Presenteeism and Work-life Conflict: A Mixed Methods Study of Australian High Acuity Nurses

By

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Thesis
Submitted to Flinders University
for the degree of

PhD
College of Nursing and Health Sciences
19 March 2024

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ABSTRACT

Presenteeism refers to a situation where an employee attends work despite being unwell or experiencing personal issues, which affects their ability to perform their job effectively. This phenomenon is an ingrained aspect of modern work culture. Nurse presenteeism presents unique challenges due to the demanding nature of patient care, particularly in high acuity environments such as intensive care, perioperative and emergency room settings. Presenteeism impacts patient safety, nurse health and the healthcare system.

In this thesis, I conducted two studies that aimed to explore relationships between nurses' work functioning, job-stress-related presenteeism, health-related quality of life, supervisor support and patient safety. In addition, as nurses' experiences of nurse presenteeism, the impact on caring responsibilities, and how nurses cope with these issues were explored. A feminist pragmatism lens was used in this research. Data were collected from Australian nurses via a national cross-sectional survey, comprising a quantitative and qualitative component.

I found that nurse presenteeism, as measured by impairments in work functioning, led to increased job-stress-related presenteeism and decreased health-related quality of life. Nurses' strong commitment to patient care, advanced health literacy and concerns about staffing shortages were identified as factors which may contribute to presenteeism. I also found that high acuity nurses are experiencing work-life conflict, which causes and is caused by presenteeism.

I present an integrative discussion, firstly discussing the percentage of nurses in this study who experienced presenteeism. The associations between job-stress-related nurse presenteeism, nurses' work functioning, health-related quality, supervisor support, and patient safety, are highlighted. I discuss the impact of caring responsibilities on the experiences of presenteeism among nurses, and methods of coping with situations that lead to presenteeism. Also included are policy and leadership considerations relating to nurse presenteeism. Feminist theory, the Health Belief Model and the Presenteeism in Nursing Model are among the theoretical models discussed in relation to this research. An adapted version of the Presenteeism in Nursing Model is presented.

I include a broader discussion of the need for employers to recognise the challenges that nurses with caring responsibilities face, and of the larger structural issues in society. The meta-inference of this study is presented: high acuity nurses are experiencing work-life conflict, exacerbated by the COVID-19 pandemic, and by structural and organisational factors. This can both result in presenteeism and be the cause of presenteeism. Presenteeism decreases nurses' health-related quality of life.

Overall, this research presents original knowledge regarding the complex issues of nurse presenteeism and work-life conflict. The research outcomes offer recommendations for healthcare organisations, policymakers and researchers which if implemented, may reduce nurse presenteeism and work-life conflict, overall promoting the wellbeing of the nursing workforce.

DECLARATION

I certify that this thesis:

1. does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university

2. and the research within will not be submitted for any other future degree or diploma without the permission of Flinders University; and

3. to the best of my knowledge and belief, does not contain any material previously published or written by another person except where due reference is made in the text.

Signed.....

Date.....9/12/2023.....

ACKNOWLEDGEMENTS

They say ‘you can’t be what you can’t see’. I want to be kind, a great mother, and an inspiring academic. I am privileged to have many examples of these qualities in my life, and so there are many people I need to thank. A PhD imitates life, mimicking the peaks and troughs, so these acknowledgements include those who have helped me both in my personal life and research life.

I would also like to extend my appreciation to Dr Leila Karimi and Dr Mark Lee, for their research expertise. Their contributions included providing guidance around statistics and help with data analysis, crucial steps in the research process. Dr Jessica Rainbow provided valuable guidance in the beginning stages of this research.

Kim Milde and Beatrice Resch had been constants in my life, providing not only their unwavering friendship but also the confidence in myself that I often needed. The treasured moments we've shared, filled with laughter, stories, and, of course, a few drinks, have kept me going.

The world of academia can be challenging. However, Dr. Steve Parker, Dr. Nina Sivertsen, Dr. Katrina Breaden, and Dr. Amanda Muller have proven that it's possible to maintain both a sense of humour and kindness while navigating this world. Dr. Allison Roderick's ability to raise up others, has been a privilege to experience.

Dr. Diane Chamberlain has been more than just a supervisor; she's been a mentor, a colleague, and a friend. Her understanding of the unique challenges I faced while completing my PhD, while caring for three children, turned what could have been a traumatic experience into an enjoyable one. Her kindness, empathy, and expertise made all the difference. I have learned so much while under her mentorship.

Aunty Anna's support and encouragement, accompanied by her excellent cooking, have been invaluable, particularly as I navigated the early years of motherhood while studying.

To my Mum, who I am so lucky to have. Her parenting, generosity, resilience, and unwavering friendship have taught me so much, and has shaped who I am.

Helen and Nev (Mum and Dad) have treated me as their own from the moment we met. I am grateful for their love and support, not to mention Mum’s cheesecake.

Jessica Galletly's love and unwavering support, especially during times when I struggled to love myself, have been a guiding light. Her voice of reason, inspirational influence, and soul-soothing presence have been immeasurable. Larissa Burke has also been an important support on this journey, helping me when I needed it most but above all giving me hope for the future.

Alice Smith has embraced the chaos of my life, helping me navigate life's choices and treating my children as her own. She is nothing short of incredible, and I'm grateful for our friendship.

Ren and Tayla have not only brought boundless love to my life but also the wisdom to be unapologetically themselves. Their generosity in sharing knowledge and their affection for my children are deeply appreciated.

Tess has been a constant support, offering sage advice and ensuring I take care of myself. Our derp club, shared meals, and quiet support during my most challenging moments have been a source of strength.

Owen, Marley, and Jude have injected pure joy into my life. Their laughter and ability to put everything in perspective have been a constant reminder of life's simple pleasures. Throughout this process they have reminded me of what is important.

And to Wayne, my love, my friend, my hero—thank you for standing by me, even when I come up with (arguably) too many ideas. Your unwavering support and incredible dedication to our family have made me a better person. You are my heart and soul, and you make every day brighter.

Donna Armstrong provided copyediting and proofreading assistance, in line with the ‘Guidelines for editing research theses’. The completion of this thesis was supported with an Australian Government Research Training Program Scholarship.

This thesis is dedicated to the mothers, the nurses, the women. You matter.

CHAPTER 1: INTRODUCTION

Navigating nurse presenteeism: the backstory

Chapter overview

Nurse presenteeism, which refers to the practice of attending work while sick or unwell, has emerged as a major concern in the nursing profession. The high levels of stress and burnout experienced by nurses can contribute to presenteeism, which can negatively impact patient outcomes. While there has been extensive research on presenteeism in nursing, little attention has been given to the unique challenges faced by nurses working in high acuity settings such as intensive care, perioperative and emergency department settings. This research responds to the need to explore and describe presenteeism in the Australian nursing workforce, and the corresponding issues facing these nurses in high acuity settings. This mixed methods research study aims to investigate the factors contributing to presenteeism among nurses working in high acuity settings and identify potential interventions to address these challenges.

Chapter 1 includes the background of the problem, an introduction to the literature and the purpose of the study. It then outlines the research questions and gives an overview of the significance of this research to policy, along with the corresponding research approach, framework, methodology and methods used. Finally, a summary of the contribution to original knowledge, and thesis structure, are presented.

Opening statements

> *When Sarah returned to her role as a nurse in an emergency department after maternity leave, she struggled to cope. "Returning to work in a busy emergency department whereby the number of patients consistently exceeds our capacity, from maternity leave, has made me feel physically, mentally and emotionally exhausted after a shift", says the experienced nurse. Fatigue was a constant presence, and rest was hard to come by due to the demands of caring for small children.*
>
> *'My role as a mother does not allow me to properly rest prior to my shifts, therefore dealing with this constant high level of stress in the workplace has certainly impacted on my attitude*

towards my workplace. I do maintain to strive to deliver safe and thorough care to my patients at all times,' says Sarah. 'The kids are always sick from day-care, so someone has to take time off. It's a circle … I'm always tired.'

This story is a common one among nurses who have children, ageing parents or are responsible for the care of a relative with a disability. Many nurses experience challenges in their lives that impact their work engagement and concentration. As a nurse, mother and researcher, I am familiar with stories such as Sarah's. I have had many colleagues voice concerns about themselves or others not being fully present at work, and the increased workload this puts on their colleagues. The dichotomy of a professional nursing role and domestic caring responsibilities, and the guilt evoked when trying to achieve in both areas of life, is a common experience.

Many people have attended work while sick at one point or another. Most of us think that going to work sick is not a big deal and is perhaps even normal in some workplaces. However, attending work while sick has emerged as a major concern – so much so that it now has its own name: 'presenteeism'.

Presenteeism refers to a situation where an employee attends work despite being unwell, or experiencing personal issues, which affects their ability to perform their job effectively. This phenomenon is a prevalent and complex aspect of modern work culture. Presenteeism is embedded in working life, so much so that this concept extends beyond the boundaries of reality, finding its reflection in popular culture, where characters in movies, TV shows and literature are often 'presentees'. In one episode of medical drama *Grey's Anatomy*, Dr Meredith Grey continues to work despite experiencing the early symptoms of appendicitis. She hides her condition from her colleagues and attempts to perform surgery while in pain.

And remember the iconic television advertisements by Codral™? If the ear-worm advertising jingles are not cemented in your memory, the catchy chorus went like this: 'Soldier on with Codral, soldier on!' One advertisement from 2012 portrayed a busy mother preparing breakfast for her two school-aged children, rushing to get ready for work despite battling cold and flu symptoms. They all

had important tasks to accomplish, work to complete, and so they reached for their trusty packet of Codral™, determined to soldier on.

While COVID-19 has significantly changed attitudes towards being around others while having cold and flu symptoms, glorification of working while sick can still be seen in popular culture. Another Codral™ advertisement which aired in 2020 begins with text on screen stating 'Here's to the soldier in all of us'. It then depicts scenes showing two girls playing a game in a bedroom, a man providing guitar lessons from his home on Zoom, and a woman seated at a dining table with four children with computers. People are also pictured demonstrating social distancing at a café, and a man working from his living room wearing a suit jacket and boxer shorts. The advertisement ends with text on screen stating 'We salute you Australia for finding new ways to soldier on. Please stay home if feeling unwell.'

These commercials featured people from diverse backgrounds, all embodying responsibility, strength and success. Despite waking up with cold and flu symptoms, these individuals had others depending on them, and taking a sick day was not an option. Calling in sick was reserved for those who shirked their duties, for idlers and underachievers. It was certainly not the path chosen by these morally upright and hardworking citizens.

As in these fictional examples, real-world employees often find themselves working through serious physical, emotional and psychological challenges to meet the demands of their jobs. This is especially true in the nursing profession. Despite facing immense pressure at work, even on good days, nurses keep showing up, even when unwell.

Presenteeism is a growing concern within the nursing profession and is a critical area of enquiry. Presenteeism is associated with higher rates of patient falls, medication errors and a poor patient safety culture (Brborovic & Brborovic, 2017; Brborovic et al., 2014; Letvak et al., 2012). Presenteeism can lead to nurses having difficulty completing certain work tasks (e.g. medication calculations), completing documentation and performing patient care (Rainbow, 2019). When nurses attend work while unwell or not fully present, decreased job satisfaction and burnout can occur, leading also to high turnover rates and staffing shortages (Letvak et al., 2012).

In this thesis, I delve into presenteeism as experienced by nurses working in high acuity settings in Australia. Nurse presenteeism is a relatively new area of research, with little attention given to the specific challenges faced by nurses working in high acuity environments such as intensive care, perioperative and emergency department settings.

How common is presenteeism among nurses in high acuity settings? Why does presenteeism happen, and what problems does it cause? For this thesis, I conducted mixed methods research to shine light on these questions. By combining qualitative and quantitative data, I offer a comprehensive understanding of this complex challenge. I focus specifically on nurse presenteeism in demanding, high acuity workplaces in Australian healthcare.

Presenteeism is not just a risk to the occupational safety of nurses. Since the health of patients depends on nurses performing at their best, presenteeism poses a genuine risk to life and limb. I conclude my thesis by making specific recommendations for policy change, leadership and future research that will be crucial for addressing the challenge of presenteeism in Australia. Addressing this challenge is essential if we intend to protect the health of Australians today and in the future.

Background and context

The term ‘presentee’ was first coined by Mark Twain in his 1892 book *The American Claimant* (Twain, 2014), after which the term appeared in various business literature. The word presenteeism was first explored and used by Uris (1955) and Canfield and Soash (1955) to conceptualise productivity loss despite being at work. Presenteeism has been gaining academic interest since the late 1990s and the term has now been used in multiple industries by occupational health, epidemiology and management scholars. While the closely related concept of absenteeism has a much longer research history, interest in presenteeism is more recent.

Absenteeism, defined as nonattendance at work, has been the subject of extensive research due to the negative impact on workers’ health, reduced quality of healthcare services, financial losses, and its status as an indicator of workplace adjustment (Johns, 2009; Mininel et al., 2013). On the other hand, according to Miraglia and Johns (2016, p. 3), presenteeism represents a ‘much occupied

but only recently studied state between being absent (and ostensibly exhibiting no productivity) and fully productive work engagement'. Presenteeism is believed to now be more prevalent than absenteeism, and points to the need for organisations to reconsider their approaches regarding regular work attendance (Gosselin et al., 2013).

There has been a focus on how illness and work context factors impact presenteeism and the related systemic, organisational and personal implications (Aronsson & Gustafsson, 2005; Hansen & Andersen, 2008; Johns, 2010). Presenteeism may be observed in individuals who attend work for various reasons, such as to cope with personal stressors (including their medical condition), to reduce their co-workers' workload due to a shortage of staff, or to respond to financial pressures (Aronsson & Gustafsson, 2005).

Presenteeism in nursing has some unique problems that other industries do not have. Nurses are exposed to the continuous and unique mental and physical demands of caring for patients, particularly those nurses working in a high acuity environment. It is also feasible that high acuity nurses, specifically those working in intensive care, perioperative and emergency department settings, are particularly vulnerable to the antecedents of presenteeism. Nurses working in these settings are exposed to challenging daily work routines, high patient morbidity and mortality, and regular encounters with challenging traumatic and ethical situations (Donchin & Seagull, 2002; Mealer et al., 2007). High job demands, including physical, cognitive and social factors, lead to prolonged physical and psychological effort (Bracewell et al., 2010).

Presenteeism in the nursing profession is dangerous. According to the Nursing and Midwifery Board of Australia (NMBA, 2023), registered nurses determine, coordinate and provide safe, quality nursing. However, nurse presenteeism is damaging to patients, healthcare staff, hospitals and healthcare systems (Dhaini et al., 2017; Letvak et al., 2012). Nurse presenteeism is a barrier to accomplishing nursing responsibilities, such as completing documentation and performing patient care (Rainbow, 2019). Presenteeism is preventing nurses from providing safe care to patients.

The health and well-being of registered nurses is another important contributing factor to quality patient care and safety (Burke et al., 2011). Increased clinical workloads and financial pressures

from the economic downturn may promote the tendency for nurses to go to work while unwell or impaired (Letvak et al., 2012; Prater & Smith, 2011). The frequently changing nature of healthcare, fatigue related to shift work, and pressure to balance work and personal life are also contributing factors (AlAzzam et al., 2017; Mcdonald et al., 2016). Nursing is an emotionally demanding profession, and low productivity, absenteeism and presenteeism are linked with deficiencies in nurses' mental well-being (Perry et al., 2015).

Patient care is negatively impacted when there is a shortage of nurses (Kvist et al., 2014; Masum et al., 2016). In 2020, there were approximately 65.1 million healthcare workers globally, of which nurses and midwives comprised 48%% (31.3 million) (World Health Organization (WHO), 2017; Bonion et al., 2022). Despite this seemingly large number, there is a mismatch between the supply and demand of nurses (Nursing Review, 2013). The global nursing shortage was estimated to be 5.9 million nurses in 2018, and is predicted to continue to rise (WHO, 2020). By 2030, the World Health Organization foresees a shortage of approximately 10 million healthcare workers, with the majority of the deficit anticipated in low and lower-middle-income countries (WHO, 2023).

In Australia, nursing comprises the single largest health profession. There were more than 642,000 registered health practitioners working in their registered professions in Australia in 2020, of which over 50% (349,589) were nurses or midwives (Australian Institute of Health and Welfare, 2022). In Australia, the nursing shortage is predicted to worsen, rising from a shortage of 20,079 nurses in 2016, to 85,357 by 2025 and 122,846 by 2030 (Duffield et al., 2014; Health Workforce Australia, 2014b). This means an estimated 27% decrease in the current workforce, or approximately 109,000 nurses, by 2025 (Health Workforce Australia, 2014a).

Therefore, to protect our patients, nurses and communities, it is crucial to protect the health and well-being of our nursing workforce. According to Buckley (2015), nurses are at a greater risk of work-related stress, anxiety and depression than those working in other occupations. This is confirmed by other studies showing that the emotional demands of healthcare work contribute significantly to the high levels of stress, compassion fatigue and burnout experienced in this industry (Bakker & Sanz-Vergel, 2013; Kinman & Grant, 2016). For nursing staff to provide high-quality and

safe care, their own health and well-being needs to be given high priority (Boorman, 2009). The health and well-being of the nursing workforce is essential for safe and effective patient care (Dyrbye et al., 2017; Hall et al., 2016).

While the cost incurred due to absenteeism is well known, there is increasing evidence that presenteeism results in substantial costs to organisations due to decreased productivity while at work (Letvak et al., 2012; McTernan et al., 2013; Zhang et al., 2015). Recent evidence demonstrates that the costs to organisations of health-related and work environment–related problems can exceed the individual's wage (Strömberg et al., 2017). The wide-ranging impact of presenteeism is receiving increasing attention and it is worthy of consideration in a broader context. There is a need to recognise presenteeism as a challenge for the economy, social policy, public health and human resource management (Pärli, 2018).

Purpose of the study

The overarching purpose of this research is to explore nurse presenteeism in Australian high acuity settings.

Research questions

1. Within this study, what percentage of high acuity nurses in Australia report presenteeism?
2. What are the associations between nurse presenteeism, health-related quality of life, supervisor support, and patient safety?
3. What is the impact of caregiving responsibilities on the experiences of presenteeism among nurses?
4. What methods of coping with situations that lead to presenteeism do nurses find effective?
5. What policy and leadership considerations arise from nurse presenteeism in Australia?

Methodology

This research applies a feminist pragmatism lens to explore the link between nurse presenteeism and caring responsibilities. Nurse presenteeism intersects with feminist issues, given that women

comprise over 80% of the nursing workforce (NMBA, 2021b). Feminist pragmatism is a theoretical foundation that aligns with the researcher's own worldview and the context of the study. Feminist pragmatism emphasises social justice and improving the lives of others, which is highly relevant to both healthcare generally and nursing specifically (Im, 2013; Thompson, 2014). Historically, women have borne the weight of caregiving responsibilities, including tending to children, the elderly and the ill (Kessler, 2000). Consequently, career breaks, gender discrimination and undervaluation of women's skills have exacerbated the gender pay gap in Australia (Chang et al., 2014) and contributed to the overall undervaluation of caregiving professions. In most regions or countries, women are more likely than men to undertake work that is uncertain, unstable and insecure, and in which workers bear the risks of work (as opposed to businesses or the government) and receive limited social benefits and statutory entitlements (Barbieri et al., 2017).

The stress and juggle of caring for children and ageing parents, in addition to managing nursing work, is a major issue facing nurses. As discussed by Ong et al. (2023), the culture of self-sacrifice within the nursing profession exacerbates these difficulties, ultimately affecting patient safety. As a result, women are frequently affected by the expectation to attend work despite the emotional, physical and mental toll of their domestic and professional workloads. Nurses with child-rearing responsibilities exhibit an increased susceptibility to burnout and job dissatisfaction (Chayu & Kreitler, 2011; Takayama et al., 2017). Presenteeism can therefore be linked to the mental, physical and emotional strains of caregiving, a responsibility that predominantly falls on women. There is a need for research that considers nurse presenteeism from a feminist perspective, to create knowledge which facilitates exploration of strategies to assist with managing these important roles.

Research methods

A convergent parallel mixed methods design was used to investigate the impact of nurse presenteeism in high acuity settings. The quantitative method of cross-sectional surveying – and the qualitative method of open-ended survey questions converged in the final phase of this study. A convergent parallel mixed methods design involves the simultaneous collection of quantitative and

qualitative data, which are combined during the overall interpretation of results (Edmonds and Kennedy, 2017).

Contribution to original knowledge

The findings from this study show that nurses are experiencing intensified work-life conflict due to the impact of structural and organisational work factors, combined with the demands of caring responsibilities. This can both result in presenteeism and be the cause of presenteeism. Presenteeism decreases nurses' health-related quality of life.

Structure of thesis

This thesis consists of eight chapters. This chapter has introduced the study, provided background literature and context, and conveyed the purpose of the study, the research questions that will be answered in this thesis, and the methodology and methods used. The remaining seven chapters are organised as follows. Chapter 2 provides a focused literature review, to situate this research within the context of high acuity nursing and to analyse what is known. A broader literature review, focusing on nurse presenteeism internationally, is presented in Chapter 3. Chapter 4 discusses methodology, including the research approach, research design and specific research methods. Quantitative findings are presented in Chapter 5, and qualitative findings in Chapter 6. Chapter 7 presents an integrated discussion, followed by the conclusion in Chapter 8.

Conclusion

This thesis presents the exploration of nurse presenteeism in the context of high acuity healthcare settings in Australia. Nurse presenteeism, the practice of working while unwell or while experiencing personal challenges, has emerged as a critical issue in the nursing profession. In this thesis, I shed light on the work-life conflict facing nurses and its implications for both nurses and the broader healthcare system.

Findings present the percentage of nurses in this study who have experienced presenteeism, and the associations between nurse presenteeism, health-related quality of life, supervisor support, and patient safety.

