Building Resilience Among Rural and Remote Nurses in Queensland, Australia.

Abstract

Aim

This study evaluated a workplace resilience intervention involving registered nurses working in rural and remote settings in Queensland, Australia.

Background

The nature of nursing work provides a range of challenges to the psychological well-being of nurses. To address these challenges, research in the area of building resilience to enhance psychological well-being among nurses is growing rapidly, although few studies have investigated these phenomena in rural and remote settings.

Design/Methods

The study implemented and evaluated a Mindfulness Self-Care and Resiliency (MSCR) program delivered to registered nurses (*N* = 32) working in rural or remote locations, to enhance workplace resilience. Registered nurses who attended the program were invited to evaluate the program via a semi-structured telephone interview.

Results/Findings

Qualitative analysis showed that most nurses found the MSCR program valuable and relevant in terms of learning new knowledge and skills to help build resilience to stress in the workplace.

Conclusion

The MSCR intervention was received positively by the registered nurses who participated and may have broader application across the rural healthcare sector.

Key Words:

Workload, rural, remote, nurses, resilience, mindfulness

Problem

There is a need for more research on the psychological well-being of nurses in rural and remote environments and the promotion of strategies and interventions to combat stress and burnout among the nursing workforce in these regions. The present study evaluated the benefits of building resilience and psychological well-being through the practice of mindfulness.

1. Introduction

The nature of nursing work can provide challenges to psychological well-being. Both nursing students and the employed nursing workforce have reported compassion fatigue, anxiety and depression, all of which contribute to burnout, which may then result in reduction of employment hours or attrition from the profession (Conrad & Kellar-Guenther, 2006; Craig & Sprang, 2009; Drury, Craigie, Francis, Aoun, & Hegney, 2013, Hegney et al., 2014; Stamm, 2010). Psychological conditions such as anxiety, depression, burnout, post-traumatic stress disorder (PTSD) and secondary traumatic stress (STS) not only limit the care nurses can provide, but also pose a threat to patient safety (Mealer et al., 2012). Previous studies by Rees et al. (2015), Hegney et al. (2015) and Craigie et al. (2016) have focused on compassion satisfaction, compassion fatigue, anxiety and stress of nurses employed in metropolitan hospital settings, but there have been few studies investigating these phenomena in rural and remote settings.

1.2 Resilience and resilience interventions

Research on the resilience of healthcare professionals, including nurses, has expanded in recent years. Several studies have explored the link between resilience and psychological symptoms among nurses (Cameron, 2010, Gillespie, Chaboyer, & Wallis, 2009; Jackson et al., 2011; Mealer, et al., 2012). Also, a number of case studies have been published (e.g., Cope et al., 2016; Smith & Yang, 2016) as well as reviews of the effectiveness of interventions designed to build resilience (Delgado, Upton, Ranse, Furness, & Foster 2017; Turner & McCarthy, 2016).

A range of resilience interventions have been trialled in healthcare settings (Happell at al., 2013; McDermid, Peters, Daly, & Jackson, 2016; Stephens & Smith, 2017). For example, the RN Personal Resilience Enhancement Plan was implemented to assist new nurses to face the challenges encountered during orientation and moving successfully into the nursing profession (Stephens & Smith, 2017). Delgado et al. (2017) noted that several resilience interventions have been designed to strengthen nurses' individual resources and reduce the negative impacts of workplace stress.

1.3 Mindfulness as a resilience intervention

One particular intervention strategy that has shown promise in building resilience in nurses is mindfulness training. Mindfulness has been identified as an important factor in promoting resilience to stress and burnout among healthcare professionals (Boellinghaus, Jones, & Hutton, 2014; Irving, Dobkin, & Park, 2009), and mindfulness training represents an important foundation in training compassion for self and others (Beddoe & Murphy, 2004; Germer, 2009). It is proposed that mindfulness promotes psychological well-being by supporting cognitive flexibility, reducing emotional reactivity, and enhancing self-compassion and acceptance (Baer, 2010; Keng, Smoski, Robins, Ekblad, & Brantley, 2012). Mindfulness among healthcare practitioners is also linked to more patient-centred communication and higher patient satisfaction (Beach et al., 2013).

