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The COVID-19 pandemic – A focus on nurse managers' mental health, coping behaviours and organisational commitment



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ABSTRACT

Background: The emergence of COVID-19 has substantially impacted frontline health care workers, including nurse managers. To date, no studies have been conducted to examine the impact COVID-19 has had on Nurse Managers' mental health, coping strategies and organisational commitment.

Aim: To investigate the mental health, coping behaviours, and organisational commitment among Nurse Managers during the COVID-19 pandemic.

Methods: Cross-sectional study involving 59 Nursing Managers from one Local Health District in Sydney Australia during the first wave of the COVID-19 pandemic. Data were collected relating to demographics, anxiety, coping strategies and organisational commitment.

Results: Overall, approximately three quarters of the Nurse Managers had high anxiety scores. Managers who had worked longer as a nurse had higher scores for adaptive coping strategies and 41% of Nurse Managers considered leaving their jobs.

Conclusions: Strategies to minimise anxiety and enable coping as part of organisational disaster, emergency or crisis planning for Nurse Managers may result in decreased anxiety and stress levels, increased use of adaptive coping strategies and lower intent to leave the organisation and the nursing profession.

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Summary of relevance

Problem

The COVID-19 pandemic has added additional demands on the workload of mid-level Nurse Managers. No studies have been conducted to examine the impact COVID-19 has had on Nurse Managers' mental health, coping strategies and organisational commitment.

What is already known

Nurse Managers had to manage critical situations and cope with rapidly changing guidelines during the COVID-19 pandemic.

What this paper adds

Nurse Managers have anxiety related to the COVID-19 pandemic that can impact their ability to cope and ultimately their commitment to the organisation. Planning and provision of training for Nurse Managers is vital to reduce anxiety levels and address the use of maladaptive coping strategies, for not only the current pandemic but for all disasters and emergency situations.

Introduction

Nursing is a physically and emotionally demanding profession. The COVID-19 pandemic has added additional demands to the already stressful role and environment that nurses work in every day. When COVID-19 was declared a pandemic, significant aspects of care, planning for care, and associated policies demanded urgent and immediate action. These impacted nurses at all levels and roles in different ways. The impact on mid-level Nurse Managers is an important consideration not previously studied. "Mid-level" Nurse Manager in this paper refers to Nurse Unit Managers and Nurse Managers. Nurse Unit Managers are ward based, supervising and managing a clinical nursing team. Reporting and financial tasks may be additional duties undertaken by a Nurse Unit Manager. Nurse Managers are those who manage human and fiscal resources, maintain a safe environment for all staff, patients and other stake holders, ensure patient and staff satisfaction and ensure that high quality care is provided in line with the hospital's strategic goals.

The impact of COVID-19 on Nurse Managers included responsibility to their staff/team as well as to senior management and executive. They had to manage critical situations, cope with rapidly changing guidelines and were exposed to high levels of organisational stress (Moore 2020). Nurse Managers were expected to prepare units, teams, and resources instantly (Wu et al. 2020). Deployment of staff to high acuity areas occurred, impacting unit staffing levels that Nurse Managers had to accommodate. Other major challenges for Nurse Managers were ensuring adequate resources were available for staff to feel safe, ensuring staff wellbeing, and providing regular and clear communication between clinical nurses and senior management (Gonzalez-Gil et al. 2020). In addition, Nurse Managers had to attend numerous meetings to obtain up-to-date information for the management of their units during the pandemic. The burden on Nurse Managers may have been heightened due to the perception of responsibility for their teams functioning and health (Mroz 2015). This, along with family pressures due to COVID 19 such as home schooling, could have had an even greater psychological impact on Nurse Managers. All these demands and factors could contribute to Nurse Managers having a perceived lack of control over their workload at the height of the COVID-19 pandemic, and thereby being at a higher risk of psychological difficulties (Martinez-Zaragoza et al., 2020).