Caring responsibilities, particularly those borne by women, were identified as a significant factor contributing to presenteeism among nurses. Work-life conflict has been exacerbated by COVID_19 and contributes to a cycle of presenteeism. Nurses with caregiving responsibilities may be particularly susceptible to presenteeism, emphasising the need for a more nuanced understanding of this issue and strategies to improve this.

The study also highlights the value of considering nurse presenteeism through a feminist pragmatism lens. This perspective aligns with the values of social justice and the improvement of the lives of women, which are both highly relevant to nursing, an overwhelmingly female-dominated profession. The undervaluation of caregiving professions and the gender pay gap, along with the challenges nurses face in balancing their professional and caregiving roles, make this feminist perspective vital in understanding and addressing nurse presenteeism.

This thesis provides an original contribution of knowledge to the understanding of presenteeism and work-life conflict facing Australian high acuity nurses. These findings have implications for future nurse recruitment and retention, and they highlight the urgency for organisations to overhaul leave policies, promote work-life balance and raise awareness about the issue of presenteeism.

In conclusion, nurse presenteeism is a complex and multifaceted issue that requires attention, awareness and interventions to safeguard the health and well-being of nurses, and the quality of patient care and the overall healthcare system. The findings of this research can serve as a valuable resource for healthcare organisations, policymakers and researchers in addressing presenteeism and promoting the welfare of the nursing workforce in Australia.

Chapter summary

Chapter 1 introduced the concept of nurse presenteeism within the unique and demanding context of Australian high acuity settings. It laid the foundation by providing background information

and context, and presented the overarching purpose of this research. The research questions were listed, along with the methodology and methods used to answer them. The chapter also described the structure of this thesis.

A focused literature review, to examine what is known about nurse presenteeism in Australian high acuity settings, is presented in Chapter 2.

CHAPTER 2: LITERATURE REVIEW

High acuity nurse presenteeism: what do we know?

Chapter overview

Chapter 2 presents a integrative literature review of nurse presenteeism in high acuity settings. This review extracted and critiqued all available evidence on this issue, relating to this specific population. A lack of evidence was noted, and strengths and weaknesses of the available evidence are discussed. The resultant gap in knowledge is highlighted, along with strategies for addressing this gap through this research study.

Presenteeism in high acuity settings

Nurse presenteeism in high acuity settings is the focus of this doctoral research and therefore this integrative review. High acuity refers to settings in which patients require complex, immediate care – the level of acuity – and is often used to describe the required ratio of nurses to patients in various care settings (Forero & Nugus, 2012). This is different from acute care, the primary purpose of which is to improve health and whose effectiveness largely depends on time-sensitive and, frequently, rapid intervention (Hirshon et al., 2013). High acuity patients often present challenging medical conditions, with significant, unpredictable healthcare needs. This term often refers to a patient who is very sick, or has the potential to become very sick, quickly. High acuity settings can be places of extreme activity and are usually in an ongoing state of flux (MacDonald, 2010). Nurses working in high acuity settings, including intensive care, critical care, operating room, coronary care and emergency department settings, are exposed to unique, stressful work-related factors. This is supported by Epp (2012), who states that high patient acuity, high levels of responsibility, working with advanced technology, caring for families in crisis and involvement in morally distressing situations are all chronic occupational stressors. Presenteeism is driven by psychosocial work characteristics, not just the individual health status of an employee (Janssens et al., 2016).

Therefore, nurses working in high acuity settings may be at increased risk of presenteeism due to the demands of work in these environments.

Nurses working in high acuity settings may experience an increased level of presenteeism due to the patient care they are required to provide. Human Service Organisations theory posits that tasks involving caring or helping one another generate a greater disposition to work when feeling or being sick (Aronsson et al., 2000). Another issue experienced by nurses working in high acuity settings is fatigue. According to Barker Steege and Nussbaum (2013), excessive demands from work tasks, environmental factors and organisational factors can negatively impact the physical and cognitive abilities of workers. Factors that may jeopardise health of employees within the nursing profession include long-term understaffing, limited time off for education and training, on-call scheduling, and work assignments outside of one's specialty area (MacDonald, 2010). Long work hours, circadian disruption, complex and high acuity patients, and insufficient staffing ratios are all factors associated with fatigue in the nursing population (Smith-Miller et al., 2014; Steege et al., 2015). The impact of work hours and schedules on stress levels is well known in the healthcare industry, both of which can have a negative effect on an individual's health (Dall'Ora et al., 2016; Sparks et al., 1997). Nurses working in high acuity settings are often presented with rapid patient turnover, shift work including night shift, long hours, and complex nursing decisions (Hayes et al., 2010). This combination of occupational stressors is unique to high acuity environments; therefore, nurses working in these settings may be more likely to experience presenteeism.

Presenteeism has been linked to increased rates of medication errors, patient falls and negative nurse well-being (Rainbow & Steege, 2017). Nurse presenteeism is the subject of increasing attention as it may negatively affect specific elements of nursing care, including patient outcomes (Letvak et al., 2012). Johns (2010) found that hospital cultures encourage presenteeism when promoting loyalty, teamwork and professional identity. Other research has found that difficulty in replacing staff, attitudes towards their own health, and the increased efforts required to make up for an absence encourage presenteeism in healthcare workers (Aronsson et al., 2000; Elstad & Vabø, 2008; McKevitt et al., 1997). However, the impact of presenteeism on nurse well-being and patient

safety has yet to be fully assessed. Despite this, it is widely accepted that presenteeism is undermining the capacity of nurses to deliver safe, responsible, holistic patient care (Brborovic & Brborovic, 2017; Letvak et al., 2012; Oliveira et al., 2015; Widera et al., 2010). In the challenging realm of high acuity nursing, nurse presenteeism may have a significant detrimental impact on both nurses and patients. As care is being provided to patients who are very sick, or may become very sick quickly, it is crucial for nurses to provide safe, comprehensive care in these environments.

Integrative review questions

The phenomenon of presenteeism is receiving increasing attention, particularly in healthcare, due to the costs and implications relating to the economy, social policy, public health and human resource management (Pärli, 2018). While monitoring and managing sickness absence has been widely researched, presenteeism is known as an 'invisible behaviour' as measuring its occurrence is time-consuming and costly (Kinman, 2019, p. 69). Presenteeism is therefore often hidden. Investigating and measuring presenteeism in high acuity settings is challenging and there is much that is unknown. Therefore, the questions we sought to answer in this review were:

What is known about nurse presenteeism in high acuity settings (intensive care, perioperative and emergency department settings)?

a. What is the impact of nurse presenteeism in high acuity settings, on nurses and patients?
b. What factors lead to nurse presenteeism in these settings?
c. How is nurse presenteeism in high acuity settings measured?

Methods

Search strategy

An integrative literature review was conducted on nurse presenteeism in high acuity settings. Literature was extracted from online databases Ovid MEDLINE, CINAHL (Cumulative Index to Nursing and Allied Health Literature), Scopus and PsycINFO, in July and August 2019. The search terms used to identify literature included (nurse OR nursing) AND (presenteeism OR) ((work* OR

attend*) W/2 (ill* OR sick*)) AND (“operating theatre” OR surgery or “operating room” OR acute OR perioperative OR emergency OR intensive OR “high acuity”).

Inclusion and exclusion criteria

The inclusion criteria (see *Table 1*) required studies to have investigated presenteeism in members of the nursing workforce in high acuity settings, including acute care settings such as intensive care, perioperative and emergency department settings. Studies considered in this review were recent evidence, published from 2009 to 2019, and written in English. Exclusion criteria excluded studies looking at presenteeism in other areas of nursing, or in relation to other groups of health professionals (e.g. doctors, allied health team members). Studies that explored other types of productivity, including absenteeism or work-related illness, or workplace culture or mental health were also excluded.

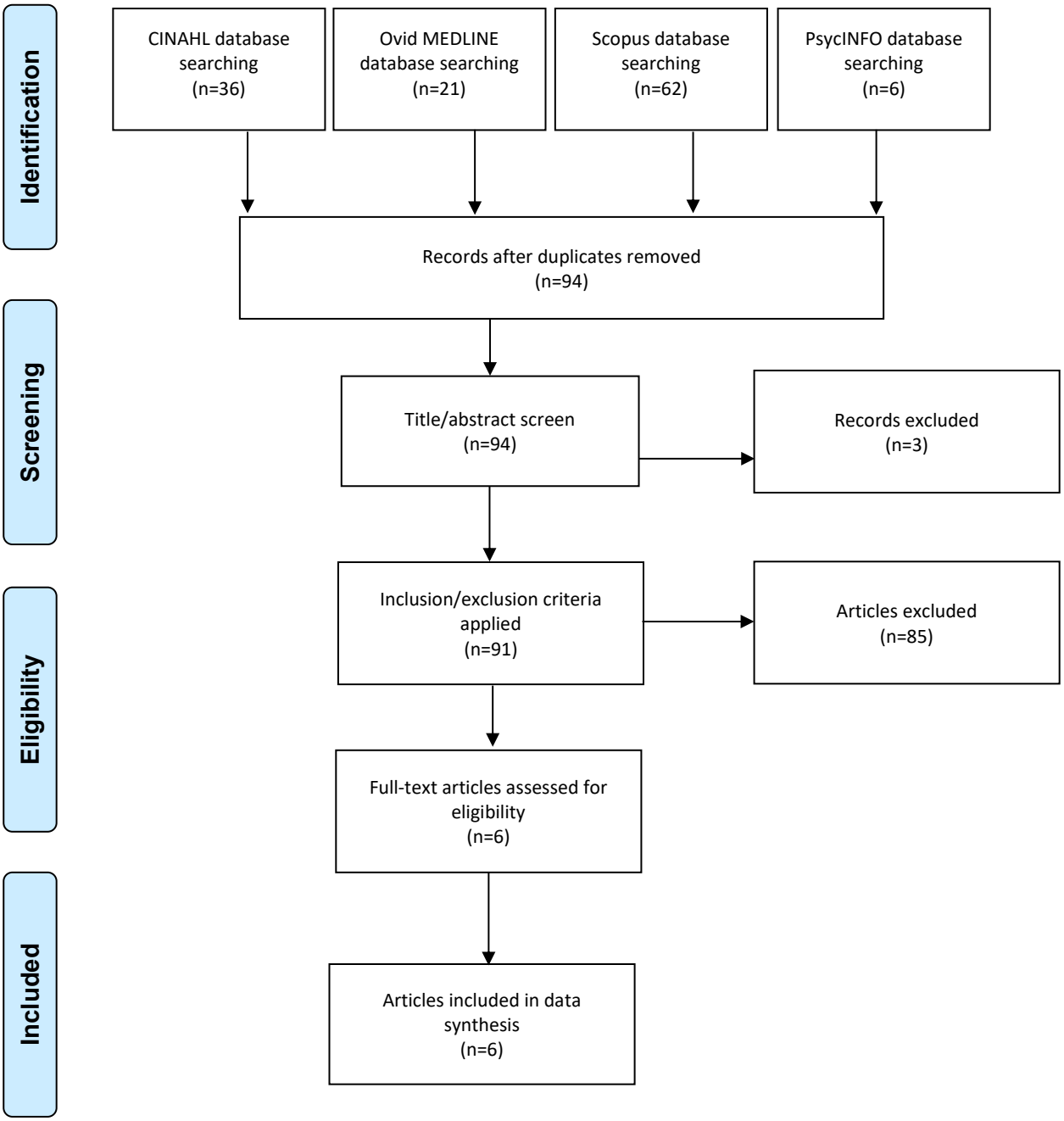
Article selection

The search resulted in a total of 21 articles from Ovid MEDLINE, 36 from CINAHL, 62 from Scopus and 6 from PsycINFO. The abstracts from these articles were screened based on relevance and duplicates were removed, resulting in 94 articles. As a result of title/abstract screening, two articles were excluded as the full text was not available in English, and one article was excluded as it investigated nursing workload, not nurse presenteeism. Of 91 articles, six were identified to have met the inclusion and exclusion criteria. Eighty-five articles were excluded because the population of interest did not pertain to the high acuity nursing workforce. The reference lists of all selected studies were also manually searched to identify other relevant studies. The number of studies that were retrieved, the screening process and application of inclusion/exclusion criteria are shown in *Figure 1*. The final six articles selected for review are summarised in *Table 2.*

Table 1. Inclusion/exclusion criteria (High acuity nurse presenteeism: what do we know?)

Category	Inclusion criteria	Exclusion criteria
Population of interest	Studies investigating presenteeism in members of the nursing workforce in high acuity settings, including acute care settings such as intensive care, perioperative and emergency department settings	Studies looking at presenteeism in other areas of nursing, or in relation to other groups of health professionals (e.g. doctors, allied health team members)
Subject of interest	Presenteeism (also known as sickness presenteeism)	Studies exploring other types of productivity, including absenteeism or work-related illness, or workplace culture or mental health
Type of study	Original research	Previously published literature reviews and systematic reviews
Publication language	Articles written in English	
Publication dates	Studies published from 2009 to 2019 (considered recent evidence)	Studies published before 2009
Publication type	Research published in a peer-reviewed journal	

Figure 1. PRISMA flow diagram: retrieval of studies



From: Moher et al. (2009)

Table 1. Summary of included studies

Author, year and country	Title	Study type	Measures	Population and sample size	Setting	Findings	Strengths and limitations
Jiang et al. (2019) Canada	Which healthcare workers work with acute respiratory illness? Evidence from Canadian acute-care hospitals during 4 influenza seasons: 2010–2011 to 2013–2014	Prospective cohort	Online illness diaries	2093 healthcare workers (HCW)	9 acute care hospitals	Over the 4 studied seasons, 2222 episodes of acute respiratory illness (ARI) were reported (incidence of 0.81). 52% reported working on every scheduled day, whereas 94.6% reported working at least 1 day while sick. Risk of working during ARI episodes was higher for physicians and lower for nurses than for other HCWs. Participants who worked in high-risk work areas were more likely to work while symptomatic than those from other hospital areas.	Strengths: Real-time data were collected via online diaries Data were collected over four influenza seasons Limitations: Occupations were not proportionately reported The tool used to collect data was not well described

Author, year and country	Title	Study type	Measures	Population and sample size	Setting	Findings	Strengths and limitations
Rantanen and Tuominen (2011) Finland	Relative magnitude of presenteeism and absenteeism and work-related factors affecting them among health care professionals	Cross-sectional	Hours of absenteeism and presenteeism were estimated during the last 4 weeks, using a visual analogue scale	169 nurses and physicians	3 hospitals	37.4% of respondents had experienced presenteeism during the preceding 4 weeks. The mean time at work when sick was 16.0 hours, and their estimated average loss of working capacity during those hours was 45.4%. The average overall monetary value of presenteeism for the 4-week period was €273.75 per person, whereas, surprisingly, the overall monetary value of absence due to health reasons was €373.87 per person. Therefore, presenteeism had significant economic value, although not as significant as absenteeism. Respondents who had been absent for more hours due to health reasons had also experienced more hours of presenteeism and had felt greater	Strengths: Process of participant recruitment was clearly described Limitations: Validity of survey tools was not reported Relatively small final sample size

Author, year and country	Title	Study type	Measures	Population and sample size	Setting	Findings	Strengths and limitations
						loss of working capacity while at work. The more work pressure the respondents felt, the more hours they worked while sick. The less job satisfaction they felt, the more they worked when sick. Those who had experienced presenteeism during the last 4 weeks had shorter working experience and more often chronic and acute disease(s).	
Silva et al. (2019) Brazil	Presenteeism in multi-professional team workers in the Adult Intensive Care Unit	Cross-sectional	SPS-6	62 multi-professional team members	Adult intensive care unit of a large Brazilian hospital	The following total presenteeism values were found: mean 14.8; median 16.5; SD 6.8; study range 6–27 points. Mean and median total scores lower than 18 indicate a lower concentration capacity and reduction in performance at work. Analysing the variable sex showed values among men	Strengths: Clearly focused issue Design is appropriate to answer the research question Limitations: Relatively small sample size, which may impact generalisability

Author, year and country	Title	Study type	Measures	Population and sample size	Setting	Findings	Strengths and limitations
						(n=13) of mean 18.69; median 19.00; SD 5.360 and range 6–27; while values among women (n=41) were mean 13.63; median 14.00; SD 6.888; and range 0–26. P value = 0.021, demonstrating statistical significance. The variable absence from work presented statistical significance (p=0.040). Values for those stating absence from work (n=25) were mean 16.88; median 17.00; SD 6.710; and range 6–27. Values for those who declared no absence from work (n=29) were mean 13.10; median 14.00; SD 6.608; and range 6–23. Those who reported having dependent children presented higher values when compared with those who did not have children. The values for those with children (n=29) were mean 10.66; median 11.00; SD 4.64;	

Author, year and country	Title	Study type	Measures	Population and sample size	Setting	Findings	Strengths and limitations
						and range 3–15. Values for those who did not have children (n=25) were mean 7.40; median 9.00; SD 4.46; and range 3–14. This variable presented statistical significance, with p=0.008. Those who reported having already been away from work had higher values than those who had not been absent from work.	
Szymczak et al. (2015) United States of America	Reasons why physicians and advanced practice clinicians work while sick: a mixed-methods analysis	Mixed methods	Survey developed by researchers	538 physicians or advance practice clinicians	The Children's Hospital of Philadelphia	95.3% of respondents believed that working while sick puts patients at risk. 21.8% (n=117) reported working sick once in the past year, 52.0% (n=279) 2–4 times, and 9.3% (n=50) 5 or more times. 55.6% (n=299) of respondents reported they would work with the acute onset of significant respiratory symptoms, whereas	Strengths: Relatively large sample size Mixed methods design gives a comprehensive understanding of the issue under investigation Limitations: The survey used has not been validated Data analysis of qualitative data was not reported

Author, year and country	Title	Study type	Measures	Population and sample size	Setting	Findings	Strengths and limitations
						30.0% (n=116) would work with diarrhoea. Reasons for coming to work sick included not wanting to let colleagues down (n=521; 98.7%), concern that not enough staff would be available to care for patients (n=505; 94.9%) and not wanting to let patients down (n=494; 92.5%). Analysis of open-ended responses showed three major insights as to why respondents work while sick: systems and logistics; cultural norms; and ambiguity about what symptoms justify taking sick leave.	The integrations of qualitative and quantitative components were unclear

Author, year and country	Title	Study type	Measures	Population and sample size	Setting	Findings	Strengths and limitations
Umann et al. (2014) Brazil	Stress, coping and presenteeism in nurses assisting critical and potentially critical patients	Cross-sectional	Inventory of Stress in Nurses (ISN) Occupational Coping Scale (OCS) Work Limitations Questionnaire (WLQ)	129 nurses	Units receiving potentially critically ill patients at Rio Grande do Sul Public Hospital	Low-intensity stress for this population was indicated by a general average of 2.7 (SD=0.63) on the ISN scale; 66.7% of nurses had low stress values. Highest scores for general occupational stress were shown in paediatric and emergency settings. 87.6% of nurses used control strategies for coping with stress, and 4.84% had decreased productivity. Direct and significant correlations were established between the scores of the WLQ scales and ISN, which confirms the relationship between stress and lost productivity in nurses who assist critical and potentially critical patients.	Strengths: Research question clearly identified Research method was appropriate for answering the question Validated tools used Limitations: Potential bias in relation to recruitment Response rate was unclear

Author, year and country	Title	Study type	Measures	Population and sample size	Setting	Findings	Strengths and limitations
Yokota et al. (2019) Japan	Association of low back pain with presenteeism in hospital nursing staff	Cross-sectional	Work Limitations Questionnaire Japanese version (WLQ-J) Centre for Epidemiological Studies Depression Scale (CES-D)	765 nurses	Large university hospital	494 (64.6%) participants had lower back pain (LBP) during the last 12 months. Nurses with LBP were further divided into acute LBP and chronic LBP groups, resulting in 363 (47.5%) in the acute LBP group, 131 (17.1%) in the chronic LBP group, and 271 (36.4%) in the group without LBP. There was no relationship between acute LBP and work productivity. After adjustment for career years, sex and the presence of depression, there was no significant association between chronic LBP and work productivity. Only chronic LBP showed a relationship with presenteeism.	Strengths: Relatively large sample size Validated tool was used Limitations: Recruitment process was not clearly described

Critical appraisal

A total of six studies fit the inclusion criteria and were included in this review: five quantitative studies and one mixed methods study. Design-specific quality assessment tools were used to conduct a critical appraisal of each study to evaluate the type and quality of evidence available regarding nurse presenteeism in high acuity settings. Three different quality assessment tools were used, depending on the type of study, to ensure each study was evaluated using the appropriate tool. Cross-sectional studies were assessed using the 'Critical appraisal of a cross-sectional study' checklist (Center for Evidence Based Management, 2014). The remaining study was assessed using the Critical Appraisal Skills Programme (2017) checklist, and the mixed methods study was assessed using the Mixed Methods Appraisal Tool (MMAT) (Hong et al., 2018).

The study types of the included articles consisted of cross-sectional studies (n=4), a prospective cohort study (n=1) and a mixed methods study (n=1). Regarding job roles, the studies included healthcare workers (n=1), physicians and nurses (n=2), and multidisciplinary team members (n=1), while two studies used nurses alone as their participant group. The majority of studies were conducted in single-site settings (n=4), although two studies were conducted across multiple sites.

Data synthesis

To synthesise results, the studies included in this review were organised into a summary table (*Table 2*). Each study was read in full and then compared to the others. Data were categorised and grouped into consistently occurring themes. A manual method as described by Saldaña (2021) was employed to identify data that appeared to have links. Descriptive conclusions are presented to elucidate what is currently known about nurse presenteeism in high acuity settings. The discussion in this chapter highlights and expands on strengths and weaknesses of the evidence, gaps in the current literature, and how findings from this integrative literature review inform the research questions, methodology and methods of this doctoral research.

