Deviation; RPG Quality, Reflective Practice Group Quality as measured by scores on Clinical Supervision Evaluation Questionnaire. *$p < .05$; **$p < .01$; ***$p < .001$.

RELATIONSHIP BETWEEN RPG QUALITY AND RESOURCES

TABLE 4: THE STANDARDISED INDIRECT EFFECTS FOR THE RELATIONSHIP BETWEEN EFFECTIVE REFLECTIVE PRACTICE GROUPS AND PROFESSIONAL QUALITY OF LIFE THROUGH THE MEDIATORS OF SELF-EFFICACY, AUTONOMY, SKILL DISCRETION, SOCIAL SUPPORT AND GROUP COHESION

X	M	Y	Total Effect		Direct Effect		Indirect Effect		
			(c)		(c')		(a × b)	95% CI	
			B	(SE)	B	(SE)	β	LL	UL
RPGs	Self-efficacy	BO	–0.23*	(0.10)	0.03	(0.96)	–.08*	–0.13	–0.03
	Autonomy						–.07*	–0.12	–0.02
	Skill Discretion						–.02	–0.08	0.03
	Social Support						–.04*	–0.08	–0.001
	Group Cohesion						–.001	–0.05	0.05
RPGs	Self-efficacy	STS	0.18	(0.10)	0.29**	(0.10)	–.06*	–0.12	–0.01
	Autonomy						–.04*	–0.09	–0.01
	Skill Discretion						–.02	–0.09	0.04
	Social Support						–.05*	–0.10	–0.01
	Group Cohesion						.05*	0.01	0.10
RPGs	Self-efficacy	CS	0.31**	(0.10)	–0.01	(0.10)	.04	–0.003	0.10
	Autonomy						.06*	0.02	0.10
	Skill Discretion						.08*	0.02	0.15
	Social Support						.04*	0.002	0.08
	Group Cohesion						.01	–0.04	0.06

N = 184. *X*, predictor variable; *M*, mediating variable; *Y*, outcome variable; RPGs, reflective practice group effectiveness, as measured by scores on Clinical Supervision Evaluation Questionnaire; BO, Burnout, STS, Secondary Traumatic Stress, CS, Compassion Satisfaction; CI, confidence interval; LL, lower limit; UL, upper limit. Significant findings are in boldface. *$p < .05$; **$p < .01$; ***$p < .001$.

First, the *a* paths were examined. That is, the relationship between higher quality RPGs (i.e. higher scores on CSEQ) and each mediator (i.e. self-efficacy, autonomy, skill discretion, social support, and group cohesion). Standardised coefficients are presented in Figures 2 to 4 and reveal significant positive relationships between CSEQ scores and all proposed resources. That is, higher quality RPGs predicted significantly greater self-efficacy (R^2=.11, F(1,182)=21.57, p<.001), autonomy (R^2=.05, F(1,182)=9.79, p<.01), skill discretion (R^2=.15, F(1,182)=32.48, p<.001), social support (R^2=.03, F(1,182)=6.33, p<.05), and group cohesion (R^2=.09, F(1,182)=18.71, p<.001). This suggests attending more effective (high quality) RPGs fosters self-efficacy, autonomy, skill discretion, social support, and group cohesion.

THE MEDIATING ROLE OF PERSONAL AND JOB RESOURCES

To assess whether the relationship between higher quality RPGs and greater ProQoL was mediated (explained) by the mediators, the following were examined for each component of ProQoL; total effect (*c*), direct effect (*c'*), effect of mediators (*b*), and lastly, specific indirect effects (*ab*).

Burnout. The standardised coefficients of pathways between RPG quality and Burnout scores are presented in Figure 2. As shown in Table 4, there were significant specific indirect effects from RPG quality to Burnout via self-efficacy, autonomy, and social support (i.e. the 95% confidence interval excluded zero). The findings indicate that the relationship between more effective RPGs and lower Burnout was completely mediated (explained) by self-efficacy, autonomy, and social support.

Secondary Traumatic Stress. The standardised coefficients depicting the relationship pathways between quality RPGs and Secondary Traumatic Stress are presented in Figure 3. The overall model explained significant variance in Secondary Traumatic Stress, R^2=.18, F(6,177)=6.37, p<.001. Total effect revealed that higher scores of RPG quality did not significantly predict lower Secondary Traumatic Stress scores. However, after accounting for the mediators, the direct effect was increased and revealed a significant positive relationship. The unexpected finding, that more effective RPGs significantly increased Secondary Traumatic Stress, should be interpreted cautiously due to the presence of suppression (i.e. direct > total effect). Higher scores on self-efficacy,

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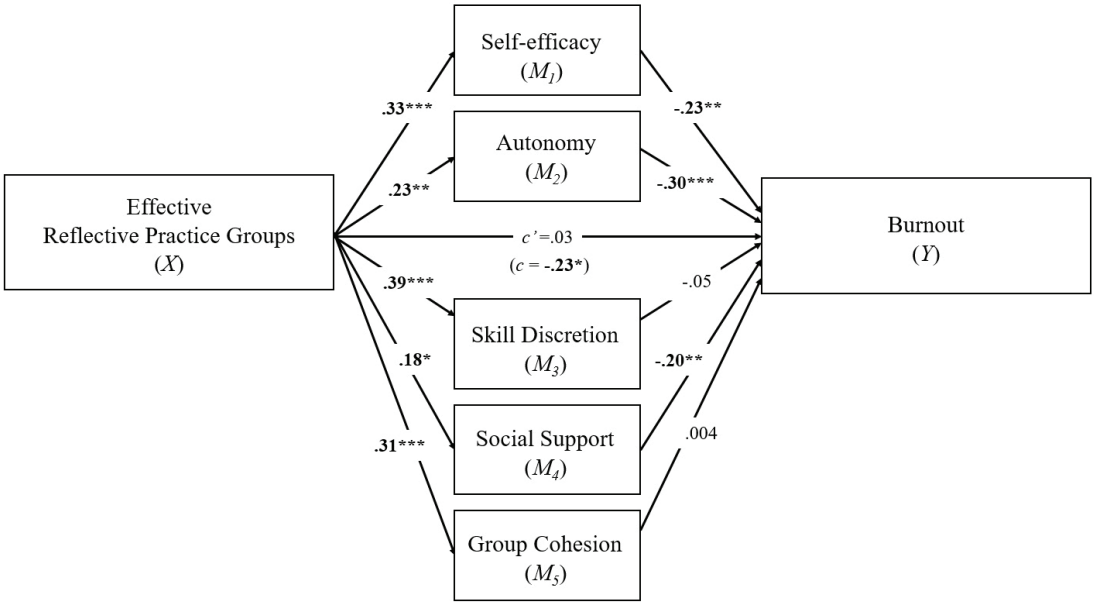

FIGURE 2: STANDARDISED REGRESSION COEFFICIENTS FOR THE PARALLEL MEDIATION MODEL TESTING THE INDIRECT RELATIONSHIP BETWEEN QUALITY REFLECTIVE PRACTICE GROUPS AND BURNOUT THROUGH THE MEDIATORS OF SELF-EFFICACY, AUTONOMY, SKILL DISCRETION, SOCIAL SUPPORT, AND GROUP COHESION (*N* = 184). *C* = TOTAL EFFECT. *C'* = DIRECT EFFECT. **P* < .05; ***P* < .01; ****P* < .001.