Mindfulness as an intervention to enhance nurse well-being is not a new concept. Mackenzie, Poulin, and Seidman-Carlson (2006) suggested that mindfulness-based programs were a promising method for helping nurses reduce their stress. Various studies have since supported this proposition (Craigie et al., 2016; Dean et al., 2017; dos Santos et al., 2016; Foureur, Besley, Burton, Yu, & Crisp, 2013; Lim et al., 2013; Slatyer et al., 2017).

2. Background

Rural Queensland is a vast geographical area facing significant challenges that include stagnant population growth, population ageing, geographic dispersion, poor health status, the burden of chronic disease, and environmental impacts and drought. To address these challenges, communities and key stakeholders (including Primary Health Networks, Aboriginal Medical Services, local governments and non-government organisations, and universities) plan, deliver, evaluate and improve health services within the region. To contribute to system and process improvement, a regional Queensland university conducted a program of research to better understand psychological well-being and levels of resilience, as well as build resilience among employed nurses throughout the rural Queensland workforce. This study forms part of that research program.

3. Methodology and Methods

3.1 Aim

This study evaluated a workplace resilience intervention involving registered nurses working in rural and remote settings in Queensland, Australia.

3.2 The Intervention

The Mindfulness Self-Care and Resiliency (MSCR) intervention is a group-based, face-to-face psychosocial intervention using mindfulness as a foundational skill for applying resiliency responses that promote self-regulation in the face of workplace stressors. In addition, MSCR provides education about the relationship between mindfulness and self-compassion, and how they contribute to self-care. The intervention was first evaluated as an open trial in a sample of nurses working at an acute care tertiary hospital in Perth, Western Australia (Craigie et al., 2016)

To accommodate for time, distance and cost constraints, the MSCR intervention was modified from its original format and condensed for the current project, with the program owner's consent, to allow the program to be implemented on-site over four days to two groups of registered nurses (20 commenced on day 1, 12 commenced on day 2). Each group received a 1-day workshop followed by a 3-hour mindfulness practice seminar two days later (20 on day 3, 12 on day 4). All participants were requested to practice mindfulness daily following the workshop and seminar. Participants were contacted by phone by a member of the research team after two weeks to check on progress.

Each participant was provided with the MSCR program client manual that included educational materials. To facilitate home practice, participants were also provided with their own copy of the Williams and Penman (2011) book, *Mindfulness: a Practical Guide to Finding Peace in a Frantic World*. Participants were encouraged to practice daily. The 1-day workshop and 3-hour mindfulness practice seminars were facilitated by the developer of the program.

3.3 Design

Implementation of the MSCR and daily mindfulness practice was followed up with telephone interviews, 1- 3 months after program completion. Participants were asked to reflect on their experiences from the MSCR, to share their thoughts and opinions, and whether they had implemented any strategies or exercises learned during the workshop. Additionally, participants were asked about the strengths and weaknesses of the program and suggestions for improvements.

3.4 Participants

Participants provided demographic information, including gender, age, and length of nursing career. A total of 32 registered nurses (male = 2, female = 30; age range = 22–67 years; nursing career = 9 months–47 years) completed the 2-day MSCR program in a rural town (population 7,000) in southwest Queensland and the subsequent daily mindfulness practice. Of these, 21 registered nurses

(65%; male = 2, female =19; age range = 22–54 years; nursing career = 9 months–34 years) also participated in the interview phase of the study.

3.5 Ethics

Ethics approval was received from the relevant hospital and health service and the university's human research ethics committees (HREC/16/QTDD/23& H16REA007).

3.6 Data Collection

All telephone interviews were audio recorded and transcribed by a professional transcription agency. To protect the confidentiality of participants, names were removed from the interview transcriptions prior to analysis. An online random name generator (www.listofrandomnames.com) was used to assign a gender-appropriate pseudonym to participants. One interview was removed from the analysis because the participant had reflected upon experiences of a separate training event to the MSCR. A total of 20 interview transcripts were included in the final analysis (male = 2, female =18).