Findings

The frequency at which presenteeism occurs was reported in all studies, in some capacity. However, presenteeism was measured in various ways and the definition of presenteeism was not defined in some studies, which may result in a wide variation of results. According to Szymczak et al. (2015, p. 817), 52.0% (n=279) of participants reported 'working sick' once in the past year when asked: 'In the past year, when providing patient care, how frequently did you come to work sick?' Similarly, Jiang et al. (2019) found that when actively surveying 2728 healthcare workers for episodes of acute respiratory illness (ARI), 1036 participants reported ARI symptoms on a scheduled workday. A total of 52.0% (n=539) reported working on every scheduled workday, whereas 94.6% (n=980) reported working on at least 1 day, which aligns with the findings of Szymczak et al. In contrast, Rantanen and Tuominen (2011) found that 37.4% of participants had experienced presenteeism over the previous 4 weeks, when asked if they had attended work despite feeling that they should not have been at work due to health reasons. Participants' mean time at work was 16 hours, and the average loss of working capacity during those hours was 45.4%. The researchers also calculated the cost of presenteeism and found that the average overall monetary cost for nursing presenteeism in the 4-week time frame was €273.75 per person. This was calculated using the 'contingent valuation method' – the hour value obtained using the willingness-to-accept method, multiplied by the perceived average level of reduced work capacity during the previous 4 weeks.

The Work Limitations Questionnaire Japanese version (WLQ-J) was used by Yokota et al. (2019) to look at the relationship between acute or chronic lower back pain and presenteeism in 765 hospital nursing staff. Results show that only chronic lower back pain had a relationship with presenteeism and, therefore, there was no relationship between acute lower back pain and work productivity. Results showed that chronic lower back pain affected time management, mental-interpersonal demands and work output. Further, the Work Limitations Questionnaire Brazilian version was used by Umann et al. (2014) to look at the relationships between stress, coping and presenteeism in nurses caring for critically ill patients. Analysis of the WLQ index scores showed that nurses reported a 3.31% decrease in productivity.

Two studies reported reasons why participants worked while sick (a commonly accepted definition of presenteeism) (Jiang et al., 2019; Szymczak et al., 2015). During an ARI, participants went to work because 'symptoms were mild and felt well enough to work' (69%; n=3623), 'felt miserable but felt obligated to work' (8%; n=420), 'felt well when I left home' (8%; n=422), and 'could not afford to stay home' (3%; n=169) (Jiang et al., 2019, p. 893). Participants were more likely to state that they worked because they could not afford to stay home if they did not have sick leave benefits. Conversely, Szymczak et al. (2015, p. 817) reported that respondents deemed the following reasons important in deciding to work while sick: not wanting to let colleagues down (98.7%; n=521), concerns that not enough staff would be available to care for patients (92.5%; n=494), and not wanting to let patients down (92.5%; n=494).

One study looked at coping in nurses assisting critical and potentially critical patients (Umann et al., 2014), using the Occupational Coping Scale (ECO). This scale includes 29 items related to the way people cope with workplace problems, categories as Control, Dodge and Management of Symptoms. Results showed that the 'control' factor had the highest average score ($\overline{X}$=3.68; SD=0.51). The Control factor was the strategy most widely used by nurses in occupational coping, which shows that nurses in this study were responding to workplace challenges by being intentionally proactive (through both actions and thinking).

Discussion

Overall, this review presents what is currently known about nurse presenteeism in high acuity settings. Although there is a clear gap in evidence on this subject, the available evidence provided preliminary information for the research study described in this thesis.

There are limitations to the existing body of evidence, specifically regarding the definition of presenteeism used and the way presenteeism was measured in different studies. Although two studies reported reasons why participants 'worked while sick' (Jiang et al., 2019; Szymczak et al., 2015), which is a commonly accepted definition of presenteeism, there are limitations to this definition. Presenteeism is most commonly defined as employees who are physically present but

exhibit decreased performance or productivity (Rainbow & Steege, 2017). Presenteeism does not refer exclusively to physical illness, but to a lack of emotional, behavioural or cognitive presence, or engagement, in the work environment (Johns, 2010; Koopman et al., 2002). However, as evidenced by this review, there appears to be little congruence across the research on how presenteeism in nursing is defined. This is supported by Rainbow and Steege (2017) who found that the definition of nurse presenteeism is unclear. This may affect results of presenteeism research as nurses, particularly those working in high acuity settings, are often exposed to illness and injury as part of their job role and may become desensitised. Therefore, they may have a different conceptualisation of presenteeism, and may be inclined to under-report presenteeism with standard measures. Ensuring that the participant population is provided with a clear definition of nurse presenteeism may address this.

Only one study in this review calculated the cost of presenteeism, which is surprising given that a main focus of previous presenteeism research in other industries is reducing costs to organisations. Rantanen and Tuominen (2011) calculated that the average overall monetary cost for nursing presenteeism in the 4-week time frame of their study was €273.75 per person using the 'contingent valuation method'. In 2006, it was found that the economic cost of presenteeism per worker per annum was approximately A$8338 in the health sector and A$8092 in the education sector (Scuffham et al., 2014). Another study found presenteeism in Australia to be a persistent and ongoing problem, costing the economy approximately A$34.1 billion per annum (KPMG, 2011). Undertaking a cost analysis in future research would enable a more accurate indication of the cost of nurse presenteeism in Australia.

In the studies included in this review, presenteeism was not always measured using a rigorous, validated tool. Some studies measured presenteeism using a one-item question (Szymczak et al., 2015), or measured it as the number of hours the subject had been at work despite feeling they should not be due to health reasons (Rantanen & Tuominen, 2011). Further, definitions of working when sick were not clear in some studies (Szymczak et al., 2015), and survey tools were not always reliable and validated (Jiang et al., 2019; Rantanen & Tuominen, 2011; Szymczak et al., 2015). This

is not unique to presenteeism research in nursing as there is a lack of a standard metric used to report presenteeism in other studies (Beaton et al., 2009; Mattke et al., 2007; Schultz et al., 2009). Additionally, when measuring presenteeism, Szymczak et al. (2015) and Yokota et al. (2019) used a 12-month time frame, which may decrease accuracy of results. As the time frame increases, the role of recall bias also increases, which may offset the statistical increase in the rate of presenteeism. For example, 26.3% of participants were found to have experienced presenteeism when using a time frame of 'the last 7 days' (Boles et al., 2004) and up to 88% when using 'ever' time frames (McKevitt et al., 1997). Rantanen and Tuominen (2011) used a 4-week time frame when asking participants if they had experienced presenteeism, which, according to Johns (2009), is the most accurate time frame for participants to report information about their presence and productivity at work. Jiang et al. (2019), however, used online diaries to enable participants to report illnesses and work attendance in near real time, which reduced recall bias. According to Jones and Johnston (2011, p. 172), retrospective data collection may be biased due to 'the influence of the participant's current affective state on autobiographical memory and error-inducing heuristic strategies related to memory'. Collecting data in real time means data are collected closer to the event, in this case when presenteeism is occurring, and are less biased by heuristic, autobiographical memory strategies. Using this data collection method, in addition to reliable and validated survey tools, may reduce recall bias and therefore increase accuracy of results.

Some self-report presenteeism instruments have undergone validity and reliability testing, but the quality of those studies varies. According to a recent systematic review of measurement properties of instruments assessing presenteeism, the presenteeism scales with the strongest level of evidence are the Stanford Presenteeism Scale (SPS-6) (which was used by Silva et al., 2019), the Endicott Work Productivity Scale, and the Health and Work Questionnaire (Ospina et al., 2015). However, Rainbow et al. (2019) showed that the SPS-6 had poor reliability (Cronbach's $\alpha = 0.66$) and therefore may not be suitable for use in the nursing population.

A significant limitation of the reviewed studies is the focus of existing measures on one specific type of presenteeism (i.e. sickness or stress). These items do not consider other reasons for

presenteeism, and do not apply other known risk factors. According to Rainbow et al. (2019), using a broader conceptualisation of nurse presenteeism, through a combination of presenteeism measures, will enable a more comprehensive overview of this issue. Using the Nurses Work Functioning Questionnaire, the Job-Stress-Related Presenteeism Scale, and the Health and Work Questionnaire together would enable a broader and more holistic conceptualisation and measurement of Australian nurse presenteeism in high acuity settings.

Further, the main methodological limitation of the studies in this review is the single source of data, dependent upon the respondents' recall and comprehension of survey items. Only one study used a mixed methods approach to investigate nurse presenteeism. The strength of this study was the breadth and depth of information which the survey data and open-ended responses provided; however, the integration of these types of data was unclear. Using a mixed methods approach with clear integration of data would provide an innovative approach to the investigation of nurse presenteeism in high acuity settings. A mixed methods approach would draw on strengths and minimise the weaknesses of a single method study design (Howe, 1988). Further, using a broader conceptualisation (as mentioned previously) through reliable and validated measures of presenteeism, along with real-time qualitative data collection, would enable accurate and comprehensive investigation of nurse presenteeism in high acuity settings.

There was a lack of evidence regarding the impact, on patients and nurses, of nurse presenteeism in high acuity settings. However, Umann et al. (2014) reported direct and significant correlations between stress and presenteeism. This is thought to occur due to the high demands and high stress involved in nursing in high acuity settings. This, in addition to less control over work activities, are predictors of presenteeism and therefore compound productivity loss (Martinez & Ferreira, 2012). Presenteeism is driven by psychosocial work characteristics, not just the individual health status of an employee (Janssens et al., 2016). Another study showed that nurses with chronic pain have a higher prevalence of depression, with a strong relationship between depression and work productivity (Yokota et al., 2019). This may be because be the presence of chronic lower back pain, along with its associated depressive tendencies and declining cognitive function, might impact

an employee's capacity to work. This impact could affect various aspects of work, such as time management, interpersonal relationships, and overall productivity.

Only one study (Umann et al., 2014) employed a framework to inform the discussion relating to coping and presenteeism; however, no English version of the framework was available (Pinheiro et al., 2003). As there is currently no conceptual framework that includes definitions, causes and potential consequences of presenteeism, development or adaptation of an existing framework will be part of addressing this gap in knowledge. The most widely used framework is Johns' (2010) Dynamic Model of Presenteeism and Absenteeism. This model posits that an employees' work performance is impacted by an event, and this triggers a choice between presenteeism and absenteeism. This model also identifies factors that influence this choice, including work context and individual factors, which may lead to the occurrence of absenteeism or presenteeism. The context in which presenteeism occurs needs to be considered, as there is a distinction between voluntary presenteeism (where individuals work with their employers' support) and involuntary presenteeism (where individuals are pressured to work when ill) (Holland & Collins, 2018). Job attitudes and health can be mediators of personal and work-related factors that lead to presenteeism or absenteeism (Miraglia & Johns, 2016). Adapting this framework to inform research into presenteeism in nurses in high acuity settings, or the development of a framework specifically for this population, could serve as the basis for measuring risk factors, predictors and consequences of presenteeism, and intervention development.

It is important to address the highlighted gaps in evidence, as nurses working in high acuity settings, including intensive care, perioperative and emergency department settings, are exposed to unique, stressful work-related factors. High patient acuity, high levels of responsibility, working with advanced technology, caring for families in crisis and involvement in morally distressing situations are all chronic occupational stressors (Epp, 2012). Nurses working in high acuity settings may be at increased risk of presenteeism due to the demands of work in these environments. The effect and influence of nurse presenteeism in high acuity settings is largely unknown. Understanding

presenteeism and its associations with patient safety and nurse health is critical in ensuring the health and safety of the patient population and nursing workforce.

Limitations

There are several limitations to this integrative review. Human error and potential bias need to be considered as only one person performed the search process and article extraction. Another potential limitation is the terminology of presenteeism. Although every effort was made to ensure a thorough and comprehensive search process, it is possible that different terminology was used in other studies which were therefore not included in this review.

Conclusion

This literature review explored the concept of presenteeism in the nursing workforce by critiquing and synthesising the results of six studies. The main categories of findings from the reviewed studies were the prevalence of presenteeism, reasons for presenteeism and strategies used to cope in high acuity settings. This review highlighted strengths and weaknesses of the evidence and gaps in the current literature. A single source of data collection, unreliable data collection tools and lack of clarity regarding the definition of presenteeism were identified as the main limitations of the evidence. Results of the review indicate a significant lack of research and therefore a gap in knowledge about presenteeism among nurses; presenteeism research involving the wider nursing workforce needs to be examined.

Chapter summary

Chapter 2 presented an integrative review of the literature relating to nurse presenteeism in high acuity settings. The discussion highlighted what is known about this issue, and expanded on strengths and weaknesses of the evidence and gaps in the current literature. Strategies for addressing these gaps in the literature were discussed, and methods that could be used in this research to address these gaps were presented. A broader literature review to comprehensively examine what is known about nurse presenteeism in Australia is presented in Chapter 3.

CHAPTER 3: LITERATURE REVIEW

Painting a picture of presenteeism: a multi-country integrative review

Chapter overview

Chapter 3 presents an integrative review of nurse presenteeism literature. This review aimed to look at the predictors of nurse presenteeism in any setting, in different countries and contexts. This review extracted and critiqued all available relevant evidence on this issue, relating to the general nursing population. A lack of evidence was noted and the resultant gap in knowledge is highlighted in this chapter. Strengths and weaknesses of the review, and recommendations that informed this doctoral research are discussed.

Published paper

This literature review has been published as:

Freeling, M., Rainbow, J. G., & Chamberlain, D. (2020). Painting a picture of nurse presenteeism: A multi-country integrative review. *International Journal of Nursing Studies*, *109*, Article 103659. https://doi.org/10.1016/j.ijnurstu.2020.103659

The published version of this paper is presented in Appendix A.

Introduction

Comprising nearly 50% of the healthcare workforce (WHO, 2020), nurses are at the forefront of patient care (Aiken et al., 2012). Nurses provide patient-centred care, which enhances care outcomes (Calabresi et al., 2019; Charalambous, 2019; Yun & Choi, 2019). However, the capacity of nurses to care for patients in a way that is safe, responsible and holistic is being undermined by presenteeism (Brborovic & Brborovic, 2017; Letvak et al., 2012; Oliveira et al., 2015; Widera et al., 2010). Presenteeism occurs when an employee attends work when physically or mentally unwell (Aronsson et al., 2000; Demerouti et al., 2009; Hensel, 2011). Presenteeism can also occur when

an employee has a compromised level of awareness, responsiveness or emotional, behavioural and/or cognitive engagement (Johns, 2010; Koopman et al., 2002).

Research on presenteeism over the last four decades has focused on industries other than nursing, namely business/management, public health and occupational health (Johns, 2010). This research has explored the cost of presenteeism, definitions of presenteeism, the prevalence of presenteeism across job sectors, and the consequences of presenteeism in different industries. It was previously assumed that attending work meant being productive; however, productivity can actually be lost by employees attending work when they should not (Gosselin et al., 2013). Presenteeism burdens the economy worldwide (Barnes et al., 2008). For example, Professor Cary Cooper, a leading workplace psychologist, argued that presenteeism costs the UK economy twice as much as absence from work (Cooper, 2015). Presenteeism cost the Australian economy, per worker per annum, approximately A$8338 in the health sector and A$8092 in the education sector in 2006 (Scuffham et al., 2014). Another study found presenteeism in Australia to be a persistent and ongoing problem, costing the economy approximately A$34.1 billion per annum (KPMG, 2011). Presenteeism among nurses costs the United States of America approximately US$12 billion per annum (Letvak et al., 2012). Additionally, presenteeism can be harmful to an employee's health. By delaying sick leave, employees may develop more severe illness (Demerouti et al., 2009). Presenteeism can even be life threatening in certain occupations, such as construction (Rye, 2016).

In nursing, much about presenteeism is unknown. Studies have found that presenteeism also has serious consequences for patient outcomes and is more prevalent among nurses than other occupational groups (Aronsson et al., 2000; Rainbow, 2019). There is a high rate of presenteeism among nurses, and this is due to multiple factors (Rainbow & Steege, 2017). Johns (2010) found that hospital cultures that exalt loyalty, teamwork and professional identity can unwittingly encourage presenteeism. Presenteeism is also promoted by difficulty in replacing staff, attitudes that staff hold towards their own health, and the increased efforts required to offset an absence (Aronsson et al., 2000; Elstad & Vabø, 2008; McKevitt et al., 1997; Rainbow, 2019). Further possible causes are the

caring nature of the profession, the suboptimal health of many nurses and intense job demands (Johns, 2010; Rainbow & Steege, 2017).

Presenteeism in nursing can be costly to the economy, to patients and to nurses themselves. Presenteeism has been linked to increased rates of medication errors, patient falls and missed patient care (Rainbow & Steege, 2017). Presenteeism also compromises nurse health and well-being. Most studies only look at one or two of these consequences, so the cumulative impact of nurse presenteeism remains unclear.

Clearly, research on presenteeism focusing specifically on the nursing context is needed. Therefore, the questions we sought to answer in this review were:

1. What is the prevalence and cost of nurse presenteeism around the world?
2. What factors lead to presenteeism?
3. What is the impact of presenteeism on the health of the nursing workforce, and patient care and safety?

Methods

Design

An integrative literature review design was used. This design involves the appraisal of qualitative and quantitative literature to elicit what is known about a specific topic (Souza et al., 2010). The search strategy approach described by Kable et al. (2012) was used to identify articles. The integrative review process described by Souza et al. (2010) was used to guide the design of this review.

Search methods

Following the search approach described by Kable et al. (2012), research questions were created, databases were selected and documented, search limits were determined, inclusion and exclusion criteria were created, search terms and the search process were documented, and articles were assessed for relevance. Selected online databases – 1) Ovid MEDLINE, 2) Cumulative Index to Nursing and Allied Health Literature (CINAHL), 3) Scopus and 4) PsycINFO – were searched for

research regarding presenteeism in the nursing workforce in October of 2018. Individual keywords were used to search the title, abstract, subject headings and body of studies as a focused search process. The search limits and inclusion/exclusion criteria (*Table 3*) were chosen to ensure the studies included in search results were recent and relevant to the research questions. The final search terms used in each database were: Nurs* OR nurse OR nurses OR nursing OR "Registered Nurse" AND "presenteeism" OR sickness presenteeism OR sickness attendance OR work when ill OR work when sick OR work limitations**.** See *Figure 2* for the full search strategy from Ovid MEDLINE. The PRISMA diagram in *Figure 3* documents the outcomes of the search and screen process.

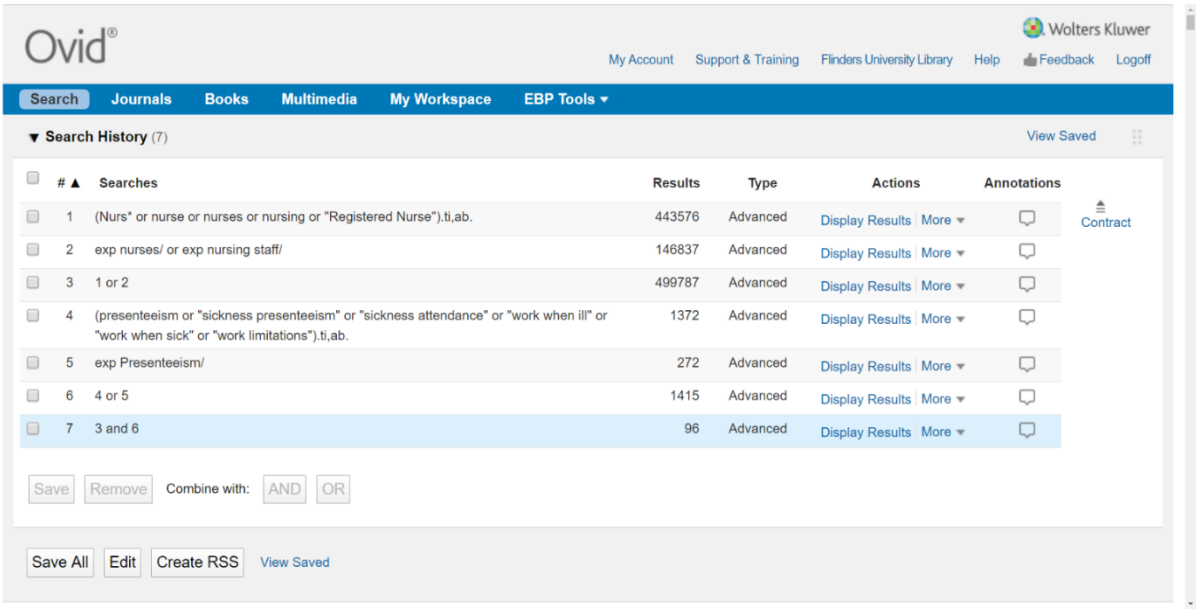
Table 3. Inclusion/exclusion criteria (Painting a picture of presenteeism: a multi-country integrative review)

Category	Inclusion	Exclusion
Population of interest	Studies investigating presenteeism in the nursing workforce in any clinical setting	Fields not relating to nursing such as occupational health research, teaching, informal caregiving, or if nursing healthcare professionals were not included in the sample
Subject of interest	Presenteeism (also known as sickness presenteeism)	Studies which explore other types of productivity including absenteeism and short-term disability
Type of study	Original research	Previously published literature reviews and systematic reviews
Publication language	Articles written in English	
Publication dates	2006 to 2018	Research published before 2006
Publication type	Research published in a peer-reviewed journal	