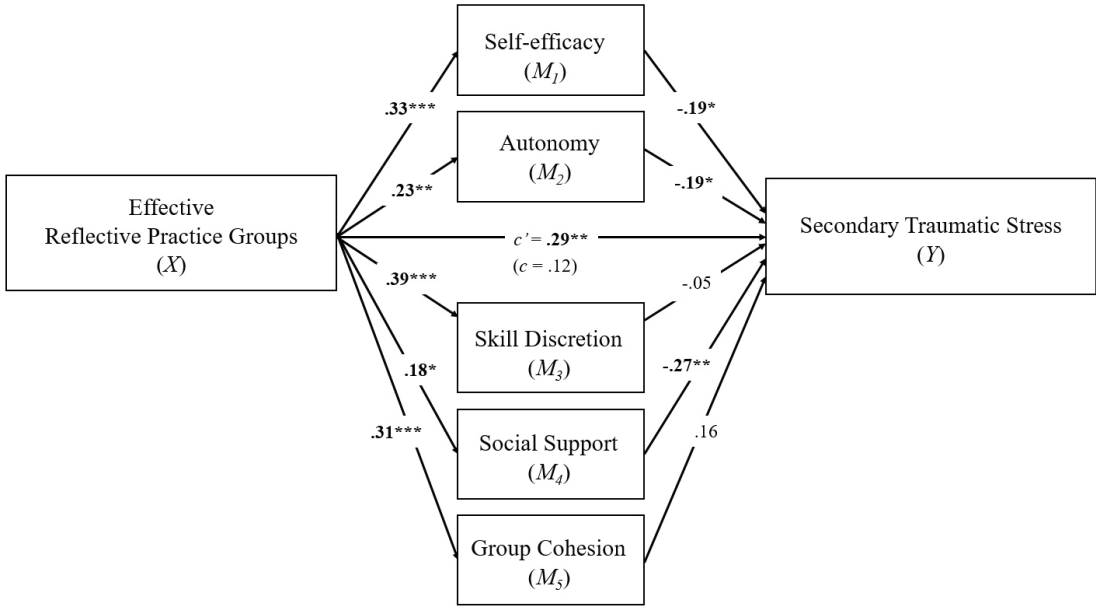

FIGURE 3: STANDARDISED REGRESSION COEFFICIENTS FOR THE PARALLEL MEDIATION MODEL TESTING THE INDIRECT RELATIONSHIP BETWEEN MORE EFFECTIVE REFLECTIVE PRACTICE GROUPS AND SECONDARY TRAUMATIC STRESS THROUGH THE MEDIATORS OF SELF-EFFICACY, AUTONOMY, SKILL DISCRETION, SOCIAL SUPPORT, AND GROUP COHESION (*N* = 184). *C* = TOTAL EFFECT. *C'* = DIRECT EFFECT. **P* < .05; ***P* < .01; ****P* < .001.

autonomy, and social support significantly predicted lower Secondary Traumatic Stress scores. The relationship between group cohesion and Secondary Traumatic Stress was in the positive direction and approached significance (p=.051).

As shown in Table 4, there were significant indirect effects from RPG quality to lower Secondary Traumatic Stress through self-efficacy, autonomy, and social support.

The specific indirect effect via group cohesion was also significant, although in a positive direction, indicating negative suppression (i.e. path and correlation in opposition directions) is present in the model and again should also be interpreted cautiously. Overall, these findings suggest the relationship between more effective RPGs and lower Secondary Traumatic Stress was partially mediated by self-efficacy, autonomy, and social support.

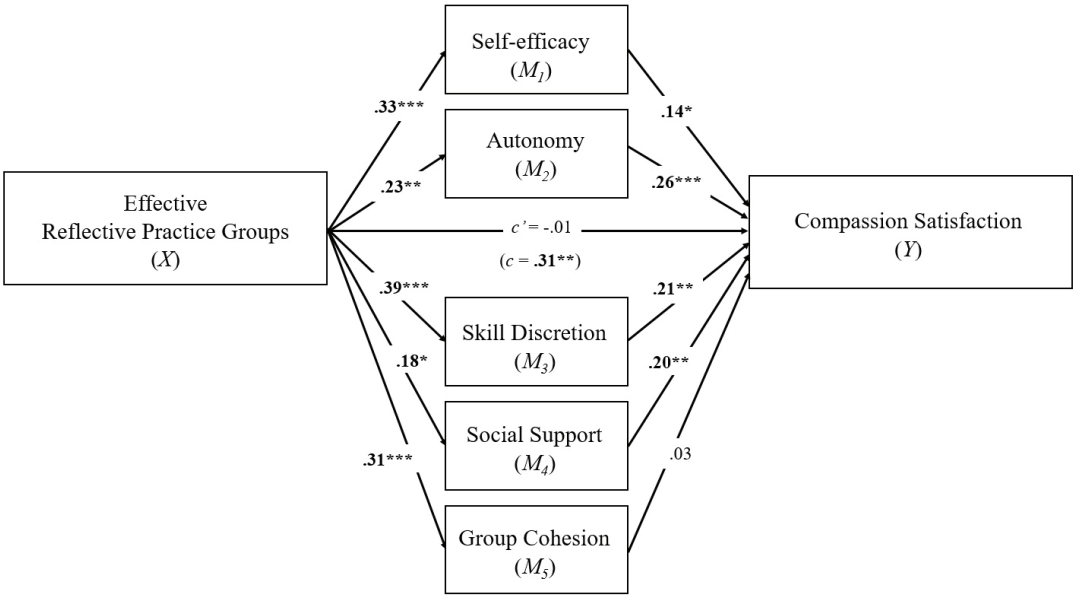

FIGURE 4: STANDARDISED REGRESSION COEFFICIENTS FOR THE PARALLEL MEDIATION MODEL TESTING THE INDIRECT RELATIONSHIP BETWEEN MORE EFFECTIVE REFLECTIVE PRACTICE GROUPS AND COMPASSION SATISFACTION THROUGH THE MEDIATORS OF SELF-EFFICACY, AUTONOMY, SKILL DISCRETION, SOCIAL SUPPORT, AND GROUP COHESION (*N* = 184). *C* = TOTAL EFFECT. *C'* = DIRECT EFFECT. **P* < .05; ***P* < .01; ****P* < .001.