3.7 Data Analysis

Thematic analysis of qualitative data was used to derive insights into the major themes relating to the perceived relevance and effectiveness of the program. An inductive approach to thematic analysis was guided by the techniques of Braun and Clarke (2006). Initially all interview transcripts were read through thoroughly. Following this initial reading, a second re-read was conducted with notes made in the margin of each transcript. Upon a third reading these notes were developed into codes. Once coding was complete, data were compared across all transcripts, sorting codes into potential themes. A thematic map was developed to conceptualise patterns and links between potential themes in order to enable the identification of master themes and sub-themes. For collated data to be considered prevalent enough to generate a theme, thematic content must have been present in at least one third of all participant transcripts.

4. Results

Four overarching themes were identified representing shared thoughts and experiences. Two of the superordinate themes contained sub-themes. A summary of the key themes is presented in Table 1. The results that follow present these key themes with exemplar supporting evidence. Individual quotations from participant nurses that best represent the theme have been selected by the researchers and are reproduced below.

Table 1: Themes identified in the Content Analysis

Superordinate theme	Sub-theme
Awareness of self, situation and others	• Recognition of self-care • Intentionality and Reactivity
Utility of MSCR	• Prevention • At risk targeting
Limitations of MSCR Training	
Improvements to MSCR Training within the health service	

4.1 Awareness of self, situation and others

This theme represents staff experiences both during and following the MSCR workshop. Although a majority of staff reported some degree of improved awareness, individual experiences and varied interpretations of what this awareness meant, and how it could be beneficial are presented in the

subthemes that follow.

4.1.1 Self Care

One key outcome of the MSCR workshop was a heightened awareness and realisation that the self is both vulnerable and requires care:

> *"It was probably almost a little bit confronting that I probably thought I was coping but that made me realise that I hadn't been really and I was, I did suffer that fatigue, that compassion fatigue at home as well as at work and I was actually experiencing that."* (Stephanie)

For Stephanie, existing beliefs that she was adequately coping with work demands were challenged by information presented in the MSCR workshop. It is unsurprising, considering the stressful nature of the nursing environment, that Stephanie concludes that workplace stressors are affecting her home life as well.

Similar reports of work impacting on home life were shared most frequently. Participants acknowledged that they experienced difficulty 'shutting everything out' or 'switching off' their brains. Following the MSCR workshop mindfulness exercises were embraced as new strategies for self-care outside of the work environment:

> *"For me getting really tired and kind of getting stressed it's quite good to use those exercises that he taught us to sort of be able to slow your mind down so that you actually get some sleep before you have to go back to work and deal with whatever you have to do."* (Vicky)

Difficulties in switching off from work combined with the demands that shift work placed on the body meant that several staff experienced difficulty falling asleep or remaining asleep for significant periods. Specific exercises such as the body-scan or mindful-breathing were reported as being used by a number of participants to assist with improving sleep. Since introducing the mindfulness exercises several reported that these enabled them to '*wind down*' and stay asleep for longer.

During the two-day MSCR workshop the opportunity to share work stories with colleagues reduced feelings of isolation and led to moments of awareness that staff experiences were not necessarily unique, or as Lisa noted, *'I wasn't the only one going through that'*. This growing sense of camaraderie along with the shared experience of the workshop appears to have produced a sense of '*togetherness*' giving staff permission to explicitly consider the care of others:

> *"If you see other participants around the place and they're starting to look a little bit hurried or something you go up and you say now have you done your mindfulness exercises? They go, thanks… you've reminded me now, I'll go and take 5 minutes for myself."* (Stephanie)

The benefits of this camaraderie and shared understanding is also evident in Deidre's comments, who expressed that regardless of whether staff actively adopt any of the mindfulness exercises, simply being exposed to the workshop was beneficial in creating a conversation about self-care:

> *"Even doing nothing else we've started talking about mindfulness more regularly amongst each other as something that is a way of taking care of ourselves."* (Deidre)

4.1.2 Intentionality and Reactivity

In reflecting upon their workplace environment, there was mention of team members who were '*not always very nice to each other*' and could be quite tactless in their interactions. Participants suggested that newly acquired knowledge and skills gained from the MSCR workshop could provide them with appropriate strategies to consider more tactful approaches. Interestingly, Doreen believed that without '*having that insight into your own behaviour*' it would be very difficult for communication

problems to be resolved and for these health centres to create a more nurturing environment.