Screening

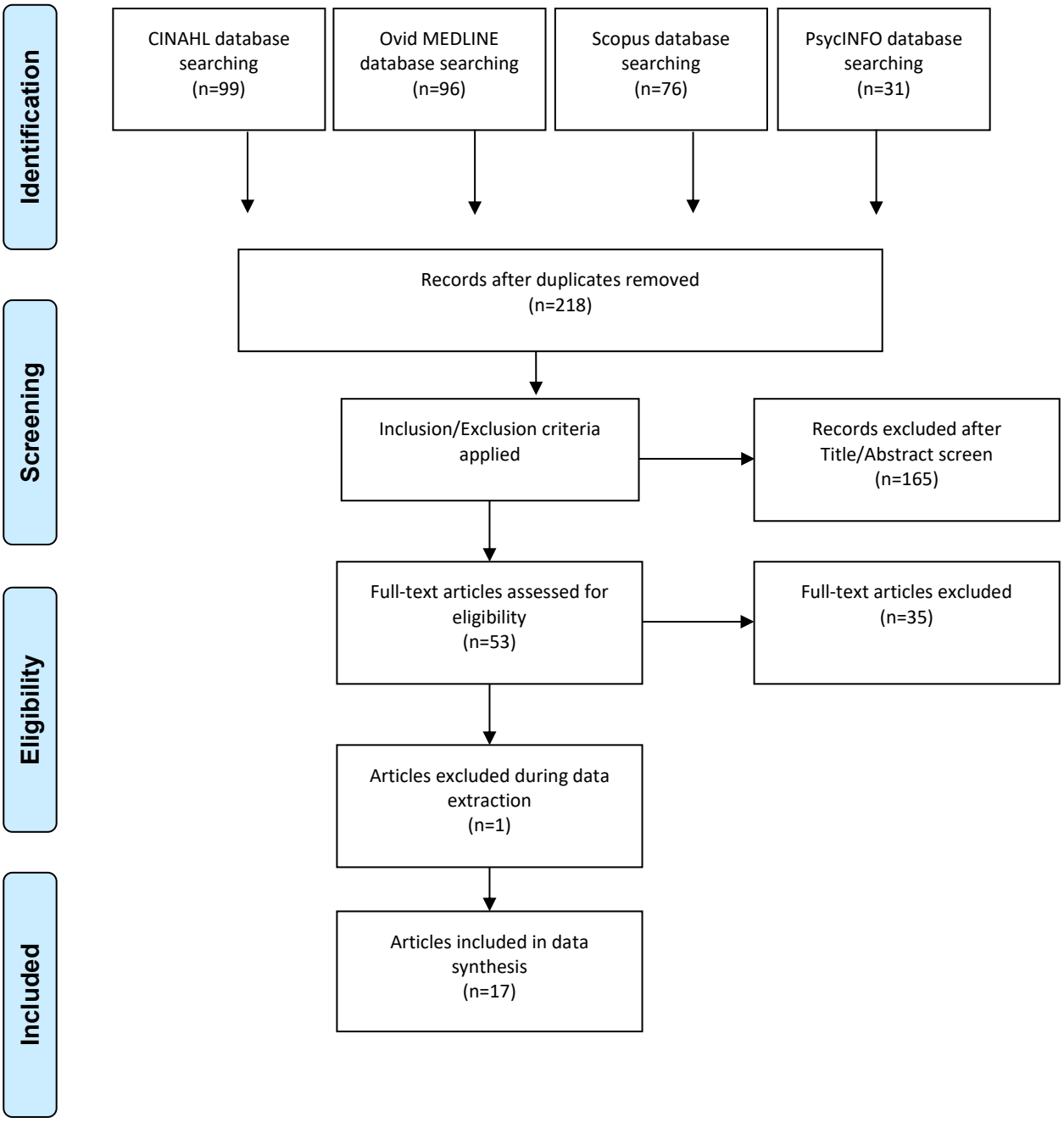
Three hundred and two articles were initially identified in the search. After removing duplicates, titles and then abstracts were screened for relevance and inclusion/exclusion criteria (see PRISMA diagram in *Figure 3*). Articles were excluded at the abstract level mainly because they did not pertain specifically to the nursing workforce or include nurses. Articles were excluded at the full-text level mainly because they explored other types of productivity or work attendance. Eighteen relevant articles were identified after which all articles were read in full. One article was found to be difficult to comprehend due to a poor translation into English, so the decision was made to exclude that article from the review. Thus, 17 studies were selected. These studies' reference lists were manually searched to identify other relevant studies, but none were found.

Figure 2. Search strategy example



(Nurs* or nurse or nurses or nursing or "Registered Nurse").ti,ab. OR exp nurses/ or exp nursing staff/ AND (presenteeism or "sickness presenteeism" or "sickness attendance" or "work when ill" or "work when sick" or "work limitations").ti,ab. OR exp Presenteeism/

Figure 3. PRISMA flow diagram: retrieval of studies for the impact of nurse presenteeism



From: Moher et al. (2009)

Quality assessment and appraisal

A total of 17 studies met the inclusion criteria and were included in this review: 16 quantitative studies and 1 qualitative study. Design-specific quality assessment tools were used to conduct a critical appraisal of each study to evaluate the type and quality of evidence available regarding presenteeism in nursing. Cross-sectional survey studies were assessed using the 'Critical appraisal of a cross-sectional study' checklist (Center for Evidence Based Management, 2014). All other studies were assessed using checklists from the Critical Appraisal Skills Programme (2017). Each study was appraised separately by two readers (MF and JR) and differences in appraisal scores were discussed until consensus was reached. Overall quality appraisal of reviewed studies is shown in *Table 4* and summary information is shown in *Table 5*. No study met all the critical appraisal criteria. The appraisal process highlighted the studies' strengths and weakness. The most common limitation of the studies was the sampling method. Most studies did not include a power calculation and used a convenience sampling strategy within one or two healthcare settings. Also, most studies were cross-sectional rather than longitudinal. Therefore, the studies could not make inferences about a) the broader nursing population, or b) the relationship between presenteeism and other variables over time. With these limitations in mind, the studies had many strengths including their aims, response rates, use of valid and reliable measures, and data analysis.

Data synthesis

To synthesise results, the studies included in this review were systematically read, appraised, organised into main summary detail and, subsequently, organised into a summary table (*Table 5*). A manual method as described by Saldaña (2021) was employed to identify keywords and phrases which appeared to be linked. Data were categorised into consistently occurring categories in the articles. Categories were discussed amongst the authors for consensus. The five final categories that emerged were: 1) the prevalence of presenteeism, 2) the economic cost of presenteeism, 3) presenteeism and related health conditions, 4) presenteeism and nurse well-being, and 5) presenteeism and patient safety (*Figure 4*).

Table 4. Critical appraisal of studies

Study	Critical appraisal results (Y = yes ? = Missing/unclear N = no)										
	Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Q11**
Quantitative											
Al Nuhait et al., 2017	Y	Y	Y	Y	N	Y	Y	N	Y	N	Y
Aysun & Bayram, 2017	Y	Y	Y	Y	Y	N	Y	?	Y	N	Y
Brborovic & Brborovic, 2017	Y	Y	Y	Y	?	N	?	Y	Y	N	Y
Brborovic et al., 2014	Y	Y	Y	Y	N	N	Y	N	Y	N	Y
Brborovic et al., 2016	Y	Y	Y	Y	N	N	Y	Y	Y	N	Y
Dellve et al., 2011	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Demerouti et al., 2009	Y	Y	N	?	?	N	?	Y	Y	N	Y
d'Errico et al., 2013	Y	Y	Y	Y	?	N	?	Y	Y	Y	Y
Karimi et al., 2015	Y	Y	Y	Y	?	N	Y	Y	Y	?	Y
Letvak et al., 2012	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y
Martinez & Ferreira, 2012	Y	Y	Y	Y	Y	N	Y	Y	Y	N	Y
Queiroz-Lima & Serranheira, 2016	Y	Y	Y	Y	Y	N	Y	Y	N	N	Y
Rantanen & Tuominen, 2011	Y	Y	Y	Y	N	N	?	Y	Y	N	Y
Rebmann et al., 2016	Y	Y	Y	Y	?	N	?	N	Y	N	Y
Schneider et al., 2017	Y	Y	Y	Y	?	N	Y	Y	Y	N	Y
Warren et al., 2011	Y	Y	?	Y	?	Y	?	Y	Y	N	Y
Qualitative											
Kim et al., 2016	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N/A*

*Not applicable to qualitative studies

Table 5. Summary of included studies

Author Year Country Title	Study purpose	Methodology or methods	Sample, setting and response rate (if included)	Key findings
Al Nuhait et al., 2017 **Saudi Arabia** Sickness presenteeism among health care providers in an academic tertiary care center in Riyadh	'To identify the reasons for and prevalence of sickness presenteeism and perceptions of the impact of this practice on patient safety among healthcare professionals' (p. 711	Cross-sectional survey study	n=279 Healthcare providers 63% of sample were registered nurses 1 hospital Response rate 70%	-91% of participants stated that working while sick exposed patients to risk; however, the rate of sickness presenteeism during the past year was 74%. -53% of respondents were not aware of the existence of a departmental policy related to sick leave. -Reasons for working while sick: not wanting to burden co-workers (71%), feelings of duty towards patients (67%) and avoiding an increased future workload caused by absence (59%).
Aysun & Bayram, 2017 **Turkey** Determining the level and cost of sickness presenteeism among hospital staff in Turkey	'To determine the associations between sickness presenteeism and socio-demographic factors, perceived health status and health complaints among hospital staff and to calculate the cost burdens and productivity losses attributed to presenteeism' (p. 501)	Cross-sectional survey study	n=951 (n=350 nurses/midwives) Sample of physicians, nurses, midwives and other health staff 2 hospitals Response rate 59.9%	-36.8% of participants were nurses/midwives. 58.4% of participants were female. -Presenteeism was highest among workers who were women, young, nurses/midwives, health personnel and those who describe their general health condition as bad. -Economic cost of presenteeism calculated as TRY315.57 per staff member in a two-week period

Author Year Country Title	Study purpose	Methodology or methods	Sample, setting and response rate (if included)	Key findings
Brborovic & Brborovic, 2017 **Croatia** Patient safety culture shapes presenteeism and absenteeism: a cross-sectional study among Croatian healthcare workers	'To determine whether presenteeism and absenteeism were associated with patient safety culture (PSC) and in what way' (p. 185)	Cross-sectional survey study	n=595 Healthcare workers (150 physicians and 445 nurses) 2 hospitals Response rate 68.95%	-39 of 572 (6.82%) respondents reported presenteeism. Absenteeism was reported for 90 of 542 respondents (16.60%) and the mean loss of hours was almost 8 hours in the previous week. -Presenteeism had a significant positive association with PSC in four dimensions: communication openness, teamwork across hospital units, handoffs and transitions, and overall perceptions of safety. This was contrary to the researchers' hypothesis that high presenteeism should entail low PSC.
Brborovic et al., 2014 **Croatia** Are nurse presenteeism and patient safety culture associated: a cross-sectional study	'To investigate whether nurse presenteeism affected patient safety culture and to look deeper into the characteristics of nurse presenteeism and patient safety culture in Croatia' (p. 149)	Cross-sectional survey study	n=148 Nurses 1 hospital Response rate 76%	-This study found no association between presenteeism and patient safety culture. Participants had overall positive perceptions of safety, but other dimensions were positively rated by less than 65% of participants. The lowest positive response rate was no punitive response to error.
Brborovic et al., 2016 **Croatia** Looking for the possible association between stress, presenteeism and	'To investigate whether nurses' perceived levels of stress are associated to presenteeism and absenteeism' (p. 1)	Cross-sectional survey study	n=147 Nurses 1 hospital Response rate 75.77%	-A total of 20 nurses (15.74%) experienced presenteeism, while 127 did not. Nurses with presenteeism had significantly higher levels of stress (X=21.24, SD=5.62) compared to nurses who had not experienced presenteeism (X=17.35, SD=6.84).

Author Year Country Title	Study purpose	Methodology or methods	Sample, setting and response rate (if included)	Key findings
absenteeism among Croatian nurses: a cross-sectional study				-Although only 15.74% of nurses reported experiencing presenteeism, nurses who had experienced presenteeism had a statistically significant higher Perceived Stress Scale Score (21.42).
Dellve et al., 2011 **Sweden** Work attendance among healthcare workers: prevalence, incentives, and long-term consequences for health and performance	'To compare three measures of work attendance, namely sickness attendance, uninterrupted long-term attendance and balanced attendance, with regard to incentives and requirements as well as effects on health performance among healthcare workers' (p. 1918)	Longitudinal survey study	n=5300 public healthcare employees from random sample of 48,600 workers, from numerous sites 39% of sample were registered nurses Response rate 61%	-About half (44–53%) of male, female, younger, middle-aged and older healthcare professionals reported sickness attendance. The investigated attendance requirements of dutifulness, effort-reward imbalance, high effort, time pressure and a stressful mood at work were positively associated with sickness attendance at baseline. -Sickness attendance was consistently associated with the studied poor health conditions, a high burnout score, sick leave, decreased work ability and decreased performance.
Demerouti et al., 2009 **The Netherlands** Present but sick: a three-wave study on job demands, presenteeism and burnout	'To examine the longitudinal relationships between job demands, burnout (exhaustion and depersonalisation), and presenteeism' (p. 50)	Longitudinal survey study	n=258 Staff nurses Numerous sites	-Overall, about 50% of employees agreed that they had come to work when they were sick at each measurement point. -Longitudinal analysis revealed that presenteeism leads to more exhaustion in a shorter time lag (i.e. 6 months), and exhaustion leads to increased presenteeism over time.

Author Year Country Title	Study purpose	Methodology or methods	Sample, setting and response rate (if included)	Key findings
				-As hypothesised, depersonalisation does not lead to more presenteeism over time.
d'Errico et al., 2013 **Italy** Low back pain and associated presenteeism among hospital nursing staff	'To assess prevalence and risk factors of presenteeism due to lower back pain (LBP) in nursing staff' (p. 276)	Cross-sectional survey study	n=174 Female nurses 1 hospital Response rate 91%	-The overall prevalence of presenteeism due to LBP (went to work at least 1 day in the previous year despite LBP) in the sample was 58.2%. Presenteeism was lower among workers affected by chronic LBP (55.9%) compared with those reporting acute episodes of LBP or having taken drugs or consulted a physician or therapist for LBP in the previous year (61.9%), although this difference was not statistically significant.
Karimi et al., 2015 **Australia** The effects of emotional intelligence and stress-related presenteeism on nurses' well-being	'To examine the direct and moderating effects of emotional intelligence on the presenteeism and well-being relationship' (p. 296)	Cross-sectional survey study	n=312 Community registered nurses Response rate 41%	-Emotional intelligence was positively and significantly related to well-being which suggests that registered nurses with a higher level of emotional intelligence were more likely to experience higher levels of well-being. The registered nurses who were more likely to engage in presenteeism behaviour were found to be less likely to experience positive well-being.
Kim et al., 2016 **South Korea** Sickness experiences of Korean registered nurses at work: a qualitative study on presenteeism	'To explore and describe presenteeism experiences among Registered Nurses in South Korea' (p. 32)	Focus group interviews Constructivist grounded theory	n=20 Registered nurses 3 focus groups 1 hospital	-All participants had experiences of presenteeism. A personal sense of responsibility or external pressure causes presenteeism. -A sick nurse coming to work but getting no consideration from her boss or colleagues leads to loss of the nursing spirit and nursing manpower. The interviewees in a bad

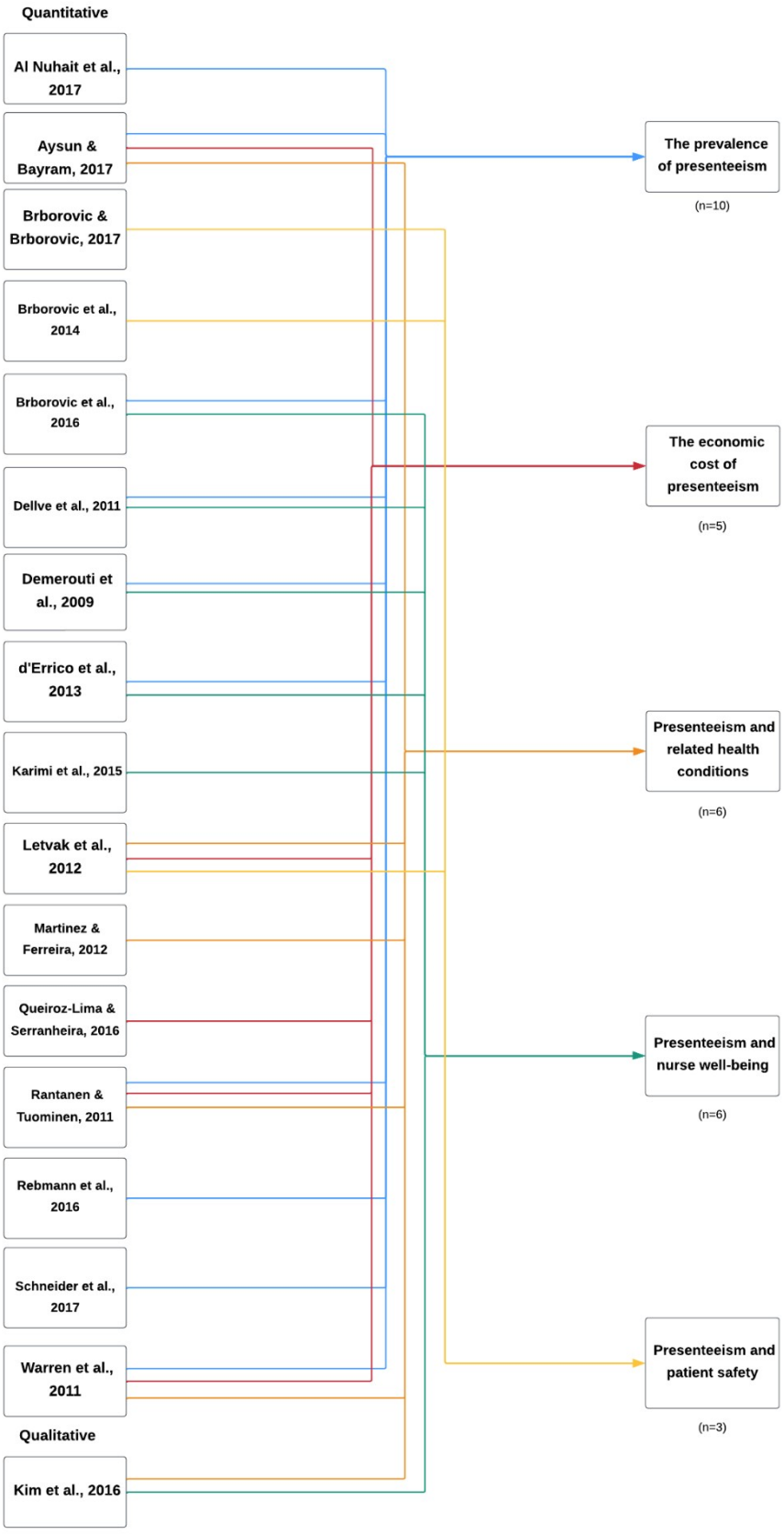
Author Year Country Title	Study purpose	Methodology or methods	Sample, setting and response rate (if included)	Key findings
				condition came to work due to their own sense of responsibility or implicit pressure from other nursing staff.
Letvak et al., 2012 **United States of America** Nurses' presenteeism and its effects on self-reported quality of care and costs	'To investigate the extent to which musculoskeletal pain or depression (or both) in Registered Nurses affects their work productivity and self-reported quality of care and considered the associated costs' (p. 31)	Cross-sectional survey study	n=1171 Registered nurses Numerous sites Response rate 47%	-Results show that both pain and depression were each significantly associated with presenteeism (P<0.001). There was no evidence of an interaction between pain and depression. Presenteeism was found to be significantly associated with patient falls (p=0.004; β coefficient = 0.1680). Therefore, presenteeism was significantly associated with patient falls, medication errors and overall self-reported quality of care. -Calculations indicate that nurse presenteeism in hospitals is raising healthcare costs, with estimated US costs of about $2 billion annually from increased falls and medication errors alone.
Martinez & Ferreira, 2012 **Portugal** Sick at work: presenteeism among nurses in a Portuguese public hospital	'To describe and understand the major causes of presenteeism among nurses' (p. 300)	Cross-sectional survey study	n=296 Nurses 1 hospital Response rate 49.3%	-Results demonstrate that there is no gender difference regarding both the mean days per year affected by presenteeism and the health condition index. This study also found that perceived health status is negatively correlated with presenteeism. -The major psychological causes of presenteeism among nurses in this study was stress (33.9%) and anxiety (28.5%). Physically, lower back pain (46.1%) and breath infections (41.4%) were the most common conditions causing presenteeism.

Author Year Country Title	Study purpose	Methodology or methods	Sample, setting and response rate (if included)	Key findings
Queiroz-Lima & Serranheira, 2016 **Portugal** Absenteeism and presenteeism costs from occupational accidents with WRMSDs in a Portuguese hospital	'To evaluate the impact (cost) of WRMSDs (work-related musculoskeletal disorders) for accidents involving nurses and nurses' aides in a small Portuguese hospital' (p. 27)	Cross-sectional survey study	n=50 Nurses and nurses' aides 1 hospital	-Both the nurses' aides and the nurses had higher 'avoided distraction' mean scores (2.03; 2.63, respectively) compared with the 'complete work' mean scores (1.87 to 1.93). Nurses' aides had higher levels of presenteeism than nurses in both dimensions. -Regarding presenteeism, results showed an average loss of 19.56% productivity per working day. -The total cost of lost productivity for work-related musculoskeletal disorders due to work accidents during the period 2009–2013 was estimated to be around €16,147.85 for the nurses' and €16,011.00 for nurses' aides (calculated using the formulas proposed by Mitchell and Bates).
Rantanen & Tuominen, 2011 **Finland** Relative magnitude of presenteeism and absenteeism and work-related factors affecting them among health care professionals	'To examine the extent and relative value of presenteeism and absenteeism and work-related factors affecting them among health care professionals' (p. 225)	Cross-sectional survey study	n=171 (137 nurses and 32 physicians) 3 hospitals Response rate 62%	-37.4% of respondents had experienced presenteeism during the preceding 4 weeks. The mean time at work when sick was 16.0 hours and their estimated average loss of working capacity during those hours was 45.4%. -The average overall monetary value of presenteeism for the 4-week period was €273.75 per person, whereas, surprisingly, the overall monetary value of absence due to health reasons was €373.87 per person. Therefore, presenteeism had significant economic value, although not as significant as absenteeism.