Compassion Satisfaction. The standardised coefficients depicting the relationship pathways between quality RPGs and Compassion Satisfaction scores are presented in Figure 4. The overall model accounted for significant unique variation in Compassion Satisfaction scores, R^2 =.29, $F(6,177)=12.39$, $p<.001$. Total effect pathway revealed higher scores of RPG quality significantly predicted greater Compassion Satisfaction scores. Controlling for the mediators, the direct effect decreased and was rendered non-significant. Higher scores of self-efficacy, autonomy, skill discretion, and social support significantly predicted greater Compassion Satisfaction scores, whereas group cohesion did not significantly contribute. As shown by Table 4, there were significant specific indirect effects from RPG quality to Compassion Satisfaction via autonomy, skill discretion, and social support. These findings indicate that the relationship between more effective RPGs and greater Compassion Satisfaction was completely mediated by autonomy, skill discretion, and social support.

DISCUSSION

The present study aimed to extend previous research by exploring the relationship between the quality of RPGs (as determined by nurses who attend), personal and job resources, and ProQoL. Findings indicated that nurses who rated their RPGs more highly also scored higher for self-efficacy, autonomy, skill discretion, social support, and group cohesion. After considering the possible explanatory role of all resources in parallel, some appeared to be more closely implicated in the relationship between higher quality RPGs and greater ProQoL; specifically significantly lower burnout, secondary traumatic stress, and increased compassion satisfaction. Interestingly, the apparent link between each resource and the different ProQoL components varied; with autonomy and social support found to be the most constantly associated resources across all components, and group cohesion the least.

In terms of the first aim of this study, results revealed that nurses who attended what they perceived to be higher quality RPGs reported significantly greater resources of self-efficacy, autonomy, skill discretion, social support, and group cohesion. The data might suggest that nurses with higher personal and job resources appreciate RPGs and rate them more highly, however it could also indicate that nurses who perceive RPGs as beneficial are able to cultivate a range of resources. This would be consistent with the themes emerging from previous qualitative studies that indicate nurses perceive a range of benefits from RPG attendance including support, collaborative learning, job confidence and skills development.[16,22,26,37-39] It is proposed that the findings of the study can be conceptualised through a job crafting lens. The RPG model proposes that groups be implemented in a way that engages and empowers the nursing work group. RPGs are voluntary and utilise a semi-structured, collaborative, process-focussed facilitation approach to create a sense of psychological safety and enhance reflection. The aim is to allow nurses to access benefits in a way that considers the specific needs of both the individual and the work group.[1,14,16,22,25] Gordon and colleagues,[40] proposed

that job crafting interventions allowed nurses to seek out resources; sourcing new opportunities for autonomy, social support, learning, and professional development. The present study contributes to job crafting literature by utilising the job demands-resources model as a framework to explore the relationship between quality RPGs, conceptualised as a job crafting exercise, and a range of personal and job resources.

The second aim of the study was to explore how the presence of various personal and job resources might be seen to mediate the relationship between more effective RPGs and greater ProQoL These findings will be discussed in order of relative value, as determined by the strength of the correlation between resources and higher nurse ProQoL. Autonomy and social support were found to be those most consistently linked to each of the ProQoL outcomes.

AUTONOMY AND SOCIAL SUPPORT

The current study indicates that autonomy and social support significantly mediate the relationship between higher quality RPGs and all components of enhanced ProQoL, including reduced burnout, reduced secondary traumatic stress, and increased compassion satisfaction. Once again, it might be that more resilient nurses with higher ProQoL value the groups more, however it is also possible that attending effective RPGs might have a positive impact on nurses' sense of control over certain aspects of their work, whilst cultivating a culture of support within the workplace. In addition, nurses experiencing less compassion fatigue may be better equipped to manage patient distress and derive a greater sense of fulfilment from their work.

The current study is the first to explore possible mechanisms for the relationship between RPGs and ProQoL of nurses. As such, there is a lack of research against which to directly compare present findings. Nonetheless, findings do appear to be broadly consistent with the job demands-resources model. For example, job crafting interventions have been found to increase autonomy and social support significantly and this has been associated with increased job performance,[41] work engagement, and decreased negative affect.[42]

Previous research has indicated that the clinical discussions facilitated during RPGs allow nurses to gain new clinical insights and this may help them manage clinical issues more effectively. This might empower nurses to act more independently in their practice, thereby providing a sense of autonomy.[43] This would be consistent with longitudinal studies of nurses that indicate autonomy significantly predicts lower burnout,[44] increased job satisfaction,[45] and work engagement.[33]

Social support has also been found to reduce the level of distress associated with stressful experiences.[46] Qualitative evidence has suggested that quality RPGs provide the opportunity for nurses to gain social support in several ways; emotional support (feeling accepted), informational support (guidance, advice) and social companionship.[16,47] This notion aligns with the concept of job crafting within the job demands-resources framework, as RPGs enable nurses to source different forms of support to help mitigate workplace stress.[16,22,37,39]

Taken together, autonomy and social support would appear to be influential mechanisms in the relationship between more effective RPGs and increased ProQoL. It is still not possible to categorically determine cause and effect, but this correlation suggests that nurses could increase resilience by utilising their skillset and by sharing their concerns with supportive team members in RPGs.

SELF-EFFICACY

Findings from the current study revealed that self-efficacy significantly mediated the relationship between higher quality RPGs and two components of ProQoL: reduced burnout and secondary traumatic stress. Attending more effective RPGs may foster nurses' confidence in their ability to deliver effective care.

When considered within the job demands-resources model, this suggests that RPGs might serve to empower nurses to cultivate confidence in their ability to manage work stress, allow then to process emotional labour, and help them to feel more effective within their role. In accordance with Bandura,[48] attending quality RPGs possibly fosters self-efficacy through a mixture of vicarious experiences, verbal persuasion from colleagues, and reflection on performance accomplishments. As self-efficacy grows, nurses may begin to perceive difficult tasks (e.g. work overload) as challenges, reducing feelings of stress, anxiety, and helplessness.

An unanticipated finding from the current study was that the indirect path, through self-efficacy, between the quality of RPGs and Compassion Satisfaction did approach, but was not quite, significant. Future research in larger samples may further clarify the relationships of influential factors for the compassion satisfaction component of ProQoL.