Literature review

It is reported that nursing faces higher levels of stress than other professions in "normal" times due to a myriad of reasons and stressors including staff shortages and unpredictable staffing, lack of role clarity, increasing complexity of roles, workload, time pressures, perceived uncertainty at meeting job requirements, patients' death and suffering, exposure to infection and multiple other factors (Fernandes & Nirmala 2017; Mroz 2015). When compounded with crises, such as COVID-19, there is associated stress due to lack of or misinformation and so greater disposition toward anxiety, burnout, fear for self (Hu et al., 2020; Labrague & de los Santos, 2020b; Li et al., 2020; Pouralizadeh et al., 2020; Huang, Lei, Xu, Liu, & Yu, 2020), fear for family (Hu et al., 2020; Labrague & de los Santos, 2020b; Li et al., 2020), turnover (Labrague & de los Santos, 2020b), low morale (Nyashanu, Pfende, & Ekpenyong, 2020), and stress due to lack of resources, particularly personal protective equipment (PPE) (Pouralizadeh et al., 2020). These factors have been reported widely in literature for "frontline" nurses however, there is paucity of studies that focuses on the wellbeing of mid-level Nurse Managers during the COVID-19 pandemic.

In an address to nurses in the United Kingdom when the pandemic was declared, the Chief Nursing Officer for England stated that nurses needed to "set aside [our] fears to show our outstanding leadership skills" (NHS England, 2020). This was a challenge for mid-level Nurse Managers, who experienced high levels of stress and anxiety due to an imbalance between effort and reward received (Martinez-Zaragoza et al., 2020). The psychological and social factors heightened during COVID-19 (Zheng et al., 2020) that impacted mid-level Nurse Managers can lead to a number of mental and physical disorders (Alkhawaldeh et al., 2020). In addition, a disparity between effort and reward leads to sick leave, an intention to quit, turnover, work-home struggles, emotional fatigue, depression, anxiety and burnout (Martinez-Zaragoza et al., 2020; Alkhawaldeh et al., 2020; Labrague & de los Santos, 2020b). This impact on Nurse Managers needs attention, particularly since WHO (2020) have identified that COVID-19 is likely to have ongoing effects on mental health beyond the short term.

This paper will explore the impact of COVID-19 on mid-level Nurse Manager's mental health, coping strategies and behaviours, and intention to stay in their role during the peak of the pandemic (May and June 2020) in a Local Health District (LHD) in Sydney Australia.

Methods

The study is a sub-study from a larger study titled "COVID-19 pandemic: Assessing the wellbeing of SESLHD Nursing and Midwifery staff." The aim of this study was to investigate the mental health, coping behaviours, and organisational commitment among Nurse Managers during the COVID-19 pandemic.

Design

This study was conducted using a cross-sectional survey of nurses in one LHD in Sydney Australia during the first wave of COVID-19 pandemic. This study is reported according to the STROBE guidelines for cross-sectional studies.

Participants and recruitment

Nurse Unit Managers and Nurse Managers were eligible to participate in the study if they were employed within the LHD. An electronic link to the survey was sent to the Executive Director of Nursing and Midwifery of the Local Health District (LHD) who then circulated the link to each Director of Nursing and Midwifery of

the eight hospitals within the LHD. Each Director of Nursing and Midwifery then disseminated the link to their Nurse Unit Managers and Nurse Managers. The survey was hosted using the SurveyMonkey (SurveyMonkey Inc.) software.

Data collection

Data were collected from May 14, 2020 to June 18, 2020. The survey comprised an information sheet outlining the purpose of the study and use of the data. Data were collected relating to demographics, anxiety, coping strategies and organisational commitment. The demographic data collected included age, gender, nursing designation, type of ward worked in, length of time worked as a nurse, and employment status. Anxiety was assessed using the 6-item STAI (Marteau & Bekker, 1992). Participants had to rate each of the emotional states, namely being calm, tense, upset, relaxed, content, and worried, in relation to the current COVID-19 outbreak on a four-point Likert scale ranging from 1–4 (1 = not at all, 2 = somewhat, 3 = moderately, 4 = very much). The Cronbach's alpha for the STAI has been reported as 0.82, which demonstrates excellent internal consistency and reliability. The STAI has also been widely used in a variety of contexts including: Respiratory patients (Pepina-Galvan, Richart-Martinez & Cabanero-Martinez, 2011), breast cancer patients (De Vries & Van Heck, 2013), COVID-19 pandemic (Wong et al., 2020), smoking cessation (McDermott et al., 2013) and blood donation (Chell, Waller, & Masser, 2016).