Half of those interviewed explicitly reported an increased awareness of their own reactions in the workplace. In some cases, this allowed staff to reframe their approach to what was previously viewed as a stressful and negative situation

> *"So you need this done and that has to be done and it's got to be done yesterday and there's lots of demands … I can run around like a mad chook with my head cut off and try and satisfy everybody's needs and become more frustrated and more unhappy, or I can take a few deep breaths, take a couple of minutes, do a little mindfulness exercise and then think okay what' the biggest priority."* (Stephanie)

Being aware of reactions and the impact of these behaviours on oneself and others allowed staff to respond with less emotionality and more intentionality, or as Doreen described her new-found awareness was "*stopping that cycle of … default reactions".* This suggests that the MSCR workshop assisted staff to identify reactionary behaviours and provided insight into how these behaviours negatively affect others in the workplace.

Although some staff spoke of consciously introducing exercises, such as deep breathing, to assist with reactionary behaviours, for others the impact of the MSCR workshop was experienced on a subconscious level:

> *"I mightn't practice it but I think maybe I'm a little bit more aware of my reactions… it certainly made me stop and think and be a little more aware of more of my reactions."* (Jeanine)

Terms such as *'awareness*' and '*mindfulness*' were used interchangeably as participants spoke of the importance of considering others and being able to adjust communications in an empathic way:

> *"I think it's really important for people to learn those skills and strategies and little exercises to help them on a daily basis. Especially when you're working in a team because sometimes you do have to be more mindful of other people's thoughts and feelings because it can come down, it can crash their energy really quickly when people aren't."* (Vicky)

4.2 Utility of MSCR

Eighteen of the 20 (90%) participants spoke of gaining personal insight, skills, or knowledge from the MSCR workshop. Interestingly, all participants, including the two who did not report any personal value in the training, were able to identify areas within the nursing environment where they believed the MSCR could be most beneficial. The following subthemes explore two such areas identified by participants.

4.2.1 Prevention

When asked for their thoughts regarding the utility of MSCR, many participants replied that they 'wished' they had been exposed to this content earlier. Brenda and Stephanie reflected on recent critical events that had occurred to each of them in the workplace, contemplating the potential for different outcomes had they been exposed to the training prior to the occurrence of these events. For example, Brenda reflected:

> "*I wish I'd done it 6 months earlier because I might not have got in the hole that I got into at the beginning of this year."* (Brenda)

Several staff believed that training of this nature should form part of university programs, used as a

preventative tool by preparing future professionals with *appropriate coping strategies:*

> *"To me it needs to be engrained – whether that- like in universities – gets it before they start nursing for 20 years and they are already bitter and twisted like the rest of us."* (Jeanine)

Jeanine's final comments suggest that perhaps some staff may have felt that it was too late for them to learn new strategies; this was reflected in comments from Derrick who stated that staff with over "*13 or 15 years"* experience had *"missed the boat".* Importantly though, these staff did not necessarily feel more vulnerable to risks of burnout or fatigue, but believed that through exposure and experience they had already developed their own coping strategies and were therefore less likely to adopt new strategies or adapt to these new strategies.

4.2.2 'At Risk' Targeting

Several staff members were able to identify specific high stress roles or environments within their workplaces, suggesting these as potential targets for future MSCR training. Midwifery, for example, was identified by Bernadette as a particularly difficult environment that could benefit from the MSCR program: *"It can really help to prevent you getting burnout I believe"* (Bernadette). Midwives, emergency department personnel, shift workers and frontline managers, line managers and administrative nursing staff were all identified as being exposed to high stress situations and therefore viewed as ideal recipients for MSCR training.

4.3 Limitations and Improvements of MSCR Training

Despite a general belief that the MSCR training was worthwhile and beneficial for most staff who attended, almost half of the participants reported that since the workshops they had been too busy, had forgotten, or that MSCR had simply '*slipped off the radar*', and so they had stopped using some of the strategies discussed in the workshop. As Amanda reported:

> *"You have to remind yourself to do it because you just come back and you get busy and everything just keeps on happening so it is really probably quite hard to keep remembering the tactics they gave you".* (Amanda)

This highlights the vulnerability of any training program, in that once staff leave the workshop environment and return to the workplace it can be easy for them to fall *"back into some of your old traps".* (Carly). For Carly, however this was, in some way, combatted by timely reminders from colleagues who had also attended the training: "*every now and then we'll… say to each other three sighs, three sighs… I think you do still think about it."* (Carly)

Despite the positive outcomes of the MSCR training, a number of participants reported that they had initially approached the workshop with a '*cynical*' attitude, several believing that mindfulness was '*new-ageist' or 'hippy'*. However, following the workshop only one participant reported no change in her views toward the training. Others expressed surprise at the practical nature and simplicity of the content.