SKILL DISCRETION

Findings from the current study indicate that skill discretion mediates the relationship between higher quality RPGs and increased compassion satisfaction. This could be seen to indicate that effective RPGs might provide the opportunity for creativity and the learning of new skills. One possible explanation for this apparent relationship might be that nurses perceive themselves as being able to provide greater quality care due to the gaining of new clinical insights and skills in RPGs. A longitudinal study by Petrou and colleagues,[49] found participants who attended a job crafting intervention reported significantly greater skill discretion and work engagement 12-months later.

In contrast, skill discretion did not appear to mediate the relationship between quality RPGs and reduced burnout or secondary traumatic stress. That is, the perception that they were gaining clinical insights and abilities through RPGs did not seem to affect nurses perceived effectiveness within their role nor protect them from being affected by their patients' suffering. This contrasts with earlier research, which found lower skill discretion in human service workers was associated with greater burnout.[50] This disparity could be explained by the different job demands of hospital-based nursing, such as high workloads, long hours, and time pressures. It is conceivable that under such conditions, applying new skills may be more difficult.

GROUP COHESION

Unexpectedly, and in contrast to the job demands-resources model, group cohesion did not appear to mediate relationships between quality RPGs and increased ProQoL. Although quality RPGs did appear to increase feelings of trust, acceptance, and empathy for fellow nurses, this did not necessarily translate into an increased sense of meaning or role effectiveness. These results differ from previously published nursing studies that found group cohesion was associated with significantly greater ProQoL and greater job satisfaction.[51,52] This may be explained by the fact that these other studies may not have explored the relationship between group cohesion and ProQoL in the presence of other job resources.

Interestingly, the current study also revealed that increased group cohesion was associated with greater secondary traumatic stress in the mediation model, but not the correlations. This finding, along with the direct effect of RPGs being greater than the total effect, indicates suppression. The results for these variables should be interpreted with caution as group cohesion and social support were strongly and positively correlated. It could be speculated that nurses who attend RPGs might experience vicarious trauma when distressing clinical cases are discussed and colleague's reactions to traumatic experiences are explored, eliciting identification and empathetic interpersonal connections between colleagues. Additional research is needed to elucidate the complex relationships between group cohesion, social support, and secondary traumatic stress and the experience of working through traumatic work events within RPGs.

Collectively, the findings from the present study indicate that the relationship between effective RPGs and greater ProQoL may be mediated by several key personal and job resources. Whilst cause and effect are still not clear, and the link may be that nurses with higher levels of personal resources appreciate RPGs more, the study does support previous research that indicates the benefits of quality RPGs might stem from the provision of a trustworthy, supportive and constructive space in which nurses can actively develop these important resources,[16,22,39] positively impacting ProQoL.[1] Given that specific resources seem to have differing effects on each component of ProQoL, a growing body of evidence is beginning to identify the potential of RPGs in providing a valuable and practical intervention that provides nurses the opportunity to access a range of benefits that align with, and address, their individual needs and the needs of the workgroup.[16,22,37]

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This study utilised a cross-sectional design to test an assumed causal relationship and results should be interpreted with care. Whilst there is strong theoretical support for the proposed relationship, it is imperative that future studies examine causality longitudinally. This is important as it is possible that individuals with greater ProQoL are more likely to attend RPGs and perceive the groups more positively. Although beyond the scope of this study, it is also possible that relationships between RPG quality and ProQoL are moderated by individual or environmental factors (e.g. personality, number of RPGs attended, and managerial support of RPGs). Future studies may benefit from investigating the moderating role of such factors. It is also recommended future studies clarify the complex relationship between RPGs, group cohesion, and secondary traumatic stress. Despite these limitations, the current study contributes to the nursing literature by providing a theoretically driven model to explain how attending effective RPGs increases nurses ProQoL.

CONCLUSION

The current study is the first to explore the mediating mechanisms in which the job crafting experience of quality RPGs might influence nurses ProQoL. Results indicate that effective RPGs may increase nurses' personal and job resources of self-efficacy, autonomy, skill discretion, social support, and group cohesion. These findings pose some theoretical implications within the framework of the job demands-resource model and the function of job crafting. That is, that voluntary attendance at quality RPGs may allow nurses to proactively develop strategies and resources that buffer against workplace demands, thereby mitigating the negative effects of ProQoL and supporting compassion satisfaction.

Overall, the findings provide further indications that quality RPGs[15,16] are an effective clinical supervision intervention that could allow healthcare organisations to support and empower nurses and help them deal with the challenges of their profession.

RELEVANCE FOR CLINICAL PRACTICE

Based on the results of this study, it is important to ensure RPGs are of high quality and effective.[15,16] By actively identifying signs that members are seeking social support, facilitators can help other group members recognise subliminal invitations and model effective ways of providing such support. When considering RPGs within a job crafting perspective, facilitators need to strike a balance between offering guidance and providing nurses freedom to direct discussions. Based on current findings, it seems beneficial that RPGs be delivered in an unstructured or semi-structured group format with voluntary attendance and no managerial coercion. Empowering nurses to be active agents in the RPG process enhances the formative and supportive aspects of the groups, whilst providing an opportunity to positively impact nursing ProQoL.

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Conflict of Interest: CD maintains a private supervision practice under the name 'Reflective Practice Group'.

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REVIEWS & DISCUSSION PAPERS

A nurses' guide to using models of reflection

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ABSTRACT

Objective: This scholarly paper aims to discuss the importance of reflective practice in nursing, both theoretically and clinically, for undergraduate and graduate nurses. The article also aims to provide direction by comparing and contrasting four reflective models to provide a basis for self-reflection.

Primary argument: The Nursing and Midwifery Board of Australia requires nurses to be reflective practitioners. Gaining greater knowledge of different models of reflection may aid nurses, both undergraduate and graduate, to enhance their clinical and theoretical knowledge through reflection in their day-to-day practice. Registered nurses may develop their practice through reflecting on their actions, experiences, knowledge, feelings and beliefs to shape their ongoing education and practice.

Conclusion: There is an expectation from registering authorities for nurses to be reflective practitioners. This paper provides information on four different models of reflection, discussed in a systematic and logical order, with a view to highlighting the value of their use to support reflective practice. A comparative framework is provided to highlight similarities and differences. A personal reflection, based on a real-life event, using one of the models is included to provide an authentic example.

Keywords: Reflection, reflective practice, nursing standards, models of reflection, assumptions.