Coping strategies were assessed using the 28-item, 14-subscale Brief-Coping Orientation to Problems Experienced (B-COPE) Inventory (Carver 1997). Participants had to rate each of the items on a four-point Likert scale ranging from 1–4 (1 = I haven't been doing this at all; 2 = I've been doing this a little bit; 3 = I've been doing this a medium amount; 4 = I've been doing this a lot). The Cronbach's alpha for the Brief COPE has been reported as 0.85, which also demonstrates excellent internal consistency and reliability. The Brief COPE has been widely used in a variety of settings including: HIV settings (Sanjuan, Molerio, Fuster, & Nouvilas, 2013), heart failure (Bean, Gibson, Flattery, Duncan, & Hess, 2009), terrorism (Stein et al., 2013), caregiving for a person with mental illness (Wrosch, Amir & Miller, 2011), among medical students (Yusoff, 2010) and additionally it has been used in varying cultures such as Chilean, Portuguese, Persian, French, and Malay populations.

Organisational commitment was assessed using the question "Due to the COVID-19 pandemic, has the thought of leaving your job crossed your mind?" In addition, respondents were asked to provide reasons for thinking of leaving their jobs.

Ethical considerations

This study was approved by the Local Health District HREC in which the research was conducted (Approval No.2020/ETH01075). No identifiable data was collected from any participant. Completion of the survey was considered as implied consent. All data obtained in the survey was stored securely on password protected computer systems at the hospital.

Data analysis

All data from Survey Monkey were exported to SPSS V25 for analysis. The demographic data were summarized using descriptive statistics including means, standard deviations and frequency distributions. For anxiety, the scores on the three positively worded items were reverse coded. The total summed scores for anxiety were multiplied by 20 and divided by six in order to obtain scores comparable to the full 20-item STAI (range from 20 to 80

Table 1
Demographic characteristics

Demographic categories	N (%)
Gender	
Female	45 (76.3)
Male	14 (23.7)
Employment status	
Full time	45 (76.3)
Part time	13 (22)
Professional designation	
Nurse/Midwife Unit Manager	32 (54.2)
Nurse/Midwife Manager	27 (45.8)
	Mean (SD)
Age (years)	48.8(9.9)
Length of time worked as a nurse or midwife(years)	25.6 (9.4)

(Marteau & Bekker 1992). Scores of 40 or above were defined as indicating anxiety (Julian 2011).

T-tests and Pearson's correlations were used to investigate the relationship between participant demographics, anxiety and coping strategies. A p -value of <0.05 was considered statistically significant.

Results

A total of 59 Nurse Unit Managers and Nurse Managers completed the survey during the study period. The majority of the respondents were female ($n = 45$, 76.3%), which is reflective of Nursing Management (zipppia.com). The mean age of the participants was 48.8 years and 76.3% of the respondents were working full time. Nurse Unit Managers accounted for 54.2% ($n = 32$) of the sample and the remainder were Nurse Managers. The respondents worked in a range of departments including medical, surgical, critical care, women's and child health. The mean number of years worked as a Registered Nurse was 25.6 years (Table 1).

Anxiety

The mean anxiety score was 47.0 (SD 15.0) with approximately three quarters (72.9% $n = 43$) of the managers having high anxiety scores (scores of 40 and greater). There was no significant correlation between anxiety scores and the age of the manager ($r = -.114$; $p = 0.40$) or the length of time they worked as a nurse ($r = -.149$; $p = 0.26$). There were also no statistically significant differences in anxiety scores between Nurse Unit Managers and Nurse Managers or those working fulltime or part-time.

Coping strategies

The mean scores for adaptive strategies were 35.9 (SD 7.9) and for maladaptive strategies were 19.34 (SD 5.6) (Table 2). Managers who had worked longer as a nurse had higher scores for adaptive strategies ($r = .265$; $p = 0.43$). However, there was no statistically significant correlation between anxiety scores ($r = .071$, $p = 0.59$) or age of the manager ($r = .161$, $p = 0.24$) and the adaptive strategies scores.