Over one third of all participants suggested that MSCR should form part of a more regular or annual cycle of professional development, as Doreen pointed out:

> "*It needs to be like a regular thing that is built into people's development, annual, ongoing, it's almost like a, I don't know a coaching session or you know people can access."* (Doreen)

Some participants suggested a '*refresher'* in MSCR would be helpful in keeping them 'on track' with what they perceived to be a lot of new information that was presented in the two-day workshop. Participants further suggested that utilising technology to deliver the workshop, or refresher versions,

directly into the health centres would save time and travel costs, potentially allowing more staff to access the material. Finally, participants also commented that simple summaries or dot points of key reminders might be valuable in helping staff remember and adopt change. Several participants expressed the belief that something similar to the MSCR workshop should be made available on a regular basis within the health service.

5. Discussion

Qualitative analysis of interview transcripts demonstrated that most participants found the MSCR program valuable and relevant in terms of learning new knowledge and developing novel skills to help build resilience to stress in the workplace. This finding is consistent with previous mindfulness intervention studies (Dean et al., 2017; dos Santos et al., 2016; Foureur et al., 2013: Slatyer et al., 2017).

Some participants suggested that a 'refresher' course on the MSCR content would be helpful in keeping them 'on track' with what they perceived to be a lot of new information presented during the two-day workshop. It was further suggested that utilising technology to deliver refresher content directly into the health centres would save time and money, potentially allowing more staff to be exposed to the material. Videoconferencing in rural health centres is common practice, for uses such as telehealth. Telehealth was originally intended to improve access to healthcare for patients, but now provides access to education and support for health professionals, which reduces travel and other inconveniences (Ali, Carlton & Ali, 2015).

Given that some participants had travelled up to 500 kms to attend the workshop and the presenter had travelled more than 4,000 kms from Western Australia to deliver it, the logistical challenge and cost of providing this face-to-face training was considerable. The geographical spread of the participants' workplaces and residences meant that it was impossible for some nursing staff who would have wished to participate, to attend the MCSR workshops. The distances involved also necessitated that follow-up interviews took the form of phone calls with the participants instead of face-to-face sessions. More recently, the MSCR workshop has been delivered by the program owner or a trained trainer under license, as one 6-hour face-to-face session followed weekly by three 1.5 hour follows ups, face-to-face or via video conference. A longer term objective might be to develop and validate the effectiveness of a program delivered completely online, although feedback suggests that the interaction of the face-to-face sessions (including video-conference) is highly valued and sets the program apart from the large number of online programs currently available (Hegney, 2019, personal communication).

In terms of how the MSCR might be improved, results indicated that some participants would have liked summaries, reminders, or refresher opportunities after the initial workshop training to help reinforce and maintain the skills learnt. It is possible that had the full program with the three follow-up sessions been delivered, that these needs would have been met. Future research might wish to explore how the delivery format could be enhanced to alleviate some of the constraints often experienced by rural nurses. Also noted in the results were the difficulties participants found in simply trying to remember to carry out or find time to do the mindfulness practices. This concurs with the findings of previous mindfulness intervention studies (e.g., Foureur et al., 2013).

Participants suggested a range of minor improvements to the delivery of the MSCR program within their particular environment, with consideration given to potential costs balanced with the desire for greater exposure to mindfulness training within their health service centres. Although some minor limitations of the program were mentioned by participants, clear benefits have been identified, with several participants expressing the belief that something similar to the MSCR workshop should be

made available to nursing staff on a regular basis. This has now been achieved, through the licensing of the program to local trainers.

Finally, although face-to-face follow-up sessions may have strengthened the design, delivery of the intervention provided a very positive demonstration of the commitment of the health service to the well-being of its nursing staff. Rethinking how mindfulness programs like the MSCR can be implemented efficiently in rural and remote workplace settings in terms of time and practicality, is recommended.

6. Conclusion

The MSCR intervention was received positively by the registered nurses who participated and may have broader application across the rural healthcare sector.

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