INTRODUCTION

Reflection has a long history and has relevance to many professions. Dewey, some 90 years ago, became a passionate advocate for education and the need to reflect.[1] He believed that reflecting on a person's own practice required courage and open-mindedness.[1] Reflection can be seen as a process of making sense of experience in order to move on and do better as a practitioner.[1,4,5] This is further reinforced by Marshall who provides the definition of reflection as "a careful examination and bringing together of ideas to create new insight through ongoing cycles of expression and re-evaluation".[6] Reflective practice is an integral aspect of nursing education and practice. Currently the Nursing and Midwifery Board of Australia (NMBA) encourages nurses to reflect on their experiences to improve and shape their practice, as does the Royal College of Nursing (RCN) in the United Kingdom.[2,3] The reflecting practitioner needs to be willing to take on board, and act on, constructive criticism. This belief is supported by Bulman and several colleagues who argue reflection can be used to inform and change future practice by reviewing, analysing and evaluating experience.[4,5]

Sources of reflection may include everyday events, positive experiences, negative experiences, eventful incidents, unusual incidents, routine activities, important events and meaningful events. Nurses experience many incidents and situations every day. Examples of this may include an incorrect drug administration, a lecturer being unhelpful, unconstructive criticism in essay feedback, supporting a family in need, a kind comment from a colleague, the birth of a new baby, or a rapid response. Each example is individual

to the patient, the situation, or the experience of the nurse. By comparison, models of reflection have common themes generally including a description of the event, how the event made the person feel, an evaluation of whether it was a good or bad experience, analysing an area for learning, coming to a conclusion and considering changes that may need to be made. This is important because it aids nurses to think about, plan and deliver high quality and safe care to their patients.[1,2,8]

SELF-REFLECTION IN NURSING

Central to the discussion are the ramifications for nursing practice as well as providing evidence to the NMBA.[2] Self-reflection is an essential skill for all nurses to develop including nurse educators who are required to reflect on their teaching practice.[7] Self-reflection, together with confidence building, is considered a specific requirement for the advancement of educators, especially those who are new to the nursing faculty.[7] Skills for self-reflection include self-awareness which enables a person to analyse their feelings.[5,6] By necessity, self-reflection involves an honest examination of how a situation has affected the person and is intrinsic to enabling the nurse to process experiences, explore actions and evaluate their understanding of those experiences.[8] The person who is reflecting will need to be able to clearly describe the incident or situation. This involves the ability to recognise, and recollect accurately, significant events, and key features, of an experience to then give a more precise account of the situation. The nurse as a reflective practitioner should be able to analyse an experience which involves examining the components of the situation, identifying existing knowledge, challenging assumptions and exploring alternatives. [8] A critical analysis of knowledge needs to be undertaken which involves examining how relevant knowledge is to an individual situation. The integration of this new knowledge with previous knowledge is called synthesis.[6,8] It can be used in a creative way to solve problems and predict likely consequences of actions. Finally, the event or experience needs to be evaluated enabling a judgement to be made about the value of something. Synthesis and evaluation are crucial to the development of a new perspective.[1,2,6,8]

MODELS OF REFLECTION

Many models of reflection have been developed over the years but due to the need to be succinct only four will be discussed. The models were chosen because they employ different approaches but allow the reflective practitioner to follow the steps of self-awareness, description, critical analysis, synthesis and evaluation. The models are presented in a comparative framework below to juxtapose their style and content. The four models chosen are known as the Gibbs Reflective Cycle,[10] Kolb's Reflective Cycle,[11,12] Atkins and Murphy's Model of Reflection,[13,14] and Borton's Framework for Reflection.[15,16] The four models are all relevant, logical and appropriate to current education and nurse education.[10,12,14,17,18]

Gibbs Reflective Cycle

Gibbs Reflective Cycle, developed in 1988, is a systematic, logical and cyclical process encompassing six stages which is demonstrated below. The example below provides a sample reflection, using the Gibbs' model, to highlight how a model can be used to foster self-reflection.[10] This reflective cycle uses its stages to encourage nurses to think methodically about the phases of an experience or activity.[10] Models such as Gibbs, and others discussed in this paper, have overlapping components which are all engaged in providing a platform for directing a reflective process. Education bodies may request the use of a specific reflective model, preferred by their institution. For example, The University of Edinburgh believes the Gibbs' model is an effective way to work through an experience, stating Gibbs' original intended use was for repeated situations however the model's stages also apply equally well to single experiences.[10] The first stage requires a **Description** of the experience, followed by the second stage, the person's **Feelings** and thoughts about the experience.[10] This stage is followed by an **Evaluation** of the experience considering both the good and bad aspects.[10] The fourth stage is the **Analysis** to make sense of the situation allowing the arrival at the fifth stage, the **Conclusion** where the reflecting person can consider what they have learned and what they could have done differently.[10] These five stages lead sensibly to making an **Action Plan** on how the reflecting person would address similar situations in the future, as well as changes they might make.[10] Implementation of the Action Plan can lead to future reflection and a return to the start of the cycle. For further depth, a helpful Reflection Toolkit, provided by the University of Edinburgh, is listed below.[10]

Kolb's Experiential Learning Cycle

In 1984, Kolb published his Experiential Learning Cycle which involves four stages, namely: **Concrete Experience, Reflective Observation, Abstract Conceptualisation** and **Active Experimentation**.[11,12] The first stage, **Concrete Experience**, begins with doing something whereby the individual, team or organisation are assigned a task which requires active/physical involvement. Kolb believes learning cannot take place simply by watching, or reading, but requires activities such as team games, practical exercises or discussion which may not work well for clinical reflection. This differs markedly from the Gibbs' Reflective Cycle where reflection can be based purely on observation.[10] Kolb's model would not support, for example, the situation involving a nursing student observing a wound dressing, for the first time, being undertaken by a more competent staff member. Observation is a safe and effective form of learning especially if the nurse who is attending the dressing explains the procedure, following the steps of

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the nursing process, and then directs the student nurse to specific learning materials.[8] The nurse who is learning can reflect on the process and apply critical thinking to what they have observed.[8] The second stage in the Kolb Cycle is **Reflective Observation.**[11,12] This means taking time-out from the activity, stepping back, and reviewing what has been experienced. Verbalising thoughts and discussing the given task is essential to the reflective process. The third stage, **Abstract Conceptualisation** is the process of making sense of what has happened and interpreting the events, as well as understanding the relationships.[11,12] The learner is required to make comparisons between what they have done and what they already know drawing upon theory from textbooks or any other knowledge that they have developed. The final stage, **Active Experimentation** is when the learner considers what they have learnt and how to put it into practice.[11,12] New understanding translates into what may happen next or what actions should be taken to refine or revise previous behaviour. This could apply to the student nurse who may ask to attend to a dressing under supervision, when due, or sooner if found necessary, following assessment.