Nurse Managers with high levels of anxiety had higher scores for maladaptive strategies ($r = .626$; $p = 0.000$). However, there were no correlation between length of time worked as a nurse ($r = -.219$, $p = 0.09$) or age ($r = -.128$, $p = 0.34$) and maladaptive strategies. There were no statistically significant differences in adaptive and maladaptive scores between Nurse Unit Managers and Nurse Managers, or those working fulltime or part-time.

Table 2
Scores for ways of coping

Subscales of the B-COPE	Mean	Std. deviation
Active coping	5.31	1.79
Planning	4.66	1.72
Positive reframing	5.19	1.84
Acceptance	6.42	1.32
Humour	3.76	1.64
Using emotional support	4.03	1.38
Selfdistraction	4.98	1.81
Instrumental support	3.37	1.30
Total adaptive coping scores	35.97	7.92
Denial	2.36	0.80
Venting	3.20	1.14
Substance use	3.34	1.71
Behavioural disengagement	2.68	1.18
Selfblame	2.78	1.31
Religion	3.22	1.66
Total maladaptive coping scores	19.34	5.56

Organisational commitment

Twenty-four Managers (41%) indicated that to some extent they thought of leaving their jobs due to the COVID-19 pandemic. One of the main reasons stated for considering leaving their jobs was due to concerned about the safety of their families (23%). Other reasons for thinking of leaving their jobs were due to significant increase in workload, high anxiety levels among colleagues and lack of resources and support.

Discussion

The role of Nurse Managers has become more important during the COVID-19 pandemic as they are required to adapt to the rapidly changing situation to ensure that resources, information, changes in guidelines and staff safety are implemented and communicated, enabling frontline nurses to feel supported and prepared to deal with the unprecedented challenges. However, the impact of COVID-19 on Nurse Managers wellbeing and coping strategies is not well understood due to the paucity of literature. Therefore, this cross-sectional study explored the mental health, coping behaviours and organisational commitment of Nurse Managers at the height of the first wave of the COVID-19 pandemic.

The results from this study indicate that approximately 75% of Nurse Managers had high levels of anxiety during the first wave of the COVID-19 pandemic, this was irrespective of their age, years of experience as a nurse or employment hours. These findings are consistent with the literature on Nurse Managers' experience during Severe Acute Respiratory Syndrome (SARS), where Nurse Managers expressed being overwhelmed by the emerging situation due to the uncertainties about the infection, leading to increased levels of anxiety and stress (Lau & Chan., 2005). The high levels of anxiety among Nurse Managers in our study may be explained by the intensity and lack of predictability of COVID-19, a new and emerging threat. Most nurse managers in Australia have not experienced working in an emergency or disaster situation like COVID-19 previously, as the last pandemic experienced in Australia was the H1N1 influenza in 2009 which saw a peak period of approximately 18 weeks and hospitalisations significantly lower than COVID-19 (Australian Government Department of Health and Ageing, 2011). Lack of exposure to infectious disease epidemics and pandemics only heightens Nurse Managers anxiety as they attempt to juggle concerns about spreading the virus to family and friends (Zheng et al., 2020), managing resources, staff shortages and ensuring staff were educated and well supported (Hofmeyer & Taylor, 2020) as well as other financial, administrative and environmental pressures (Lau & Chan, 2005). These factors, coupled with

constant international media images showing overwhelmed nurses dealing with huge patient numbers without sufficient resources, contribute to high levels of anxiety.

Anxiety and fear are normal responses given the uncertainty of the current pandemic, however, acknowledging vulnerability and adopting appropriate strategies to cope are necessary for building psychological resilience among Nurse Managers (Cusack et al., 2016). The results of this study demonstrated that Nurse Managers with higher levels of anxiety was associated with the use of maladaptive coping strategies, that is, denial, substance abuse, venting, self-blame, or behavioural disengagement. This is concerning, as the literature describes maladaptive coping strategies as problematic and can be self-destructive, that negatively impact on mental wellbeing and can lead to social isolation (Thompson et al., 2010). However, these findings are consistent with the literature on Nurse Managers coping with SARS, who indicate an imbalance between the crisis and repertoire of coping strategies (Lau & Chan., 2005).