Author Year Country Title	Study purpose	Methodology or methods	Sample, setting and response rate (if included)	Key findings
Rebmann et al., 2016 **United States of America** Presenteeism attitudes and behavior among Missouri kindergarten to twelfth grade (K–12) school nurses	'To identify the extent to which Missouri school nurses engage in presenteeism related to ILI (influenza-like illness), their attitudes regarding this behavior, and predictors of reporting to work while ill' (p. 408)	Cross-sectional survey study	n=133 School nurses Multiple sites Response rate 33.6%	-Almost half (42.1%) of participants reported that they had worked while ill with ILI (i.e. engaged in presenteeism) at least once in the past 3 years. Nurses were more likely to exhibit presenteeism if they agreed that they would work while they had a mild illness or when they reported that they felt pressure from colleagues or supervisors to work while ill. Perceived pressure from co-workers or a supervisor to continue working was the strongest predictor of school nurse presenteeism.
Schneider et al., 2017 **Germany** Job demands, job resources, and behavior in times of sickness: an analysis across German nursing homes	'To analyze the effect of job demands and job resources on absenteeism, presenteeism, and the tendency to choose one behavior (being absent or being present in times of sickness) rather than the other over the last 12 months' (p. 338)	Cross-sectional survey study	n=212 Nurses working in nursing homes 15 nursing homes Response rate 48.6%	-Higher prevalence rate of presenteeism (81%) than absenteeism (72%). 50% of respondents said that presenteeism occurs more than absenteeism in times of sickness. Excessive cognitive demands do not significantly affect absenteeism or presenteeism frequencies, or the tendency to choose one over the other. Role overload significantly increases both absenteeism and presenteeism frequencies.
Warren et al., 2011 **United States of America**	'To describe presenteeism, its cost burden, and comparative and interactive effects of	Cross-sectional survey study	Nurses (n=112) and pharmacists (n=114) Multiple sites Response rate 85.93%	-The prevalence of presenteeism in the workforce of 226 nurses and pharmacists was more than half of the workforce at 52.65%. Of the 199 participants who reported presenteeism, larger percentages of pharmacists (55.26%) than nurses (50%) reported presenteeism, but differences

Author Year Country Title	Study purpose	Methodology or methods	Sample, setting and response rate (if included)	Key findings
Cost burden of the presenteeism health outcome: diverse workforce of nurses and pharmacists	race/ethnicity in nurses and pharmacists' (p. 90)			across profession or by racial/ethnic group were not statistically significant. The mean productivity decrement for both professions was 13.2%. -The annual cost per employee with presenteeism was estimated to be US$22,237 – more than $2.6 million annually for this workforce.

Figure 4. Articles and identified themes



Findings

The prevalence of presenteeism

Of the studies in this review, 10 gave rates of presenteeism for their participant sample (Al Nuhait et al., 2017; Aysun & Bayram, 2017; Brborovic et al., 2016; d'Errico et al., 2013; Dellve et al., 2011; Demerouti et al., 2009; Rantanen & Tuominen, 2011; Rebmann et al., 2016; Schneider et al., 2017; Warren et al., 2011). These studies included an international sample of nurses from Saudi Arabia, Turkey, Croatia, Italy, Sweden, the Netherlands, Finland, the United States of America and Germany. The prevalence of nurse presenteeism was a strong focus among studies, but comparing prevalence across studies was difficult because of differences in the definition of presenteeism operationalised, the recall time frame and the measurement tool. These operationalised definitions of presenteeism included: 'going to work despite feeling that sick leave should have been taken due to state of health' and 'attending work with a specific health condition' (e.g. low back pain). Measures of presenteeism included: a one-item measure of attendance at work when sick, the Stanford Presenteeism Scale, the World Health Organization's Health and Work Performance Questionnaire, and the Job-Sress-Related-Presenteeism Scale. Self-report time frames varied from 2 weeks to 12 months. Rates varied from 15.74% (n=147) (Brborovic et al., 2016) to 86.96% (n=951) (Dellve et al., 2011) (See *Table 5* for presenteeism rates in each study).

The economic cost of presenteeism

Only five of the studies in this review measured the economic cost of presenteeism (Aysun & Bayram, 2017; Letvak et al., 2012; Queiroz-Lima & Serranheira, 2016; Rantanen & Tuominen, 2011; Warren et al., 2011). These studies were conducted in Turkey, United States of America, Portugal and Finland. Various methods of calculation were used, and there were differences in the time frames in which participants were asked to report presenteeism behaviours. These factors resulted in broad variances in cost (See *Table 5*). The diversity is made evident by these two examples: TRY315.57 per staff member in a two-week period (Aysun & Bayram, 2017) to €32,158.86 annually (for both nurses' and nurses' aides combined) (Queiroz-Lima & Serranheira, 2016).

The most common method of calculating the cost of presenteeism is the human capital approach, which expresses work loss as the product of missed workdays multiplied by the worker's salary (Mattke et al., 2007). This approach, used by Warren et al. (2011) and Letvak et al. (2012), led to cost estimates of US$22,237 per employee who reported presenteeism in a sample of pharmacists and registered nurses, and US$14,439 per nurse, respectively. Letvak et al. (2012) also estimated the costs concerning nurse presenteeism and the relationship to patient falls and medication errors. The increased falls and medication errors reported in this study are expected to cost US$1346 per registered nurse annually, equating to a total cost of just below $2 billion annually in the United States of America.

Presenteeism and related health conditions

Six studies found that presenteeism in nursing is associated with a variety of health conditions and related symptoms (Aysun & Bayram, 2017; Kim et al., 2016; Letvak et al., 2012; Martinez & Ferreira, 2012; Rantanen & Tuominen, 2011; Warren et al., 2011). These studies included samples of nurses from Turkey, South Korea, the United States of America, Portugal and Finland. As expected, results consistently showed that participants with pre-existing mental, physical and chronic health conditions had higher rates of presenteeism. Rantanen and Tuominen (2011) found that having experienced acute disease(s) during the last 4 weeks had a statistically insignificant effect on the extent of experienced presenteeism ($p<0.654$).

Mental health conditions linked to presenteeism include anxiety (28.5%) and depression (8.8%) (Martinez & Ferreira, 2012). Interestingly, although depression was the least prevalent psychological disease (8.8%) in Martinez and Ferreira (2012), it affected workers for the most days per year (mean = 84.0; standard deviation = 73.3). Comparatively, Warren et al. (2011) found that depression had the highest prevalence and strongest association ($p<0.0001$) with presenteeism.

The physical health conditions strongly associated with presenteeism were fatigue, musculoskeletal issues or cold/allergy symptoms (Aysun & Bayram, 2017; Letvak et al., 2012; Warren et al., 2011). In the single qualitative study included in this review, Korean registered nurses described their experiences of going to work while sick (Kim et al., 2016). In one instance, an

interviewee described coming to work despite experiencing hip joint pain too severe to walk. Another participant described presenting for work in the operating room despite their leg being in a cast. Participants described that the reason for their presenteeism was the belief of having to fulfil their duty to work, regardless of sickness. A lack of care and consideration from colleagues may have also contributed.

Presenteeism and nurse health and well-being

Several studies found that presenteeism is associated with risks to nurse well-being, through exhaustion and burnout (Dellve et al., 2011; Demerouti et al., 2009; d'Errico et al., 2013; Kim et al., 2016), stress (Brborovic et al., 2016) and general well-being (Karimi et al., 2015). Studies in this category were conducted in Italy, Sweden, the Netherlands, South Korea, Croatia and Australia. Nurse presenteeism and well-being have a complex relationship. For example, some studies found that presenteeism can decrease well-being which, in turn, can increase presenteeism levels. Demerouti et al.'s (2009) three-wave study, conducted over one-and-a-half years, showed that presenteeism leads to more exhaustion in a shorter time period (6 months) and that exhaustion leads to increased presenteeism over a longer time period. A 2-year cohort study showed that presenteeism was consistently associated with poor health conditions and burnout (Dellve et al., 2011). This is supported by Demerouti et al. (2009), who showed that presenteeism may have a detrimental effect on the well-being of nurses.

The direct and moderating effects of emotional intelligence on the work-stress-related presenteeism and well-being relationship was measured by Karimi et al. (2015); registered nurses with a higher level of emotional intelligence were more likely to experience higher levels of well-being. Those participants who were more likely to engage in presenteeism were less likely to experience positive well-being ($p<0.01$). Furthermore, Dellve et al. (2011) found that presenteeism was associated with stress not only at work, but even during leisure time. Since the relationship between presenteeism and nurse health and well-being is so complex, more exploration is clearly needed.

Presenteeism and patient safety

Several studies show links between nurses' presenteeism and a decline in patient care. Specifically, presenteeism was associated with higher rates of patient falls and medication errors, and patient safety culture (Brborovic & Brborovic, 2017; Brborovic et al., 2014; Letvak et al., 2012). Patient safety culture is represented across four dimensions: communication openness (p=0.024), teamwork across hospital units (p=0.001), hand-offs and transitions (p=0.046), and overall perceptions of safety (p=0.025) (Brborovic & Brborovic, 2017). Interestingly, Brborovic and Brborovic (2017) found that patient safety culture shapes absenteeism and presenteeism: participants with higher patient safety culture scores are more likely to exhibit presenteeism, while people with lower patient safety culture scores are more likely to exhibit absenteeism.

Discussion

In this integrative review, we sought to examine the impact of presenteeism on the global nursing workforce, organisational operations, and patient care and safety. After appraising 17 articles for quality, we identified five final categories: 1) the prevalence of presenteeism, 2) the economic cost of presenteeism, 3) presenteeism and related health conditions, 4) presenteeism and nurse well-being, and 5) presenteeism and patient safety. Our findings indicate that presenteeism is prevalent in the nursing workforce in many countries; that it is attributable to multiple health conditions and stress; and that it is tied to multiple consequences for the economy, patient safety and nurse well-being.

Compared to other industries, the nursing workforce experiences higher rates of presenteeism across different presenteeism measures (Aronsson et al., 2000; Rainbow et al., 2019). One pivotal study examining presenteeism across the Swedish workforce found that 37% of respondents reported attending work while sick more than once (Aronsson et al., 2000). Occupations in the caring, helping and teaching categories were most prone to presenteeism (Aronsson et al., 2000). Of the nine occupational groups in the care and welfare sector, the highest rates of presenteeism were reported by nursing home aides (65%), followed by nursing and midwifery professionals (49%). In comparison, Schmidt et al. (2019) reported that 25% of pharmacists self-reported 4–5 days of

presenteeism during a 12-month period. In a study of presenteeism in the academic workforce, most respondents (88%) reported working while sick at least ‘sometimes’. Prison workers commonly reported working while sick at least ‘sometimes’ (84%) with more than half (53%) doing so ‘always’ (Kinman et al., 2019). In the hospitality industry, 38.3% of the total sample were presentees in their work (Arjona-Fuentes et al., 2019). It is difficult to compare prevalence of presenteeism between nursing and other professions and occupations as the measurement tools and operationalised definitions of presenteeism vary widely. This review reported prevalence rates among nurses that varied from 15.74% (n=147) (Brborovic et al., 2016) to 86.96% (n=951) (Dellve et al., 2011). Other occupations and professions report a wide variation in prevalence, suggesting that presenteeism may be more associated with the type of occupational demands, workplace and organisational culture, and related stress more so than the occupation or profession itself.

Across occupations, workers with significant health conditions have higher rates of absenteeism and presenteeism. In nursing, the reluctance of nurses to take time off when they are sick stems from a variety of reasons including job role, social status, job and financial security, and patient care demands. Furthermore, due to variation in nursing expertise, it is often difficult to find a qualified replacement – many workers would rather work through their illness rather than pass off their work to co-workers (Webster et al., 2019). Burnout is high, and illness- and stress-related presenteeism is found not only in nurses but in all healthcare professionals (Ruhle & Süß, 2019). Suboptimal mental and physical health has been reported by 54% of nurses, with over 60% reporting using poor stress-coping mechanisms (Jordan et al., 2016; Melnyk et al., 2018). Nurses also suffer frequent chronic joint and back pain, a condition shared by office workers and hospitality providers (Arjona-Fuentes et al., 2019). Also, in nursing, the influence of organisational presenteeism culture is unique: upper management ubiquitously communicates a positive attitude towards presenteeism. Examples include unofficial consequences, unspoken requirements for advancement, or even the risk of losing one’s job, and these become perceived and shared organisational values that are prevalent in nursing (Jourdain & Chênevert, 2015).

Only five of the studies in this review measured the cost of presenteeism. Various methods of calculation were used. The most common method for calculating costs among articles reviewed was the human capital approach, which estimates either salary conversion or productivity loss at the business or firm level (Schultz et al., 2009). However, level of income may not adequately represent the marginal value of time to the subjects, as individuals place different values on hours of work and leisure time. Additionally, studies in the nursing context have mostly looked at presenteeism resulting from specific medical diagnoses (Letvak et al., 2012) or looked at presenteeism in more than one healthcare profession (Warren et al., 2011). The financial case of presenteeism in the nursing workforce was not convincingly made in any of the reviewed studies. Future research on presenteeism in the nursing workforce, with a cost analysis in addition to prevalence, is advised in order to highlight potential financial savings. There are still issues with the way the cost of presenteeism is calculated. For example, if an employee is only 60% productive, it does not necessarily translate to a loss of 40% of the value of that employee to the organisation. The current method used converts the percent decrement in productivity into hours per week that an average individual is unproductive; then, that number is multiplied by the average hourly wage. Along with asking participants to self-report presenteeism, it is unclear whether those calculations are accurate and whether the employees' productivity is 0% during those hours (Schultz & Edington, 2007). This highlights some of the limitations we identified in conducting this review. Overall, three limitations of current research to be addressed in the future are: 1) lack of congruence in presenteeism definition, 2) differences in presenteeism measures and time frames, and 3) methodological limitation of cross-sectional self-report surveys.

With the large amount of existing research on presenteeism in the general workforce, it is questionable why there are such varied definitions of presenteeism in nursing research. Presenteeism is most commonly defined as employees who are physically present, but exhibit decreased performance or productivity, and is usually attributed to illness (Rainbow & Steege, 2017). However, there appears to be little congruence across the research on how presenteeism in nursing is defined. This finding is supported by Rainbow and Steege (2017) who undertook a concept

analysis and found that the definition of presenteeism in the nursing workforce lacks clarity. The following holistic definition of presenteeism was proposed:

> *Physical presence at work when one should not be due to one's health and wellbeing, environment, lack of work–life balance, or sense of professional identity or obligation (Rainbow & Steege, 2017, p. 620).*

The operationalisation of this definition (which includes antecedents of presenteeism) in future research may assist in addressing presenteeism in the nursing workforce more comprehensively. This aligns with the studies we read in this review, which operationalise stress- and sickness-related definitions of presenteeism (Al Nuhait et al., 2017; Aysun & Bayram, 2017; Demerouti et al., 2009; d'Errico et al., 2013; Schneider et al., 2017). We know that there is a relationship between stress and illness, so defining presenteeism more holistically in future studies and including measures of sickness and stress will increase our understanding of the true prevalence and consequences of presenteeism.

Another significant finding of this review is that the time frame and presenteeism measure used in the studies influences the occurrence and magnitude of presenteeism that is reported. This is a weakness of many of the studies examined. The longer the time frame, the more participants can be expected to have experienced presenteeism. For example, 26.3% of participants were found to have experienced presenteeism when using 'the last 7 days' (Boles et al., 2004) and up to 88% when using 'ever' time frames (McKevitt et al., 1997). As the time frame increases, however, the recall bias also increases. Measures used by studies in this review varied from a one-item measure of attendance at work when sick; to the Stanford Presenteeism Scale; the World Health Organization's Health and Work Performance Questionnaire; and the Job-Stress-Related-Presenteeism Scale. While these measures paint a picture of presenteeism prevalence, we currently lack an understanding of the level at which presenteeism is associated with negative consequences. For example, a nurse may be at work with allergy or cold symptoms that may be nuisance, but not be substantially impacting his/her work performance. There is a difference between an employee performing at 90% versus 20% and the related impact for healthcare costs, patient care, and nurse health and well-being. This also is key in thinking of future interventions to address presenteeism

and who to target for those interventions and what the interventions should be. In order to understand the prevalence and costs associated with presenteeism, improvements to presenteeism measurements that consider the possible thresholds and related consequences are needed. As a first step, standardisation of measures used around the world would greatly improve our understanding of presenteeism prevalence in different contexts.

One main methodological limitation of the reviewed studies is the single source of data, which depends upon the respondents' recall and comprehension of survey items. The strongest study designs are those with established and well-described instruments, as well as the prospective studies with reasonable follow-up periods (see *Table 5*). Many of the self-report presenteeism instruments have undergone validity and reliability testing, but the quality of those studies varies. According to a recent systematic review, the presenteeism scales with the strongest level of evidence were the Stanford Presenteeism Scale, the Endicott Work Productivity Scale, and the Health and Work Questionnaire (Ospina et al., 2015). The development of a short, reliable, comprehensive tool that would measure all aspects of presenteeism (e.g. low job performance and sickness presenteeism) in the healthcare industry should be a focus of future research. Furthermore, due to the limitations of self-reporting presenteeism, methods of real-time data collection may lead to more reliable data.

Strengths and limitations

A strength of this integrative review is the breadth of countries covered, allowing for comparison of nurse presenteeism from different contexts. Studies were from Saudi Arabia, Turkey, Croatia, Sweden, the Netherlands, Italy, Australia, the United States of America, Portugal, Finland, Croatia and South Korea (*Table 5*). Reviewing these studies allowed for a global view of nurse presenteeism, identifying the similarities and differences in prevalence, cost and impact.

To be included in this review, articles needed to investigate presenteeism in the nursing workforce. The definition of presenteeism is broad and it is possible that articles that used related terms (such as decreased workplace productivity, working while sick) were excluded. It is also

possible that excluding articles published in languages other than English and prior to 2006 may have missed some articles that would have added to this review. However, we conducted a thorough search that yielded 218 articles for consideration and went through the reference lists of included articles to assess for possible missing articles.

Conclusion

This integrative review explored the concept of presenteeism in the nursing workforce through appraising, synthesising and critiquing the individual and collective results of 17 key studies. The categories identified were the prevalence of presenteeism, the economic cost of presenteeism, presenteeism and related health conditions, presenteeism and nurse well-being, and presenteeism and patient safety. This review highlights the strengths and weaknesses and identifies gaps in the current literature. Although most research on presenteeism in the nursing workforce uses a cross-sectional design, methods are diverse in terms of measurements and definitions of presenteeism. Limited evidence exists regarding the relationship between stress-related and sickness presenteeism and well-being in nursing, nationally and internationally. While multiple articles estimated the cost of nurse presenteeism, we lack an understanding of all the related cost consequences that may impact cost estimates. To improve nursing practice, further research is needed to investigate the link between presenteeism, nurse well-being and quality of patient care. Further research regarding nurse presenteeism in Australian healthcare settings is needed, as currently evidence in this context is lacking. Predictors of presenteeism, and the impact on Australian nurses, needs to be investigated.

Update of the evidence

Chapters 2 and 3 have identified gaps in current knowledge, highlighting areas that require further investigation, and providing a comprehensive overview of nurse presenteeism in high acuity settings. Since the research landscape is constantly evolving, there have been advances to the literature in this field. Since the publication of the literature review in this chapter, a number of studies have been published that contribute to what is known about nurse presenteeism. Unsurprisingly, this area of research is expanding rapidly, particularly since the onset of the COVID-19 pandemic. A wide range of predictors of presenteeism have since been, and continue to be, tested, in addition to qualitative research exploring nurses' experiences of presenteeism.

Fiorini et al. (2020) used a cross-sectional survey to investigate factors associated with presenteeism in a population of nurses working with older adults. This study determined that presenteeism was often perceived as harmful to health and to impact work performance negatively. An SPS-6 (Stanford Presenteeism Scale 6-item version) score of 17.50 (SD=4.22) was obtained in terms of prevalence. Older age and management support were associated with better work performance. Similarly, Gillet et al. (2021) used a cross-sectional survey to investigate how workaholism and presenteeism affect nurses' functioning. Findings showed that workaholism and presenteeism were positively related to work–family conflicts. Work–family conflicts were associated with lower levels of work performance and family life satisfaction. The positive relationship between workaholism and work–family conflicts was stronger for nurses who had higher levels of presenteeism.

Stress and workload, and their relationship to presenteeism, are also new areas of research. Gillet et al. (2020) used a cross-sectional survey to investigate the indirect effects of emotional dissonance and workload on presenteeism and emotional exhaustion, through sleep quality and relaxation. They found that emotional dissonance and workload were negatively related to sleep quality and relaxation for nurses. Emotional dissonance had significant positive effects on presenteeism. Sleep quality and relaxation were negatively related to presenteeism and emotional exhaustion. Sleep quality mediated the effects of emotional dissonance and workload on presenteeism and emotional exhaustion.

Jiang et al. (2021) used a cross-sectional survey to investigate the effect of occupational stress on presenteeism among nurses, through a moderated mediation model (mediating role of public service motivation and moderating role of health). They found both challenge stress and hindrance stress positively predicted presenteeism. Min et al. (2021) used a cross-sectional survey to investigate the prevalence of sickness presenteeism and explore related factors among shift- and non-shift-working nurses in Korea. Results showed 21.8% of participants reported experiencing sickness presenteeism. Nurses who were shift workers experienced more sickness presenteeism

than non-shift-working nurses. Sickness presenteeism was reported more by nurses who did not have rest breaks, who experienced sleep disturbance and who experienced health problems.