Atkins and Murphy's Model of Reflection

The third model for discussion is Atkins and Murphy's Model of Reflection (1993)[13,14] which was specifically designed to be used in nursing practice. Given nurses face many varied, different and difficult situations, the model has been viewed as transferrable and has been adopted by other disciplines.[14] Atkins and Murphy state that people find it difficult to think about uncomfortable experiences but if they reflect on these events, they may find insight when faced with similar situations in the future.[13,14] There are five stages, the first requiring an **Awareness** of uncomfortable feelings and thoughts, an action or new experience. The second stage requires the nurse, or reflecting person, to **Describe the situation** including their thoughts and feelings alongside salient events and key features. This is followed by the third stage which is to **Analyse feelings and knowledge** relevant to the situation. This stage requires the reflecting person to identify their knowledge and challenge assumptions and in doing so, imagine and explore alternatives. The fourth stage is to **Evaluate the relevance of knowledge** which may, or may not, help to explain and solve problems which have occurred. The final and fifth stage is for the person to **Identify any learning**. The model provides detail and encourages the user to think deeply but may be more complex to use in practice and it is not as simple as other models,[15] such as Gibbs and Kolb.[10,11,12] Ball expands on this premiss stating the model presupposes a level of awareness, or unawareness, and presupposes the nurse has the time to analyse which may not be the case in a real-life clinical situation where a lack of time and resources do not allow a nurse to reflect in any depth.[16] Reflection may be something that is addressed much later when an immediate emergency or situation has been resolved.

Borton's Framework for Reflection

Borton's original Framework for Reflection **(What, So What and Now What)**[15] is very simple in its presentation (see the Framework below) but to allow for more in-depth reflective analysis it has been added to by Driscoll to include an array of trigger questions.[17,18] Driscoll also developed an experiential cycle.[17,18] The initial description of an event, the **"What"** uses trigger questions such as: What is the purpose of reflecting on, or returning to the situation, what happened, what did other people do who were involved in this, what did the reflecting person do or see, and what was their reaction to it? From a nursing perspective this would be invaluable in an emergency situation where honing future life-saving skills depends on the ability to reflect and consider what else might have been done. The second part is the **"So what"**. Driscoll asks the reflecting person to consider what they felt at the time of the event, whether their feelings now are any different from what they experienced at the time of the event, what the effects were of what they did, or did not do, to consider the positive aspects emerging from the event, reflect on their behaviour in practice by taking a more measured look at it and to consider the observers views to aid reflection of practice, actions and feelings.[17,18] The **"Now what"** has implications for clinical practice based on what has been described and analysed. Trigger questions include asking whether there would be a difference if the reflecting person chose to do nothing, what the main learning points are from reflecting on practice, what help might be needed to action the results and which aspects should be tackled first. Further trigger questions include where more information might be found to face a similar situation again and how practice could be modified if a comparable situation arose again.[15,17,18]

RECOMMENDATIONS

Nurses should be aware of the many sources or contexts which can be used for reflection in their everyday practice. They also need to be cognisant with the numerous reflective models that can be accessed to provide a basis for reflection. The four reflective models presented in this paper are examples of models that can assist personal and situational analysis so that the user may immerse themselves in a realistic, logical breakdown of how that specific situation has affected them, their work colleagues, their patients and their patient's family members. It is essential that nurses are enabled to process positive or negative experiences, explore their actions and evaluate their understanding of those experiences.

All experiences, whether positive or negative, should be embraced as they can provide meaningful learning opportunities. As promoted by the RCN, reflective practice can lead to revalidation of practice and an improvement in work behaviours.[2] Recommendations may include seeking, and reflecting, on any feedback from patients, and other

service users, as well as accepting feedback from colleagues to identify areas for improvement in practice. Staff must ensure they take part in professional development activities to address gaps in knowledge which can be achieved through undertaking Continuing Professional Development (CPD) which ultimately ensures safety for the patients.[2,3,19] Most importantly, nurses must accept accountability for their professional development, maintain a portfolio and ensure there is evidence of reflection to provide a plan of how care can be enhanced, improved or done differently, if appropriate.[2,3]

CONCLUSION

Reflecting on practice is considered to be an important aspect of nursing.[2,3,7] The value of reflective practice is widely acknowledged due to its significant role in nursing education, clinical and theoretical nursing assessment and revalidation requirements.[7,20] Advocates of reflective practice understand that a competent reflective practitioner repeatedly reflects on experiences and continually learns from those experiences to the benefit of future actions.[2,19,20] Reflective practice is now a fundamental component of both theoretical course work and clinical practice for nurses and positively impacts on both personal and professional development. An integral part of continual, evolving nursing, both clinically and through education, is the need to evaluate and improve care in an ever-changing healthcare environment. Reflective practice can only enhance the provision of quality in healthcare ensuring future nurses become competent practitioners who can provide, person-centred, safe care, that is aligned with best evidence and clinical standards. The four models discussed provide a platform for nurses to reflect as they all provide a structure which clearly directs a systematic process from describing the experience to eventually giving true significance to it.

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COMPARATIVE FRAMEWORK

Model	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Gibbs (1988) Reflective Cycle[9]	**Description** What happened?	**Feelings** What were you thinking and feeling?	**Evaluation** What was good and bad about the experience?	**Analysis** What sense can you make of the situation?	**Conclusion** What else could have been done?	**Action Plan** If it arose again what would you do?
Kolb (1984) Experiential Learning Cycle[10,11]	**Concrete learning** Doing/having an experience	**Reflective observation** Reviewing and reflecting on the experience	**Abstract conceptualisation** Concluding/ learning from the experience	**Active experimentation** Planning/trying out what you have experienced		
Atkins and Murphy Model of Reflection[12,13]	**Awareness** of uncomfortable thoughts and feelings, actions or new experiences	**Describe the situation** Include salient (most noticeable or important), feelings, thoughts, events or features	**Analyse feelings and knowledge** Identify and challenge assumptions. Imagine and explore alternatives.	**Evaluate** the relevance of knowledge. Does it help to explain/resolve the problem? How was your use of knowledge?	**Identify any learning** which has occurred?	
Borton's Model of Reflection[14,15]	**What?** What have I learnt? What did I hope to learn? What surprised me?	**So What?** So, what is the importance of this learning? So, what more do I need to know about this? So, what have I learnt about this? So, what was different to what I knew previously?	**Now What?** Now what can I do? Now what do I need to do? Now what might I do to improve or enhance the care I give to my patients? Now what might be the consequences of this action			

A PERSONAL CLINICAL EXAMPLE

using Gibbs Reflective Cycle as part of the reflective process required by the NMBA and RCN.[2,3,10]