Despite some Nurse Managers using maladaptive strategies as a way to cope with the uncertainty of the pandemic, our study also found that Nurse Managers who had worked longer as a nurse and hence had more experience as nurses, adopted adaptive coping strategies. Adaptive coping strategies have been demonstrated to be more influential on stress management than maladaptive coping strategies (Holton, Barry, & Chaney, 2016), reducing negative emotions (Huang et al., 2020), improving performance and job satisfaction (Martinez-Zaragoza et al., 2020). Indeed, it is important to note that adaptive coping strategies were used by Nurse Managers with more experience. This may suggest that nurses entering the role of mid-level manager might be unprepared and overwhelmed with the demands of the role, and with the additional stress of the pandemic, result in them using maladaptive strategies to cope. Adaptive strategies are also linked to knowing self, and developed with personal reflection (Middleton, Jones, & Martin, 2021). It is therefore vital for organisational executives to foster an environment that focuses on adaptive coping strategies as part of routine practice and stress management, particularly for newer midlevel managers. (Raven, Wurie, & Witter, 2018) reports that workshops and training during the Ebola outbreak relieved fear and anxiety among Nurse Managers leading an ability to cope in the crisis, this included providing peer support programs. Providing these additional organisational supports are vital to ensuring Nurse Managers can implement coping strategies to protect their physical and mental health (Labrague & de los Santos, 2020a).

Fernandez et al (2020) identified that organisational preparedness is one of the main contributors to nurses' ability to cope during the pandemic. Additionally, Labrague and de los Santos (2020a) found that nurses who perceived higher organisational support generally had lower anxiety related to COVID-19. It is therefore imperative that Nurse Managers receive recognition by their organisation and feel valued. Wellbeing of nurses is associated with increased job satisfaction, performance and commitment to the job (Labrague & de los Santos, 2020a). This includes measures such as pandemic planning preparedness training and building a resilient organisation post COVID-19.

Of concern in this study was the high number of Nurse Managers who thought of leaving their jobs due to the COVID-19 pandemic. Our study highlighted that intention to leave the organisation or the profession was high, which may be due to the additional pressure, emotional exhaustion and work overload. This is consistent with research by Mo et al. (2020) who found that almost half of their participants thought of leaving their job during the pandemic due to concern for family safety, increased workload, colleague anxiety, lack of resources, and lack of support. The perceived threat of COVID-19 leads to psychological anxiety which forces nurses to consider quitting (Irshad, Khattak, Hassan, Majeed, & Bashir, 2020).

Limitations

Limitations are inherent when conducting research such as this and must be taken into account when considering the results of this study. A key limitation of this study is the sample of Nurse Managers was drawn from a single local health district in a metropolitan city, reducing sample size and hence the generalisability of the findings are narrowed. Additionally, data was self-reported which can potentially limit the validity due to possible over or underestimating responses, attributable to emotional bias. Despite these limitations the major strength of the study was that it was conducted during the peak of the first wave of the pandemic, hence the results are not subject to recall bias. The results from this study contribute meaningfully to the body of knowledge and highlight options for supporting Nurse Managers as they continue to lead staff impacted by the COVID-19 pandemic.

Further research using a broader geographical distribution of Nurse Managers is warranted to confirm findings. In addition, qualitative studies exploring the experiences of mid-level Nurse Managers during the pandemic in order to provide a holistic view should be undertaken.

Conclusion

The findings from this study highlight that Nurse Managers have anxiety related to the COVID-19 pandemic that can impact their ability to cope and ultimately their commitment to the organisation. In light of these findings, Nurse Managers need to be actively supported during a pandemic to address anxiety, ways of coping and intent to leave the organisation or profession. Building on Nurse Managers' existing coping strategies is required; however, the challenge is embedding training on coping mechanisms within daily practice rather than having to try to develop adaptive coping strategies in response to a sudden crisis.

Authorship contribution statement

The content is the authors' original work and has not been published or submitted for publication elsewhere. All authors have seen and approved the final version of this revised manuscript.

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Ethical statement

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Conflict of interest

None declared.

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