Mosteiro-Diaz et al. (2020) used a cross-sectional survey to compare presenteeism levels among nurses and investigate the relationship between presenteeism and various sociodemographic and professional characteristics. The total mean SPS-6 score for the sample was 20.23 (SD=4.44). Mean of the Likert scale was 3.36 (SD=0.74). Participants with less professional experience presented a lower level of presenteeism than participants with more experience. From a feminist perspective, Jung et al. (2020) used a cross-sectional survey to examine the relationship between emotional labour and presenteeism in nurses in South Korea. Results showed that female nurses who suppress their emotions in the workplace had a higher risk for presenteeism than female nurses who rarely hide their emotions in the workplace.

From a qualitative approach, Andres et al. (2021) undertook a qualitative focus group study exploring nurses' decision-making process relating to presenteeism. They found that consideration for colleagues, organisational factors such as workload, and professional identity influenced participant's presenteeism. Rainbow (2019) analysed free responses to a cross-sectional survey to describe factors leading to and consequences of nurse presenteeism. Rainbow found that illness, staffing, availability of leave time, patients, financial constraints and guilt were considered by nurses when deciding whether to call in sick to work, or to attend work while not fully present. Negative consequences of presenteeism were highlighted, including decreased mental acuity and attitude leading to decreased written and verbal communication, spread of illness, and deterioration of unit culture, patient care, and nurse health and well-being.

The studies discussed above continue to demonstrate the importance of exploring nurse presenteeism and the various predictors of presenteeism, along with nurses' experiences in this area. New predictors of nurse presenteeism that have emerged include emotional dissonance and work–family conflict. While this is an ever-expanding field of research, there continues to be a gap in knowledge regarding nurse presenteeism and related issues facing high acuity nurses specifically. Further, while there have been advances in qualitative nurse presenteeism research, there is still a

significant gap in knowledge regarding nurse presenteeism, nurse health and the conflict with caring responsibilities.

Chapter summary

Chapter 3 presented an integrative review of the wider literature relating to nurse presenteeism. This review aimed to look at the predictors of nurse presenteeism in any setting, in different countries and contexts. This chapter highlights what is known about this issue and expands on strengths and weaknesses of the evidence and gaps in the current literature. There is a clear gap in the existing body of literature regarding nurse presenteeism in Australian high acuity settings and this forms the basis for the research questions, methodology and methods, outlined in Chapter 4.

CHAPTER 4: METHODOLOGY AND METHODS

Chapter overview

In Chapters 2 and 3, the knowledge gaps relating to nurse presenteeism in the current body of research were explored. These chapters argue the need for further research to explore nurse presenteeism in high acuity settings, from an Australian perspective. This chapter presents the rationale for the research methodology and approach used for the study in this thesis. The research questions and methods are framed within a feminist pragmatist perspective.

A discussion of the relevance of this research to men and families will be included in this chapter. However, the complex discussion around the barriers facing men supporting feminism in nursing will not be included. While feminist theory has historically focused on the experiences and perspectives of women, feminist pragmatism seeks to create inclusive and collaborative research approaches that recognise and respect the diverse experiences of all individuals, inclusive of all genders. This research does not delve into gender identity, as this is out of the scope of this research.

What is pragmatism?

Pragmatism is a philosophical movement founded in America in the 1870s by Charles Sanders Peirce (1839–1914) (Nagy, 1976; Thayer, 1981). Peirce developed pragmatism in opposition to idealism, using knowledge of science, logic and philosophy (Ormerod, 2006). Pragmatism was created as a philosophy of meaning, a method for testing the effects of beliefs as guides for action. While it was Pierce who first defined it, his friend and colleague William James (1842–1910) popularised and interpreted pragmatism as a way of thinking. Throughout his life, James was occupied with the combination of scientific rigour and humanistic learning and the issue of how to reconcile them. His fascination with how the mind works led James to consider the wider question of how rational behaviour in a broad sense may be explained. This question led James to become a philosopher of pragmatism and a revolutionary experimental psychologist, developing and adding depth to Pierce's original philosophy (Lawlor, 2005). James also referred repeatedly to pragmatists John Dewey and Ferdinand Canning Scott Schiller throughout his works.

James also explored pragmatism in relation to exploring truth in religion and posited that a philosophy was called for which upheld empiricist values but found room for faith. James was motivated by a desire to reconcile the claims of metaphysics with the advances of science (Lawlor, 2005). He desired answers to philosophical questions that were accessible to average educated individuals, less precise but more accessible than Pierce's writings. Pragmatism enabled adherence to rigorous epistemic standards while allowing appropriation of human values, truth and free will. James's pragmatism therefore presents a methodology for 'settling metaphysical disputes that might otherwise be interminable' (James, 1907, p. 28). Unless there is a 'possible difference of practice' that would follow after comparing the consequences of a situation, such an argument is futile (James, 1907, p. 29).

The above demonstrates how some of the prominent classical pragmatists contributed to the development of contemporary pragmatist philosophy. However, many historical accounts overlook the significant contribution of women to the development of pragmatist philosophy. Feminist theorists made significant advances to pragmatist philosophy during the 20th century, their work being underpinned by the values and assumptions of classical pragmatism. The work of feminist pragmatists (Jane Addams, Jessie Taft, Charlotte Perkins Gilman and Charlene Haddock Seigfried) involves theories informed by experience, which are designed to guide action (McKenna, 2003). Since 1991, the field of feminist pragmatism has continued to grow as a subdiscipline of American philosophy. The central ideas of feminist pragmatism, and the application to nurse presenteeism, will be explored in the following sections.

Combining pragmatism with feminist ideologies

Links between pragmatism and feminist theories can be made by examining definitions of each. One basic definition of feminism is 'the belief that the subordination of women is wrong, that the absence of women's perspective distorts and limits traditional social and political theory, and that addressing male bias in both theory and practice will result in a society more inclusive of diversity' (McKenna, 2003, p. 4). McKenna added to this Seigfried's working definition of pragmatism, identifying possible links:

> *Pragmatism, as a philosophy that stresses the relation of theory to praxis, takes the continuity of experience and nature as revealed through the outcome of directed action as the starting point of reflection. Experience is the ongoing transaction of organism and environment; in other words, both subject and object are constituted in the process. When intelligently ordered, initial conditions are deliberately transformed according to ends-in-view, that is, intentionally, into a subsequent state of affairs thought to be more desirable. Knowledge is therefore guided by interests or values (Seigfried, 1996).*

Transactive experience is a central tenet of feminist analysis, recognising that our knowledge and ethics are guided by our interests and values (McKenna, 2003). Feminist research builds knowledge with women's experiences as the foundation, aims to benefit women, and values the role of the researcher, not as an impartial observer, but on 'the same critical plane as the subject matter' (Seigfried, 1996). As highlighted by McKenna (2003), these concepts are supported from a pragmatist viewpoint, just as pragmatism gains further support and evolves by incorporating a feminist viewpoint.

According to Rooney (1993), both pragmatism and feminism were developed in response to the limitations of more traditional philosophies, valued for their problem-solving focus and usefulness in developing understanding of the world in which we live. Pragmatism accepts the importance of practice and experiences, and accepts fallibilism (Hamington & Bardwell-Jones, 2012), which is the epistemological thesis that no belief is beyond doubt. Similarly, feminism encompasses the lived experiences of women as vital sources of knowledge. Feminism encompasses a range of sociopolitical movements and ideologies, with a central aim of establishing equality. As with pragmatism, transforming society and moving forward towards a socially just world is a major aim of feminism (Üstün & Süren, 2022). As outlined by Hamington and Bardwell-Jones (2012), combining pragmatism and feminism creates a unique vantage point that can be used to examine certain social experiences. This approach can be used as a lens through which to create new knowledge, encouraging inclusive pluralism within specific research contexts, more so than either pragmatism or feminism can do alone.

Feminist pragmatism as a research paradigm involves an integration of feminist and pragmatist principles. According to Seigfried (1991), feminist and pragmatist thinking both involve: a) starting

with the experience of the person; b) a research goal of resolving an issue; and c) the researcher being the investigator, whose experience shapes research knowledge. Feminist pragmatism focuses on practical solutions to social and political issues, and emphasises the importance of taking into account the perspectives and experiences of marginalised groups. One premise of this philosophy in research is that solutions to problems based on lived experience and shared knowledge will benefit all members of the community, not only women (Gillberg, 2012). While feminist pragmatism has traditionally been associated with feminism and women's rights, it can also be applied to all genders, including men and non-binary individuals.

Feminism, while differing definitions exist, is widely recognised as an ideology that demands equal rights for men and women, and consists of a number of different social, cultural and political movements (Mohajan, 2022). Feminism means all genders having equal rights, recognition and opportunities. Respect for women's diverse experiences, identities, knowledge and strengths is fundamental (International Women's Development Agency, 2023). Striving to empower all women to realise their full rights is a central tenet of feminism.

The researcher acknowledges that this study is centred around women and does not include the perspectives of other genders. However, the findings are applicable and beneficial to all genders. The research focuses on nurse presenteeism and work-life conflict. By considering the findings of this study, individuals of all genders - women, men, and non-binary – are prompted to critically reflect on their own experiences and viewpoints in relation to healthcare.

The study also urges consideration of how gender norms and stereotypes associated with experiences of working in healthcare or seeking healthcare services can enable men to develop their own understanding of patriarchy. Advocacy for exploring how gender biases and stereotypes influence one's thinking and behaviour is crucial for change. By raising awareness and highlighting issues facing women in the nursing workforce, including presenteeism and caregiving responsibilities, cultural norms and ingrained gender roles can be challenged. Men may benefit from critically considering nurse presenteeism, work-family conflict, and the impact of these issues on

nurses, patients, and healthcare organisations at large. This critical reflection can lead to a more inclusive and equitable healthcare environment.

In a broader sense, this research is also relevant to men in the context of addressing broader social and political issues, such as nurse presenteeism, patient safety and nurse well-being. Improving the lives of nurses by exploring nurse presenteeism and nurse health, and recommending action to address challenges nurses experience, is beneficial to all. Improving the well-being of nurses means that families may function better as a unit, and this then benefits communities.

Feminist pragmatism as a research paradigm

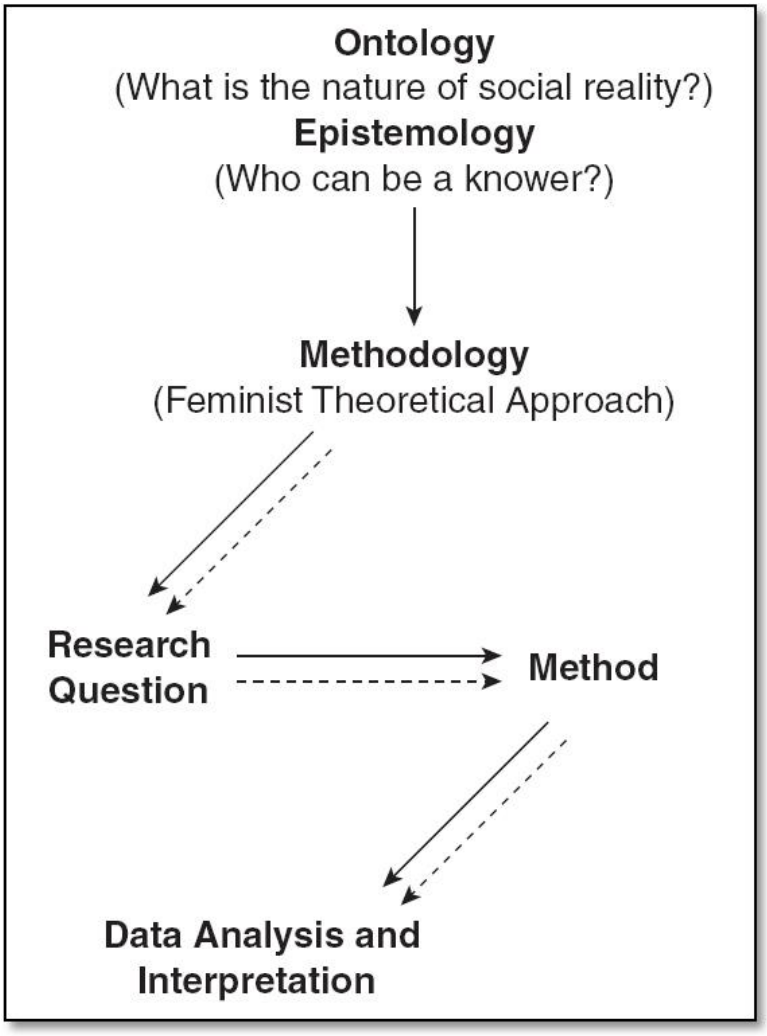
A crucial part of the research process is identifying suitable ontological and epistemological frameworks (Al-Ababneh, 2020). This step is essential for establishing the legitimacy of the study design and the knowledge that is subsequently produced. Ontology is concerned with the structure and nature of reality and being, exploring theories of what exists (Runes, 2001; Sahakian, 1968). Ontology is a metaphysical concept, the central tenet of which focuses on describing the ultimate nature of things as they are (Urmson & Rée, 1991). Metaphysical realism is of particular relevance to nursing, that is, that objects or entities exist which are independent of our understanding and experience (Rawnsley, 1998). Epistemology is often termed the theory of knowledge, and relates to philosophical concepts around the origin and structure of knowledge (Rawnsley, 1998). The scope of epistemology includes believing, perceiving, inferring and imagining – the purpose being to use these processes to determine whether or not certain beliefs can be justified. Methodology, as clarified by Crotty (1998), is the process, strategy or framework for yielding information, that justifies the choice and use of certain techniques. Together, ontology, epistemology and methodology function as a paradigm: a position or understanding of a viewpoint or perspective of the world in which we live (Rehman & Alharthi, 2016).

An important part of the research process is axiological practice. Axiology means encompasses being cognisant of values, attitudes, and biases and considering (a) what questions are asked or not

asked in our research; (b) what type of data is or is not collected; and (c) the type of methods, measurement, analysis, and interpretation that shape our understanding of the research process.

An important part of research involves axiological practice. Axiology means being aware of values, attitudes, and biases, and it plays a role in determining (a) the questions we choose to ask or not ask in our research; (b) the data we decide to collect or not collect; and (c) the methods, measurements, analysis, and interpretation methods that influence our understanding of the research process (Nagy Hesse-Biber, 2010). As illustrated by the model of axiology and feminist research practice (Nagy Hesse-Biber, 2010) in *Figure 5*, the research question carries with it a distinct worldview or paradigmatic perspective. This perspective comprises the underlying assumptions researchers hold regarding the nature of the social world (ontology) and who possesses the capacity to understand this world (epistemology). This paradigmatic orientation naturally leads to the adoption of specific methodological approaches. These paradigmatic beliefs may be either explicit (indicated by the solid arrow) or implicit (indicated by the dashed arrow). The researcher's choice of methods, as well as the analysis and interpretation of data, is influenced by their overarching paradigmatic research perspective.

Figure 5. Axiology and Feminist Research Praxis (Nagy Hesse-Biber, 2010)



Feminist pragmatism is the worldview, or lens, through which each element of this research has been conducted. Ontologically, arguments of realism or relativism are rejected, as both perspectives are needed to understand human experience (Morgan, 2007) as told by women throughout this research. Epistemologically, the knowledge created is a tool for action, focusing on nurse presenteeism as the concept of enquiry and the process of knowledge seeking. The purpose of using a feminist pragmatist lens in this research is not metaphysical argument and debate, but to focus on women's experiences, and the meaning and consequences of those experiences. Coined 'consequence phenomena' (Dewey, 1931), the goals of social action and change are approached from the bottom up, and enquiries are conducted from within our experience and values (Dewey, 1925). The experiences of women inform the way research is planned, carried out and disseminated. To understand a human experience, it needs to be accessed, and explained, through the lens of

those experiencing it (Karp, 2017), which calls for women working as nurses as participants. Recommendations for change, and/or future research, are given with women's experiences at the centre.

Nurse presenteeism is a feminist issue, as women comprise more than 80% of the nursing workforce (NMBA, 2021b). As nursing has long been a female-populated profession, feminist theory offers a useful lens with which to undertake nursing-related research (Burton, 2016). As Mollard (2015) highlighted in her paper on post-partum depression research, feminism as a theoretical position is particularly useful when used to explore contexts that encompass women's issues. It facilitates researchers to explore, identify and address issues facing women, and has been used in nursing for many years (Im, 2010).

The theoretical underpinning of this feminist pragmatist research reflects my ontological and epistemological assumptions. In the very early stages of planning this research, a pragmatic approach was adopted, guided by the desire to do what 'fits best'. However, my feminist pragmatist worldview informs natural immersion in this subject matter, as does my lived experience of being a nurse, mother and researcher. I live my life questioning the dichotomy of nursing as a professional role, and caregiving in a domestic sense. I am driven to create positive change for women and nurses. My aim is to bring attention to the problem of presenteeism among nurses and its effects on nurses' health, and to use this awareness to implement tangible improvements that benefit women.

The essence of feminist pragmatist beliefs places a significant emphasis on social justice and the enhancement of individuals' lives. This aligns with the investigation of nurse presenteeism, as nurses are dedicated to caring for, healing and ultimately improving the well-being of those they care for. My lived experience is grounded in social action, which aligns with the central tenets of feminist pragmatism as a research approach: a willingness to experiment, to learn from experience, and to adapt strategies for change based on what works. The detrimental impact of nurse presenteeism on the lives of nurses, patients and the wider community creates a moral imperative for action. Exploring nurse presenteeism in Australian high acuity settings using a feminist pragmatist methodology facilitated women-centred research. This research formalises efforts to address the challenge and

consequences of nurse presenteeism, aiming to enhance the lives of individuals, families and societies.

Feminist pragmatism and a mixed methods research design

The choice of research methods was informed by the feminist pragmatist methodology. While there is contention about which paradigms best inform mixed methods research, pragmatism is thought to be most compatible (Creswell & Plano Clark, 2017; Denscombe, 2008; Johnson et al., 2007). Therefore, considering the alignment of feminism and pragmatism as philosophies as discussed above, feminist pragmatism philosophy aligns with mixed methods research.

Pragmatism avoids the use of metaphysical concepts and focuses on practical and applied research (Tashakkori & Teddlie, 2003). According to Johnson et al. (2007), mixed methods, and pragmatic philosophy, is 'an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints' (p. 113). Tashakkori and Teddlie (2003) state that pragmatism and mixed methods research emphasise the research question, as it is more significant than the method used or the philosophical view that underlies the method. A pragmatic approach focuses on 'research questions that call for real-life contextual understandings, multi-level perspectives, and cultural influences' (Creswell et al., 2011, p. 4). This therefore dictated the decision to consider both qualitative and quantitative viewpoints of nurse presenteeism, while seeking a practical solution for the wide variety of research questions (presented again later in this chapter).

Pragmatism has been presented as an alternative to metaphysical theories including positivism, critical theory, post-positivism and participatory approaches (Morgan, 2007). Johnson and Onwuegbuzie (2004) present pragmatism as an outcome-oriented approach, interested in determining the meaning of things. This philosophy, and feminist pragmatism, places an emphasis on communication and shared meaning-making to address social problems with practical solutions (Shannon-Baker, 2016).

Further posited by Shannon-Baker (2016), pragmatism enables the researcher to preserve subjectivity in their own beliefs on the research subject and objectivity in data collection and analysis. It is important, however, to disclose the influence of the researcher on the knowledge being created. Although data can be collected in an objective and methodological way, in this research, the researcher is an important part of the narrative. Truth is drawn both from the objective world in which the researcher and participants live, and the socially constructed world created by humans (Mollard, 2015).

The use of a pragmatic philosophy in mixed methods research is often described as implementing workable approaches to problem-solving. However, Morgan (2014) contends that this captures only part of the message of pragmatism. Significance needs to be placed on questions about why to undertake research in a certain way. According to classical pragmatists, we need to ask what difference does it make to do our research one way rather than another? (James, 1995) and focus on both the goals to be pursued and the means to meet those goals (Morgan, 2014). Using this line of questioning, and the feminist pragmatist philosophy underpinning this study, nurse presenteeism was explored through a cross-sectional survey with open-ended responses, as the data collection method.

Nurse presenteeism cannot be fully understood by those who do not have first-hand experience. Therefore, this methodology called for the collection of data directly from nurses. The researcher drew on personal experiences of nurse presenteeism to guide the narrative.

Mixed methods research

Mixed methods was historically defined by Greene et al. (1989, p. 256) as those research designs that comprise ‘at least one quantitative method (designed to collect numbers) and one qualitative method (designed to collect words), where neither type of method is inherently linked to any particular inquiry paradigm’. Maxwell (2016) argues that there is much research, both historically and contemporarily, that integrates qualitative and quantitative approaches, but which has not been formally identified as mixed methods. These designs were referred to by a variety of names including

multi-method, integrated, hybrid, combined and mixed methodology research (Creswell & Plano Clark, 2017). Recently, the definition of mixed methods research became more comprehensive and nuanced, referring to research that mixes 'issues and strategies surrounding methods of data collection (e.g., questionnaires, interviews, observations), methods of research (e.g., experiments, ethnography), and related philosophical issues (e.g., ontology, epistemology, axiology)' (Johnson et al., 2007, p. 118). Generally, mixed methods research is when multiple methods are employed in a study and integrated to provide an innovative approach to answer the overarching research question. It refers to all techniques collecting and analysing both quantitative and qualitative data in the same study (Driscoll et al., 2007; Tashakkori & Teddlie, 2003). The goal of mixed methods research is not to replace qualitative or quantitative approaches, but to draw strengths from and minimise the weaknesses of both (Howe, 1988).