Description	I was the Nursing Unit Manager (NUM) on a seven-bed busy Intensive Care Unit (ICU) and received a male patient from the Emergency Department (ED). The patient had been lying, unfound, on his front porch for 20 minutes, having cardiac arrested on a cold winter's day. The neighbour had walked out of his front door and saw the patient collapsed on the cold cement porch. The neighbour ran over and commenced resuscitation. He shouted until help came whilst also managing breaths and cardiac compressions, to the best of his ability. The paramedics arrived another 20 minutes later. The patient was transported to ED, 10 minutes away. The patient arrived on ICU two hours post cardiac arrest and then cardiac arrested again 30 minutes later. The ICU staff commenced resuscitation but by this time I had made the assumption that the patient was probably already brain-dead. I was undecided and conflicted as to how much help he should receive given there were six other critically ill patients on differing levels of life support and staffing was stretched to the limit. The doctor-in-charge asked everyone if we should continue and we all agreed we should keep trying but all of us had a failing belief it was the right thing to do. We were successful in resuscitating the patient however all signs of brain viability were not good at that point. However, after the first 24 hours, the patient started to improve. Much to everyone's disbelief the patient walked out of the hospital five days later with only mild short-term memory loss.
Feelings	Following the resuscitation in ICU I felt very distressed as the patient had been without oxygen for a long time prior to the hospital admission. I knew I had an ethical obligation to the patient but I now felt I had participated in a resuscitation that would likely leave the patient with brain damage and little quality of life.[21,22] At the time, I considered the whole situation to be a lost cause. I turned my attention to helping six other staff members, and their ventilated patients, seeing them as my priority rather than the patient just brought in. I felt very uncomfortable and under pressure to do the right thing for all patients in the ICU, but I was feeling too stretched mentally and physically, and well out of my comfort zone.
Evaluation	The experience was ultimately beneficial for the ICU staff, as well as personally, as it became apparent that nurses should not make assumptions about potential patient outcomes. Individuals will respond in differing ways. The experience was also a negative one because it made most of us, especially me as the NUM, feel I was not able to perform my job to the best of my ability and I had made assumptions that were not in the best interest of the patient.
Analysis	Despite our concerns the team continued to act as advocates for the patient and the successful resuscitation was ultimately in line with our required duty of care.[21,22] I, however, made negative assumptions, as did other staff members, but as NUM and Team Leader it was up to me to remain positive and focused. As NUM I was required to support all patients and staff on the floor. I could have embraced the role of advocate for that particular patient equally as well as I did for the other six patients.[21,22] Research suggests hypothermic patients can avoid brain damage.[23,24] Our Code of Ethics requires us to follow our ethical principles. I had a duty of care to uphold beneficence (to do good) and non-maleficence (to do no harm).[22,25]
Conclusion	The Code of Conduct requires nurses to be a patient advocate whatever the circumstances.[22] Our personal beliefs and judgements should not influence patient care. This was one of the most valuable experiences of my life. On reflection I should have asked for support from the Hospital Coordinator. I should have remained the patient's advocate at all times and not allowed assumptions to cloud my judgement.
Action Plan	In a similar situation, in the future, I would remain vigilant, focused and ensure I receive physical support to reduce fatigue but also gain support from management to keep team spirit intact. I will continue to read around the topic of cardiac arrest, and sudden death, and further develop aspects of my knowledge. I will ensure I pass my knowledge on regarding hypothermia and preserved brain function.[23,24] I have learned that assumptions are inappropriate, and I will remember a very old phrase that "assumptions make an ass out of u (you) and me".[26] I am aware that the quality of healthcare may be undermined if nurses do not understand the full scope of their responsibilities.[27]

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CASE STUDIES

Reflections of executive staff using the SaferCare Victoria COVID-19 clinical screening tool in a residential aged care service during the pandemic in Victoria, Australia

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ABSTRACT

Screening tools are useful for identifying disease during an early and pre-symptomatic stage. Older people dwelling in residential aged care services are particularly susceptible to COVID-19 and if infected have a high mortality rate. This article describes the lived experiences and reflections of some of the executive staff of an aged care service following the use of a COVID-19 clinical screening tool developed by SaferCare Victoria. The reflections were based on experiences of the contributors to this article during the second wave of the pandemic during 2020 in Victoria, Australia.

Open learning sessions were held via teleconference for staff to be trained in use of the tool. The tool was used in a variety of different circumstances for monitoring all residents. At times residents would decline to have certain observations taken and clinical staff were initially concerned about the potential extra work.

The regular use of the tool to track a residents' clinical observations over a 14-day period allowed opportunities to identify early subtle changes from the individual's baseline. There was a perceived improvement in detection of residents with dehydration, delirium, urinary tract infections and those approaching the need for end-of-life care.

Using the tool appears to assist in shifting the aged care service to a more systematic approach to responding to the pandemic. This appears to benefit the organisation, facility, staff, residents and their families however, more empirical research is required to test and validate these perceptions.

Keywords: Aged care, COVID-19, nursing homes, screening

CASE STUDIES

INTRODUCTION

Screening tools are useful for identifying disease during an early and pre-symptomatic stage.[1] This is especially important with infectious outbreaks such as COVID-19. Recognition and management of the person with early stages of COVID-19 may result in easier and less expensive treatment and reduces the risk of transmission of COVID-19 infection to others.[2]

Older people in residential aged care are particularly susceptible to COVID-19 and if infected have a high mortality rate.[3] It is not practical to be using invasive, laboratory viral screening tests for the whole aged care sector on a daily basis. In contrast the use of a clinical screening tool for COVID-19 has the benefits of being non-invasive, low economic cost and simpler to apply. The SaferCare Victoria (SCV) clinical screening tool was designed and developed to identify older people in residential aged care who may have COVID-19 and to guide treatment including whether or not to conduct laboratory tests.[4,5]

OBJECTIVES

This article describes our experiences as a self-selected group of executive staff employed at an approved aged care provider (SP, ZW, SO) using a screening tool in Victoria Australia during the second wave of the COVID-19 pandemic (Jul-Oct 2020). The provider operates 26 residential aged care facilities which accommodate approximately 2,500 residents in Victoria. The article is a reflection based on self-reported experiences of this executive group. The discussion was facilitated by the senior author (who is an independent academic with no relationship with the staff or provider) and does not use any other information about other persons, as such, institutional ethics committee approval was not required. There are many approaches to reflection and reflective practice.[6] In essence reflection requires examining an event that has occurred, analyses of that event from a range of viewpoints and determining how the new insights apply to improve practice.

PREPARING FOR A COVID-19 OUTBREAK

In early 2020, the provider, had commenced reviewing policies, procedures, clinical protocols to align with guidance material available from Communicable Diseases Network Australia (CDNA),[7] the Australian Health Protection Principal Committee (AHPPC), Commonwealth and State Health Departments. Also established were Daily Crisis Management Team Meetings (CMT) between clinical governance and operations teams. If a COVID outbreak was suspected Clinical Meetings were scheduled with the Clinical Care Managers (CCMs), Clinical Quality Consultants (CQCs) and the General Manager (GM).

It became clear when COVID-19 cases were increasing during June and August 2020 our organisation needed a clear clinical based agenda to define our initial approach to protecting residents, staff and families from COVID-19 outbreaks. Our impression was that the clinical teams at the individual residential aged care facilities were unprepared. Our experiences at the team meetings were that care staff struggled to identify and present details of the residents' clinical status in a comprehensive and systematic way.

We adopted the SCV Clinical Screening tool because it was designed using an evidence-based framework and could demonstrate when residents were displaying clinical deterioration that may indicate COVID-19.[2] The format of the screening tool in the form of a single sheet per resident, however, was not useful as it created large volumes of paper which were difficult to review systematically and did not allow for ready assessment of individual resident trends nor observation of patterns within areas of the home. Prior to wider implementation we modified the format of the tool to allow every resident to be tracked and for a rapid analysis of information. This was achieved by using a spreadsheet over a 14-day period. We also added the clinical observations of blood pressure and oxygen saturation which were not part of the SCV Clinical Screening tool.

The clinical managers in each section or unit were tasked with populating the spreadsheet each shift. In order to streamline the process, the form had as many fields as possible pre-populated and Registered Nurses (RNs) were required to complete clinical observations each shift.

USE OF THE SCV CLINICAL SCREENING TOOL

We used the tool in a variety of different circumstances including monitoring of all residents located in a nursing home where:

- a confirmed COVID-19 outbreak, and response has been initiated (community transmission has occurred)
- a precautionary outbreak response has been initiated
- the community was defined as a hotspot or Local Government Area (LGA) under Level 4 restrictions

The tool was also used for residents who were:

- a new admission
- returning to the home from an outing
- returning to the home after hospitalisation with COVID-19 and were deemed no longer infectious (residents in COVID-19 Recovery Wards)

Residents were screened at least twice a day and up to four times a day if they were flagged as being at risk.

HOW WE TRAINED STAFF TO USE THE SCV CLINICAL SCREENING TOOL

Open learning sessions were held via teleconference for RNs, Clinical Care Managers (CCMs) and Clinical Quality Consultants. We repeated these sessions as well as providing examples of a completed tool for staff to refer to. The excel spreadsheet we developed also had instruction prompts on how to complete the tool. Verbal instructions on how to use the clinical screening tool were discussed with the CCMs each morning at the daily clinical meetings including the need for extra monitoring, referral and escalation to Medical Practitioners or other specialists should this be deemed necessary.

HOW WE MANAGED STAFF AND RESIDENT CONCERNS

At times residents would refuse to have certain observations taken, however most of the time residents were understanding of the need and complied with staff requests.

Clinical staff were initially concerned about the potential extra work using the screening tool would entail. However, this concern was readily overcome as staff numbers were often increased and cohorted which enabled them to assess residents and have their data ready for consideration at daily clinical meetings. These clinical meetings were a chance for staff and management to discuss any residents who may be deteriorating and highlight those who required referral or escalation of their care. Clinical teams became appreciative of the daily clinical meetings often commenting that it assisted with initiating hospitalisation and referral as the recommendations were cited to have been made by the Clinical Review Team for individual residents.

FEEDBACK FROM OUR STAFF WHEN USING THE TOOL

Staff provided feedback that a change in temperature was often the first indicator. This was typically a low grade increase overnight from the residents' baseline. Staff flagged any residents with a temperature of >37˚C for closer clinical monitoring. Those who later tested positive for COVID-19 usually had a temperature rise to 37.4˚C and then perhaps to above 38 ˚C. A higher pulse rate was often observed, usually about 20-30 beats per minute above the resident's baseline while other residents had a drop in their oxygen saturation levels.

The symptoms of COVID-19 we observed more frequently in our residents who later tested positive to COVID-19 were lethargy, a low-grade increase in temperature, an increased heart rate and a drop in oxygen saturation.

Far less common was a change in a resident's sense of taste or loss of smell. Interestingly, falls were mostly seen during the post COVID-19 recovery period due to physical deconditioning.

GREATEST VALUE OF USING THE TOOL

The regular use of the tool to track a residents' clinical observations over a 14-day period allowed opportunities to identify early subtle changes from the individual's baseline. This led to early detection of changes that may be due to COVID-19, facilitated early testing and provided information to inform decisions about need for hospitalisation. The documentation of serial clinical observations and changes in presentation also provided objective evidence that convinced ambulance paramedics and acute hospital staff of the need to transfer a resident to hospital for acute management of their condition.

An additional benefit of the screening tool was the early detection of clinical deterioration in residents from conditions other than COVID-19. We also believe this improved our detection of dehydration, delirium, urinary tract infections and those approaching the need for end-of-life care.

THE OVERALL PERCEIVED BENEFITS OF USING THE SCREENING TOOL

For the organisation:

- confirmation of an evidence-based process and a consistently reliable clinical process.

For the facility:

- assisted with decision making with cohorting and to predict infection control risks in transmission e.g., possibility of a positive cohort staff member etc.
- helped prioritise care and escalation of unwell residents.

For staff:

- perception that the exercise supported those RNs involved in the daily review process and their recognition of clinical deterioration improved.

For the resident:

- potentially a quicker hospitalisation and timely treatment.

For families of residents:

- perception that families felt reassured that there was a planned response to clinical monitoring and management. Families were appreciative their loved ones were being closely monitored and that appropriate treatment options were sought.

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LIMITATIONS OF REFLECTION

The observations reported in this article are the perceptions of the contributors. There is the potential for recall and social desirability bias which may lead to a more favourable evaluation of the screening tool. Objective, prospective empirical data at the individual staff, resident and family level is required to verify these perceptions.

CONCLUSION

By using the SCV screening tool we believe our approach to the pandemic was more systematic and our overall impression is that the tool provided a structure that assisted our staff to identify residents at risk and initiated earlier actions.

DECLARATIONS

All authors meet the criteria for authorship stated in the Uniform Requirements for Manuscripts Submitted to Biomedical Journals and are in full agreement regarding its content. This material has not been previously published and is not under consideration for any other publication. If accepted the manuscript will not be published elsewhere. One author is affiliated and employed by the School of Nursing, Monash University, which is also a funding source. The authors have no other potential financial or personal interests that may constitute a source of bias. The funding organisation did not contribute to, nor influence the content of the manuscript.

DISCLAIMERS

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any agency or departments of the Australian Federal Government, the State Government of Victoria, Bupa, Monash University, the Victorian Institute of Forensic Medicine or the Coroners Court of Victoria.

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