Over the past 20 years, mixed methods research has become increasingly prominent and is now recognised as the third major research approach (Creswell & Creswell, 2017). While the advantages of mixed methods research are now well recognised, this subject has been a source of contention. For more than a century, critical thinkers have argued that there must be two distinct paradigms of enquiry: qualitative and quantitative (Ayer, 1959). Many traditionalists advocate the incompatibility thesis, which supports the view that qualitative and quantitative research paradigms cannot and should not be mixed. According to Bryman (2006), this stems from the different epistemological and ontological assumptions underpinning these different research approaches, and the methods used in each approach. For example, quantitative research methods are based on the positivist concept of a singular reality waiting to be uncovered by objective and impartial investigation (Feilzer, 2010).

In contrast, constructivist researchers theorise that a single objective reality does not exist and therefore subjective enquiry through qualitative methods is critical. These 'paradigm wars' are now mostly in a state of peace (Bryman, 2006) and the focus has moved to ensuring appropriate integration of research techniques (McCusker & Gunaydin, 2015). The emergence of post-positivism during the 1950s and 1960s led to acknowledgement of the impossibility of total objectivity in research. According to Onwuegbuzie (2002), post-positivism represented a modified dualism, where

reality is constructed and influenced by researchers, but with an emphasis on deductive logic and the importance of theory/hypothesis. This led to other paradigms and the belief that there are numerous ways of knowing and experiencing the world. The development of pragmatism, which posits the existence of both objective (quantitative) and subjective (qualitative) viewpoints, soon followed. While this worldview conflicts with purist perspectives, Howe denies that combining methods from both paradigms is epistemologically incoherent (1988, p. 10). The mixed methods approach used in this study rejects conflict between qualitative and quantitative approaches and focuses instead on the strengths this design brings to the pursuit of new knowledge.

A mixed methods approach was chosen to explore nurse presenteeism in Australian high acuity settings. Nurse presenteeism is a multifaceted field for research; there are many organisational and structural factors that are different to other industries. Antecedents of presenteeism vary between individuals, and work engagement and health are mediators of personal and work-related factors contributing to presenteeism (Miraglia & Johns, 2016). While the use of a survey is useful for gathering empirical data, including administrative facts, and investigating links between concepts (Schneider et al. 2016), the multifaceted relationships under investigation in this research required more than one method because of the complexity of this topic. The qualitative research tradition facilitates the exploration of human experiences or phenomena, with the assumption that meaning is socially constructed by individuals through interaction with their world (Merriam & Grenier, 2019). The benefits of combining quantitative and qualitative methods include bringing strengths of both methods into a study, as neither a quantitative nor qualitative method alone can capture both the trends and the minutiae of the situation (Creswell & Plano Clark, 2017; Yardley & Bishop, 2015). Presenteeism in the nursing population is a complex issue, and quantitative and qualitative methods of enquiry best capture the different dimensions of nurse presenteeism. A mixed methods approach was considered most appropriate for this research study because:

1. The collection of quantitative data alone, while providing information relating to the proportion of nurses who experience presenteeism and to what extent, would not provide insight into the experience of presenteeism

2. The collection of qualitative data alone would not result in data relating to presenteeism on a national level, from a large number of nurses.

The mixed methods approach has significant strengths because using and integrating both qualitative and quantitative data can enhance the value of a study (Creswell et al., 2011). Additionally, mixed methods research uses data triangulation to gain a deeper understanding of and enhance what is known about a given research question (Denzin, 2012). If findings are supported across the data, then greater confidence can be held in the singular conclusion; if the findings conflict, then the researcher has greater knowledge and can modify interpretations and conclusions accordingly. While the role of data triangulation, primarily in measurement, was previously a focus in research, data triangulation is now known to contribute more broadly to our understanding of the phenomenon under investigation (Turner et al., 2017). According to Burton and Obel (2011), triangulation aims to generate a better understanding of the issue under study by using multiple approaches to carry out research, and the strengths of one method may offset the weakness of the other(s). By collecting both quantitative and qualitative data in this study, nurse presenteeism in high acuity settings could be explored comprehensively.

Research design

The first critical decision in conducting this study was to consider the way in which qualitative and quantitative methods would be combined, which is essential for maintaining rigour throughout the research process (Morse & Niehaus, 2016). According to Creswell and Plano Clark (2017) there are four basic mixed methods designs, each with different purposes, strengths and weaknesses: convergent parallel, sequential exploratory, sequential explanatory, and embedded. In this study, a convergent parallel design was used to thoroughly investigate the impact of nurse presenteeism in high acuity settings. The principal component was the quantitative method of cross-sectional surveying, which informed the qualitative method of open-ended survey questions. These two types of data were collected concurrently, using the same method. The quantitative and qualitative data have been integrated in the discussion (Creswell & Plano Clark, 2017).

Further, in this research, the research questions comprised multiple concepts. The choice of combination of research approaches must meet the specific objectives of a study, and therefore the complex nature of the research questions in this study drove the choice of a mixed methods approach (Halcomb & Hickman, 2015; Tariq & Woodman, 2013). A concurrent design was chosen because the flow of data collection enabled participants to complete survey questions, then have the option of explaining their answers to close-ended questions. This concurrent design was conducted over one phase, where the qualitative data built on the quantitative data (Creswell et al., 2011).

According to Morse and Niehaus (2009, p. 14), in a true mixed methods study the supplemental research component is 'partially complete and not conducted rigorously enough to stand on its own'. Other authors emphasise the need for rigour in every component of a mixed methods study (Creswell & Plano Clark, 2017). Research design, timing of data collection and integration of results require careful consideration. The decision to use a convergent parallel design, where both quantitative and qualitative data were collected concurrently, was based on several factors. Using a survey with open-ended questions was a way to both directly measure nurse presenteeism and health-related quality of life, and to explore participants' perspectives and lived experiences. By employing both types of data collection, the data could be analysed from two different perspectives.

The quantitative data measured the percentage of high acuity nurses in Australia who report presenteeism. The associations between job-stress-related nurse presenteeism, nurses' work functioning, and health-related quality of life could also be determined from the quantitative data. The open-ended questions provided detailed information about nurses' experiences of presenteeism, allowing insight into what aspects of presenteeism were particularly concerning or relevant to participants. This design allowed the researcher to use qualitative data to explain significant, non-significant or unexpected quantitative results (Tashakkori & Teddlie, 2003). Additionally, direct comparisons between the two types of data collection (qualitative and quantitative) could be made, allowing researchers to look at relationships between nurse presenteeism, nurse health and patient safety in innovative ways. External resources were also considered when designing this study, as some methods for data collection and analysis are costly

and time-consuming (Bengtsson, 2016). The best way to address research objectives, and the balance between restricted resources and the reality of undertaking a mixed methods study as a novice researcher, informed the decision to use a convergent parallel design.

The survey

Cross-sectional surveys are commonly employed in the fields of nursing, medicine and social science research to gather information regarding the occurrence of diseases, behaviours, intentions, knowledge, attitudes and opinions of respondents (Polit & Beck, 2020; Sedgwick, 2014).

Surveys have been used as a research tool for many years and for many purposes, for example, gathering administrative facts, investigating a cause–effect relationship or examining a sociological theory (Schneider et al. 2016). A survey can therefore be used to examine relationships between variables. Cross-sectional survey design was beneficial in this research as it allowed measurement of nurse presenteeism using different instruments, providing more holistic data. It also enabled health-related quality of life to be measured, and the relationships between variables to be explored.

A survey is also flexible, can measure multiple behaviours or conditions, and can be used with many different populations (Polit & Beck, 2020). In this research, a survey could be easily distributed nationally, providing the opportunity to collect data from participants in wide-ranging geographical locations.

According to Spector (2019), the cross-sectional survey has been widely criticised, and the superiority of the longitudinal design highlighted. A cross-sectional survey is, however, appropriate for providing a snapshot in time of the concept under investigation. A limitation of the cross-sectional design is that data are self-reported, and there might be transient occasion factors that bias measures and serve as sources of common method variance. For example, the mood of the individual completing a survey might affect responses to items across scales, and this might inflate correlations. While there are limitations to a cross-sectional survey, this method is most advantageous when used to conduct exploratory research (Spector, 2019), as is the case in this research.

Open-ended questions were included at regular, strategic intervals throughout the survey, to enable participants to expand on their answers to the validated survey tools. According to Holland and Christian (2009), open-ended questions allow participants to answer in their own words without being limited to the response options provided. As reported by Driscoll et al. (2007), this strategy of using open-ended questions to collect data has several advantages for mixed methods application. The text entry fields relate directly to the preceding structured responses, which facilitates connection of response types by participants, and during analysis by the researcher. Participants in this studies were primed in terms of context of the research, and therefore including the opportunity to expand on close-ended responses may yield valuable views, attitudes and opinions.

The qualitative, descriptive component of this survey was designed to elicit open-ended responses from participants. There were 10 qualitative questions ('I wish to explain my response') placed at regular intervals throughout the survey. These were designed to give participants opportunities to share thoughts, feelings and experiences, without forcing a written response. These open-ended survey questions elicited responses in the form of rich qualitative data. Responses ranged from a few words to multiple paragraphs, giving insight into the lived experiences of participants. Qualitative analysis of this data was undertaken, to ultimately explore nurses' experiences of presenteeism.

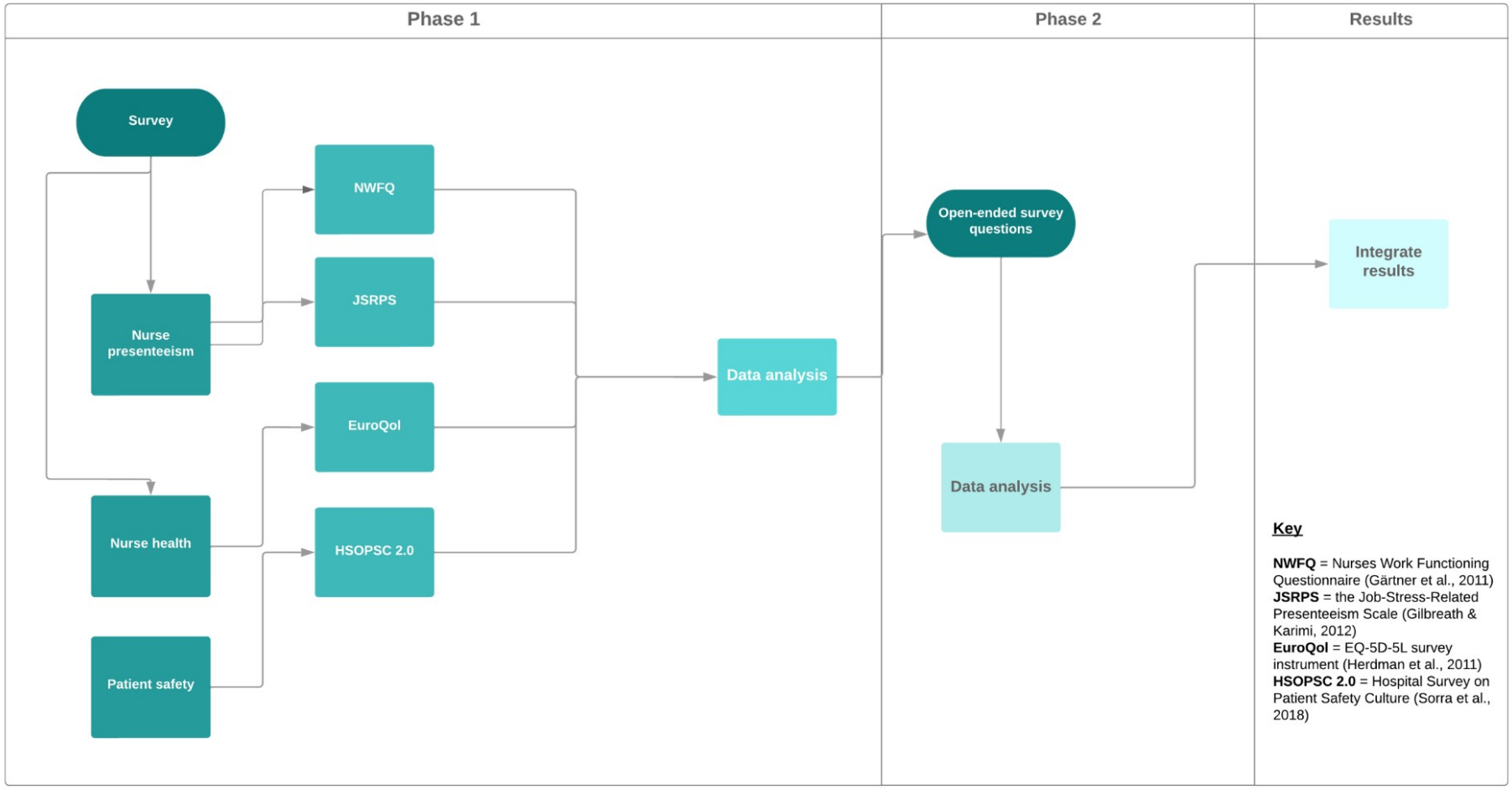
Research questions

It is important to define distinct research questions for each component of a mixed methods study, which can then be combined to address the main research question (Creswell & Plano Clark, 2017). The primary design strategy is determined by these research questions, including the sequence of data collection and analysis. The research questions, and resultant methods, discussed in this section determined the need for a convergent parallel design. *Figure 6* is a flow chart of the design of this study, including concurrent phases and the link between concepts and survey instruments.

The following research questions will be answered:

1. What percentage of high acuity nurses in Australia report presenteeism?
2. What are the associations between job-stress-related nurse presenteeism, nurses' work functioning, and health-related quality of life?
3. What is the impact of caregiving responsibilities on the experiences of presenteeism among nurses?
4. What methods of coping with situations that lead to presenteeism do nurses find effective?
5. What policy and leadership considerations arise from nurse presenteeism in Australia?

Figure 6. Flow chart of study design



Review of survey instruments

Nurse presenteeism

As discussed in Chapters 2 and 3, nurse presenteeism has not always been measured in existing research by using a rigorous, validated tools (Jiang et al., 2019; Rantanen & Tuominen, 2011; Szymczak et al., 2015). This is not unique to presenteeism research in nursing, as there is a lack of a standard metric to report presenteeism in other fields (Beaton et al., 2009; Mattke et al., 2007; Schultz et al., 2009). Therefore, the existing measures used in phase 1 of this research were carefully considered. A variety of existing scales, each with different measurement properties and statistical rigour, have been developed to study the relationship between various health problems and work output (Ospina et al., 2015). There are many survey tools that can be used to measure presenteeism, although they are all essentially subjective, relying on the respondents' recall and comprehension of survey items.

There are many survey tools that measure the effect of specific disease states on worker productivity including migraines/headaches (Davies et al., 1999; Schwartz et al., 1997; Stewart et al., 2001), arthritis (Backman et al., 2004), musculoskeletal symptoms (Hagberg et al., 2002) or diabetes (Tunceli et al., 2005). While these types of measurements can be valuable, they were omitted from consideration for use in this research as they relate to specific health conditions. Single-focus measurements are less useful as a general presenteeism measure.

As identified in Chapters 2 and 3, commonly used presenteeism measures include a one-item measure of attendance at work when sick, the Stanford Presenteeism Scale (SPS-6), the World Health Organization's Health and Work Performance Questionnaire (HPQ), the Health and Work Questionnaire (HWQ), the Nurses Work Functioning Questionnaire (NWFQ) an the Job-Stress-Related Presenteeism Scale (JSRPS), among other unvalidated tools. The one-item measure of attendance at work when sick requires a response to the question 'In the previous 6 months have you gone to work despite feeling that you shouldn't have?' This is a simplified version of the original item, adapted from a validated tool from Aronsson et al. (2000), and different time frames are used across the literature. As discussion in Chapter 3, the longer the time frame, the more participants

can be expected to have experienced presenteeism. As the time frame increases, however, the role of recall bias also increases which may offset any statistical increase in the rate of presenteeism. According to Johns (2009), a period of 1 month has been shown to be the most accurate time frame for participants to report information about their presence and productivity at work, as recalling information beyond this time frame decreases accuracy.

Ospina et al. (2015) found that of 23 presenteeism instruments reviewed, the SPS-6 (Koopman et al., 2002) had one of the strongest levels of evidence on more than one measurement property (content validity, internal consistency, construct validity, convergent validity and responsiveness). The SPS-6 measures a worker's ability to concentrate and accomplish work despite health problems. It has a two-factor structure, with one factor (items 2, 3 and 5) on completing work and the second factor (items 1, 3 and 4) on avoiding distractions, and involves reporting performance impairments due to health problems during the past month. It has been widely tested and used to measure the incidence of presenteeism across the nursing population in different settings and countries. However, the SPS-6 had lower reliability when used with nurse participants (Cronbach's $\alpha = 0.66$) and therefore may not be suitable for use in the nursing population (Rainbow et al., 2019).

The HWQ (Shikiar et al., 2004) can also be used to assess workplace productivity in relation to worker health. It contains scales that assess productivity, concentration/focus, supervisor relations, work and non-work satisfaction, and impatience/irritability. According to a systematic review of the measurement properties of presenteeism instruments, the HWQ is one of the strongest instruments available to measure presenteeism (with strong internal consistency, reliability and validity) (Ospina et al., 2015). The mean scale score reported was 7.7 (total score standard deviation not reported) when used to measure presenteeism in a population of airline agents; however, this tool has not been used in a nursing population (Shikiar, 2004 cited in Rainbow et al., 2019). Research suggests that the HWQ has a problematic factor structure and the use of this instrument should be further explored in additional populations (Rainbow et al., 2019).

The World Health Organization's HPQ (Kessler et al., 2003) is used to measure job performance consisting of two aspects: absolute presenteeism and relative presenteeism. Absolute presenteeism

is actual performance, and relative presenteeism is a ratio of actual performance to the performance of most workers at the same job. The HPQ collects three kinds of information, experienced during the past 4 weeks: prevalence and treatment of common diseases, their consequences for work performance, and absenteeism and presenteeism (the latter as perceived productivity loss due to health impairments). The HPQ facilitates an understanding of the indirect workplace costs of illness, which is needed to make comprehensive decisions about structural workplace changes and benefits (Kessler et al., 2004). The HPQ has been shown to have good content, concurrent and construct validity (Ospina et al., 2015). According to Wang et al. (2003), it is one of the few objectively validated measures of presenteeism that has demonstrated good concordance. The HPQ had four out of the seven hypotheses confirmed (57%), indicating moderate construct validity, when using the HPQ absolute method of scoring (AlHeresh et al., 2017).

Additionally, the HPQ has been used in a wide variety of participant groups (Kessler et al., 2003; Lam et al., 2009; Terry & Xi, 2010; Zhang et al., 2010). The calculation of presenteeism in the HPQ relies on the responses to two 0 to 10 scales rating the employees' own performance and the performance of co-workers in a similar job. The developers of the HPQ have tested validity and correlations with independent measures of workplace performance. The HPQ has shown good internal consistency in previous studies (α =0.83) (Mathes et al., 2019). Despite good internal consistency, the length of this survey instrument was identified as causing issues when sent out informally to a small sample of nurses from the researcher's network. These nurses reported that this survey instrument was long and complicated, causing survey fatigue and preventing completion/motivation to complete the survey. This was seen as having the potential to impact participants and possibly deter them from completing all items. The decision was made to remove this instrument from the survey.

The NWFQ (Gärtner et al., 2011) is also used to measure nurse presenteeism, by measuring impairments in work functioning. It consists of 50 items categorised into seven subscales: 1) cognitive aspects of task execution and general incidents; 2) impaired decision-making; 3) causing incidents at work (not suitable for allied health professionals); 4) avoidance behaviour;

5) conflicts and annoyances with colleagues; 6) impaired contact with patients and their family; and 7) lack of energy and motivation. Scoring ranges from 0 to 100, with higher scores indicating greater work impairment. Reported reliability varies between α=0.70 and 0.94 (Gärtner et al., 2011). The NWFQ was developed to be job specific and to better relate to the work context than more generic instruments such as the Work Productivity and Activity Impairment Questionnaire (WPAI), the Endicott Work Productivity Scale (EWPS) and the Work Limitations Questionnaire (WLQ).

The NWFQ was used in this research to measure impairment in work function, as the cognitive function of nurses has a direct impact on nurse work function and performance (Barbe et al., 2018). Nursing work function is a multifactorial construct that changes across work environments and involves execution of psychomotor tasks, interpersonal interactions and behaviour, critical thinking, decision-making, and caregiving. In addition, it requires adaptability, emotional stability and the skill of multitasking in a fast-paced environment (Gärtner et al., 2010). This is applicable to nurses working in high acuity settings because, as discussed in Chapter 2, these settings can be places of extreme activity and are usually in an ongoing state of flux (MacDonald, 2010). Nurses working in high acuity settings, including intensive care, perioperative and emergency department settings, are exposed to unique, stressful work-related factors. Using the NWFQ enabled another perspective from which to understand nurse presenteeism in high acuity settings. The NWFQ is freely available online and therefore permission to use this instrument was not sought.

The (JSRPS) (Gilbreath & Karimi, 2012) measures employees' job-stress-related presenteeism. The authors' definition of presenteeism is 'when employees are at work, but their cognitive energy is not devoted to their work' (Gilbreath & Karimi, 2012, p. 114). The scale consists of six items, which respondents are asked to rate from 1 (never) to 5 (all the time), with higher levels of presenteeism indicated by higher mean scores. Internal consistency is reported as Cronbach's α = 0.91 (Gilbreath & Karimi, 2012). The JSRPS has been used in a sample of community nurses in Australia by Karimi et al. (2015) to explore the effects of emotional intelligence on presenteeism and well-being. The JSRPS was used in this study to measure job-stress-related presenteeism (see Appendix B for permission to use this survey).

As identified in Chapters 2 and 3, a significant limitation of current presenteeism research is the focus of existing measures on one specific type of presenteeism (i.e. sickness or stress). These measures do not take into account other reasons for presenteeism, and do not apply other known risk factors. According to Rainbow et al. (2019), using a broader conceptualisation of nurse presenteeism, through a combination of presenteeism measures, may enable a more comprehensive overview of this issue. Therefore, the NWFQ and JSRPS were used together to enable a broader and more holistic conceptualisation and measurement of nurse presenteeism in high acuity settings.

Perceived patient safety

An instrument to measure patient safety will also be included in the survey. One concern relating to nurse presenteeism is the resultant loss of concentration or work impairment, as discussed in Chapters 2 and 3. Consequences of presenteeism include medication errors, needle stick injuries, near misses and decreased patient satisfaction (Gärtner et al., 2010). Letvak et al., (2012), investigating the effect of presenteeism on patient safety, found an increase in the rate of patient falls and medication errors.

This study aims to explore the association between nurse presenteeism, work functioning, and the perceptions of patient safety. Creating a culture of safety in hospital settings is crucial to improve patient safety, health outcomes and the quality of care given by health care workers (Lee et al., 2019). Patient safety culture can be measured by determining what is rewarded, supported, expected, and accepted in an organisation as it relates to patient safety. The Hospital Survey on Patient Safety Culture (HSOPSC) (Sorra et al., 2018) developed for the developed for the Agency for Healthcare Research and Quality (AHRQ), will be used to measure nurses' perceptions of patient safety.

The survey includes 40 items that measure 10 composites of patient safety culture. The survey also includes two questions that ask respondents to provide an overall grade on patient safety for their work area/unit and to indicate the number of events they reported over the past 12 months. Composites used in analysis relate to the hypotheses tested, according to the aims of this research.

The individual measures of this instrument have shown good reliability, varying from α = 0.67 to 0.83 (AHRQ, 2019).

Nurse health-related quality of life

The health of Australian high acuity nurses was also measured to address the research questions. A healthy workplace is an organisation that 'maximises the integration of workers' goals for well-being and company objectives for profitability and productivity' (Sauter, 1996, as cited in Pournik et al., 2012). One key aspect of this definition is employee health.

The health of the nursing workforce contributes significantly to safe and effective patient care (Dyrbye et al., 2017; Hall et al., 2016). Engagement in patient care is negatively affected by episodes of poor nurse health or impairment. Furthermore, greater levels of presenteeism have been linked with poor health behaviours and health problems (Merrill et al., 2012). Physical health limitations and depression/anxiety are significant contributors to presenteeism. However, a greater understanding of nurse presenteeism and health-related quality of life is needed.

Therefore, the EQ-5D-5L survey instrument was used in this study to describe and value the health of participants. The EQ-5D-5L was introduced by the EuroQol Group in 2009 and is based on a descriptive system that defines health in terms of five dimensions: mobility; self-care; usual activities; pain/discomfort; and anxiety/depression (Brooks, 1996; Herdman et al., 2011). The EQ-5D-5L has five levels of severity in each dimension, which has been shown to significantly increase reliability and sensitivity while reducing ceiling effects, compared with the three-level version (Janssen et al., 2013). Respondents also rate their overall health on the day of the interview on a 0–100 hash-marked, vertical visual analogue scale (EQ-VAS). The EQ-5D has been widely tested and used in both general population and patient samples and has been translated into over 130 different language versions. Internal consistency is not a relevant psychometric property for this survey instrument. However, agreement between applications over a period of time can be measured with Cohen's kappa (κ) for categorical items (EQ-5D-5L items) or intraclass correlation for continuous values (EQ-5D-5L index value). Levels of ≥0.8 and ≥0.7, respectively, are determined as acceptable (Cohen, 1960; Feng et al., 2021).

Using the EQ-5D-5L survey instrument elicited information regarding the health of nurses working in high acuity settings, enabling relationships with nurse presenteeism to be explored.

Ethical considerations

Research involves numerous ethical commitments to allow the participants' dignity and privacy to be protected and respected. Informed consent, beneficence, respect for anonymity, confidentiality and privacy are ethical values that must be upheld in any research endeavour (Fouka & Mantzorou, 2011). It is essential that researchers uphold ethical principles in research and adhere to ethical norms to ensure participants are protected from harm (Hardicre, 2014; Resnick, 2020). Ensuring ethical norms are upheld distinguishes between acceptable and unacceptable behaviour, and promotes the aims of research including the discovery of knowledge, truth and avoidance of error. Ethical standards aim to promote trust, accountability, mutual respect and fairness between different people at all stages of the research process (Resnick, 2020).

The researcher recognises that participants may have experienced emotional discomfort, given the nature of the research. Participation in this research involved sharing experiences and views relating to working while sick. Therefore, it is possible that participants may have experienced discomfort or guilt relating, but not limited, to coming to work while sick, being a burden to co-workers, or coming to work sick for financial gain. Participants were advised that they may answer 'no comment' or refuse to answer any questions, and that they were free to withdraw from the survey at any time without effect or consequences. Participants were given the phone numbers of support services: Lifeline Adelaide, and the employee assistance scheme or Work Health and Safety Officer. Potentially, nurses may have benefited from the opportunity to share their views about nurse presenteeism safely and anonymously.

An application for ethics approval was submitted to the Flinders University Social and Behavioural Research Ethics Committee prior to beginning data collection. The project was deemed low risk and was approved (no. 8279). The submission process ensured protection of the rights and

welfare of participants. Approval documentation is available in Appendix C. Information relating to the ethical approach to this study is presented in the following chapters.

Informed consent was gained from participants, consistent with guidelines provided in the National Statement on Ethical Conduct in Human Research (National Health and Medical Research Council, Australian Research Council & Universities Australia, 2018). Participants needed to understand the purpose of the research and possible repercussions relating to this study. Nurses participated with full disclosure of the study's purpose and methods as documented in the participant information sheet (Appendix D). Participants were asked to select 'yes' or 'no' to indicate consent to participate in the survey.

Integration of data

The mixing of both qualitative and quantitative data is a relatively new concept in research (Bazeley, 2012). According to Bryman (2007), many researchers have difficulty in mixing qualitative and quantitative data and linking analysis and interpretation. Integrating different data types to form a sum greater than its parts requires significant time, consideration and a clear approach. Integrating qualitative and quantitative data in mixed methods research can enhance a study and provide a different or more complete picture of the phenomenon under investigation (Bryman, 2006; Creswell et al., 2011).

There are specific approaches to integrative qualitative and quantitative research methods and data. Integration can occur at the interpretation and reporting stages through 1) narrative, 2) data transformation, and 3) joint displays (Stange et al., 2006; Tashakkori & Creswell, 2007). Countless strategies have been developed and implemented, which incorporate these approaches.

In this research, qualitative and quantitative data were integrated through narrative discussion, leading ultimately to meta-inference. After presentation of quantitative and qualitative data in separate chapters (Chapter 5 and Chapter 6, respectively), both sets of findings will be woven together (Fetters et al., 2013). As the data collected in this research is complex, research findings will be integrated in a dual display (focusing on the concordance between quantitative and qualitative

results) (Chapter 7). The convergent design joint display is based on the design by Dickson et al. (2011), developed by comparing and contrasting both survey and interview data. The display contains a row for each quantitative variable and corresponding qualitative categories. The integrative discussion (Chapter 7) will then answer the research questions, creating an original knowledge contribution.

Conclusion

This research explored the complex issue of nurse presenteeism in Australian high acuity settings through a mixed methods approach, combining quantitative and qualitative data collection methods. The study was underpinned by a feminist pragmatist philosophy, highlighting the significance of communication and shared meaning-making as essential components for addressing social issues through practical solutions.

By employing a convergent parallel mixed methods design, this research aims to address a series of research questions. These questions encompass the prevalence of presenteeism; its associations with job-related stress, work functioning and health-related quality of life; the impact of caregiving responsibilities on nurses' experiences of presenteeism; effective coping strategies; and policy and leadership considerations. The combination of quantitative and qualitative data will provide a comprehensive perspective on the issue, allowing for a deeper understanding of nurse presenteeism in high acuity settings.

The NWFQ and the JSRPS were identified as instruments that could provide a more holistic understanding of nurse presenteeism, considering factors contributing to presenteeism beyond just sickness or stress. Open-ended questions provided an opportunity for nurse participants to share their experiences of presenteeism and other relevant issues they face.

The study takes into account the complex nature of nurse presenteeism and the multifaceted factors that contribute to it. By using a mixed methods approach, the research aims to shed light on this important issue, with the goal of improving the well-being of nurses, patients and the broader community. The integration of both quantitative and qualitative data will allow for a more holistic

exploration of nurse presenteeism, offering insights and recommendations for addressing the challenges it presents.

Chapter summary

Chapter 4 detailed the methodology and methods used to conduct this research. Chapter 5 presents the quantitative component of this research, which explores relationships between nurse presenteeism, health-related quality of life, supervisor support, and patient safety.

CHAPTER 5: QUANTITATIVE FINDINGS

Associations between presenteeism, health-related quality of life, supervisor support, and patient safety among Australian high acuity nurses

Chapter overview

Chapter 5 presents the quantitative component of this research. It outlines the background, research aim, methods and results. An in-depth discussion is then presented, before study limitations and conclusion.

Conference presentation

Quantitative findings of this study have been disseminated in the following presentation:

Freeling, M. (2022, November 26). *Painting a picture of nurse presenteeism* [Paper presentation]. ACORN 2022 Virtual Conference, Australia. https://www.acorn.org.au/vcs-recordings

Introduction

As discussed in previous chapters, nurse presenteeism is a critical area of enquiry, given its potential influence on the health and safety of both nurses and patients. The health and well-being of the nursing workforce contribute to safe and effective patient care (Dyrbye et al., 2017; Hall et al., 2016). Presenteeism is undermining the capacity of nurses to deliver safe, responsible and holistic patient care (Brborovic & Brborovic, 2017; Letvak et al., 2012; Oliveira et al., 2015; Widera et al., 2010). Presenteeism among healthcare workers has serious consequences for patient outcomes and is more prevalent among nurses than other occupational groups (Aronsson et al., 2000; Rainbow & Steege, 2017). Presenteeism is prevalent among the nursing workforce globally, and is tied to multiple economic, patient and nurse health consequences (Freeling et al., 2020). Presenteeism in Australia represents a significant expense, costing the economy approximately A$34.1 billion per annum (KPMG, 2011).

Presenteeism behaviour has been extensively researched in the broader workforce across multiple industries, including management, epidemiology and occupational health (Johns, 2010). Although many aspects of presenteeism are consistent across various fields, presenteeism in nursing is ubiquitous. This is primarily because nurses are exposed to the main drivers of presenteeism: a high workload, overtime, time pressures, staff shortages and the physical demands of the job (Miraglia & Johns, 2016). In a pivotal study, Aronsson and Gustafsson et al. (2000) found nurses to have the highest rate of presenteeism of the 42 work sectors surveyed. Other studies have found that nurses are more likely to attend work when sick than other occupations (McKevitt et al., 1997; Rantanen & Tuominen, 2011).

Nurse presenteeism within high acuity settings has influencing factors that are unique to this context. Nurses are exposed to the continuous and unique mental and physical demands of caring for patients, particularly those nurses working in a high acuity environment. It is feasible that high acuity nurses, specifically those working in intensive care, perioperative and emergency department settings, are particularly vulnerable to the antecedents of presenteeism. Nurses working in these settings are exposed to challenging daily work routines, high patient morbidity and mortality, and regular encounters with challenging traumatic and ethical situations (Donchin & Seagull, 2002; Mealer et al., 2007). High job demands including physical, cognitive and social factors lead to prolonged physical and psychological effort (Bracewell et al., 2010).

In past research, several predictors of presenteeism have been identified. Causes of presenteeism may be person-related (gender, age, occupation, education, health state) or work-related (absence/sickness policies, job insecurity, relationships with co-workers, job dissatisfaction) (Aronsson & Gustafsson, 2005; Demerouti et al., 2009; Johns, 2010). Studies show that those with poorer health, due to pre-existing mental, physical or chronic health conditions, have higher rates of presenteeism (Freeling et al., 2020). Due to the gap in research regarding nurse presenteeism in Australian high acuity settings, predictors of nurse presenteeism have been deduced from the literature. Work-related factors, such as type of clinical setting (intensive care, perioperative, emergency department), public or private organisation, and staff management duties,

will be tested for correlations to presenteeism. Many organisational factors have been shown to affect presenteeism, such as employee relationships (Hansen & Andersen, 2008), management support and style (Caverley et al., 2007; Nyberg et al., 2008), and work culture (Johansson & Lundberg, 2004; McKevitt et al., 1997). Supportive organisational factors such as supervisor and co-worker support can reduce presenteeism (Yang et al., 2019) and job stress (Yang et al., 2015).

While many correlates of presenteeism have been explored, there is limited research examining the relationship between nurse presenteeism and health-related quality of life among nurses. According to the World Health Organization (2023), quality of life refers to an individual's subjective evaluation of their overall standing in life, considering their cultural and societal context, as well as their aspirations, expectations, values and worries. Exploring nurses' health-related quality of life is important due to its impact on personal well-being, job satisfaction and engagement, level of performance, and patient safety and satisfaction (Nowrouzi et al., 2016). According to Ramawickrama et al. (2017), health-related quality of life affects job satisfaction, as well as family and social relationships. When nurses are satisfied with their work and find meaning in their profession, they are more likely to be committed and motivated, and provide high-quality care to their patients. Job satisfaction and engagement are crucial for retaining nurses in the profession and preventing burnout (Yasin et al., 2020). A well-supported, satisfied and engaged nursing workforce is much better equipped to provide patient-centred care and meet the diverse needs of patients, particularly in fast-paced, technically challenging high acuity settings (Jakimowicz & Perry, 2015). Nurse presenteeism, which often arises from work-related stress and high workload, can potentially contribute to decreased health-related quality of life for nurses by negatively impacting their physical and mental well-being, job satisfaction, work–life balance, and professional development. While nurses' health-related quality of life and nurse presenteeism have been examined in the literature independently, the specific association between them has not been thoroughly explored. This forms the basis to the following hypotheses.

Hypotheses

The primary aim of this study was to explore relationships between nurse presenteeism, health-related quality of life, supervisor support, and patient safety.

H1: Nurse presenteeism is significantly negatively associated with health-related quality of life.

H2: Health-related quality of life mediates the relationship between job-stress-related presenteeism and nurses work functioning.

H3: Supervisor support moderates the negative relationship between nurse presenteeism and health-related quality of life.

H4: Nurse presenteeism is significantly negatively associated with patient safety

H5: Nurse presenteeism mediated by nurses work functioning is negatively associated with the perception of patient safety.

H6: Pain moderates the relationship between nurse presenteeism and patient safety

Methods

Design

A cross-sectional survey design was used.

Participants and settings

A nationwide sample of nurses working in high acuity settings was recruited. Non-random sampling methods were used due to the challenges in accessing nurses working specifically in high acuity settings. Recruitment initially began in January 2020. Due to the onset of the COVID-19 pandemic, the survey was initially closed in March 2020, as changes in work factors and the impact on data were unknown. The survey was then redistributed from August to September 2021.

A 30-minute online survey (see Appendix E) was conducted using Qualtrics, comprising the questions and validated instruments described below. Participants were offered the option to enter a draw to win a A$25 gift voucher. Each participant firstly completed demographic questions encompassing personal and work-related demographic factors. As well as this, nurses completed

measures of nurse presenteeism and health-related quality of life. A higher dropout rate and lower response rate were expected due to the length of this survey (longer than 10 minutes) (Sammut et al., 2021).

Participants were recruited via the Australian Nursing and Midwifery Federation social media channels, Flinders University social media channels (paid advertising) and organic snowball sampling.

Sample size

Our recruitment goals were informed by power analyses for the main structural equation model (Moshagen & Erdfelder, 2016). Specifically, we determine the required sample size needed to achieve a power of 0.90, given an alpha of 0.05 and a root mean square error of approximation (RMSEA) of 0.05, which indicates a good fit of a hypothesized model (Browne & Cudeck, 1993) Ref). The minimum sample size required to achieve such power was shown to be 147. Afterward, we determined that the actual power achieved with 166 participants was greater than 0.999. This study needed a minimum sample of 100 for conducting structural equation modelling (Anderson & Gerbing, 1984; Boomsma, 1982).

Materials

Personal and work-related demographic questions were used to collect data relating to Australian Health Practitioner Regulation Agency clinical work setting, age, gender, state, geographical setting (urban/suburban, regional/rural, remote), public or private organisation, staff management duties, living situation, caring responsibilities, type of employment (e.g. full-time, part-time, contract, casual), qualifications, and previous and expected length of service.

The **Job-Stress-Related-Presenteeism Scale (JSRPS)** (Gilbreath & Frew, 2008) was used to measure job-stress-related presenteeism recalled from the previous 4 weeks. Job-stress-related presenteeism occurs when, due to job stress, an employee is dedicating only a portion of their cognitive energy to their work (Gilbreath & Karimi, 2012). Nurses responded to six items (see Chapter 6 for further explanation of instruments used), on a 5-point Likert scale from ‘all the time’ (5)

to ‘never’ (1). Higher scores on this scale reflect higher levels of job-stress-related presenteeism. This instrument was scored by calculating the total mean score. The JSRPS showed good reliability (α=0.88).

The **Nurses Work Functioning Questionnaire (NWFQ)** (Gärtner et al., 2011) was used to measure presenteeism in terms of impairments in work functioning due to common mental health disorders. The NWFQ comprises seven subscales, measuring different areas of work functioning. The format of the response scales varied, including: 0 = ‘totally disagree’ to 6 = ‘totally agree’; 0 = ‘disagree’ to 4 = ‘agree’; 0 = ‘no difficulty’ to 6 = ‘great difficulty’; relative frequency categories (0 = ‘almost never’ to 6 = ‘almost always’; 0 = ‘almost never’ to 4 = ‘almost always’); and absolute frequency categories (0 = ‘not once’ to 6 = ‘in general more than once a day’). The summed item scores of the subscales range from 0 to 100 and were calculated as follows:

(sum of item scores × 100) / (number of items of the subscale × maximum item score)

(Gärtner et al., 2011). The NWFQ showed good reliability (α=0.89).

A significant limitation of current presenteeism research is the focus of existing measures on one specific type of presenteeism (i.e. sickness or stress). These measures do not take into account other reasons for presenteeism, and do not apply other known risk factors. Rainbow et al. (2019) suggests that a broader conceptualisation of nurse presenteeism can be achieved by employing a combination of presenteeism measures. Therefore, the NWFQ (Gärtner et al., 2011) and the JSRPS (Gilbreath & Frew, 2008) were both used. These validated tools, used together, enabled a broader and more holistic conceptualisation and measurement of nurse presenteeism in high acuity settings.

The **EuroQol (EQ-5D-5L)** is a generic instrument measuring health-related quality of life, and has been shown to be valid, reliable and responsive in numerous populations and conditions worldwide (EuroQol Group, 1990; Herdman et al., 2011). The EQ-5D-5L has five dimensions (mobility, self-care, usual activities, pain/discomfort, and anxiety/depression), each with five response levels (1 = no problems, 2 = slight problems, 3 = moderate problems, 4 = severe problems, 5 = unable to/extreme problems). The final question is the EuroQol Visual Analogue Scale

(EQ-VAS), which is a 0–100 scale where participants are asked to give a measure of their overall health on the day of survey completion. The EQ-5D-5L showed good reliability in the final model (α=0.78).

The **Hospital Survey on Patient Safety Culture (HSOPSC 2.0)** (Sorra et al., 2018) developed for the developed for the Agency for Healthcare Research and Quality (AHRQ), was used to measure nurses' perceptions of patient safety. Respondents were asked to rate their work area/unit on patient safety, and to rate the level of support received from their supervisor, manager, or clinical leader. The individual measures of this instrument had good reliability, varying from α = 0.62 to 0.85.

Data analyses

Statistical analyses were performed using Amos version 28 (Arbuckle., 2021). Hypothesis one was tested by a statistician using MPlus (Muthen & Muthen, 2020). Structural equation modelling was used to evaluate the proposed model of the study. Chi-square (χ^2) goodness of fit, relative χ^2/df and comparable fit indices, such as RMSEA (root mean square error of approximation), CFI (comparative fit index), SRMR (standardised root mean square residual) and TLI (Tucker–Lewis index), were used to evaluate the best model fit for the proposed model against the default model.

Validity and reliability

Using Anderson and Gerbing's (1988) two-step approach to structural equation modelling, we first evaluated the measurement models. Beginning with health-related quality of life (QoL), we conducted a confirmatory factor analysis (CFA) using a model with a single latent variable and all six QoL items as observed variables (i.e. mobility, self-care, usual activities, pain/discomfort, and anxiety/depression, and overall health rating). Overall, this model fit the data poorly: χ^2 (9)=49.09, $p<0.05$, χ^2/df=5.45, CFI=0.791, TLI=0.652, SRMR=0.095, RMSEA=0.164 (90% confidence interval [CI] 0.121–0.21). To improve the fit of the model and to refine the QoL scale, we removed the first two QoL items (mobility and self-care), which relate to aspects of QoL that have minimal relationship to the study population. From both a theoretical and empirical perspective, items three through six represent a more relevant and cohesive QoL construct. The shortened QoL scale adequately fit the

data: χ^2 (2)=2.61, p=0.271, χ^2/df=1.305, CFI=0.996, TLI=0.988, SRMR=0.022, RMSEA=0.043 (CI 0.00–0.166). Following that, we conducted a CFA on the JSRPS scale, with the six items loading on a single latent factor. The data adequately fit this model: χ^2 (9)=26.84, p=0.002, χ^2/df=2.982, CFI=0.972, TLI=0.954, SRMR=0.028, RMSEA=0.109 (CI 0.063–0.158), so no modifications were made. Finally, we conducted a CFA on the NWFQ scale, with the seven items loading on a single latent factor. The data adequately fit this model for the purpose of examination: χ^2 (14)=88.14, p<0.001, χ^2/df=6.296, CFI=0.89, TLI=0.83, SRMR=0.055, RMSEA=0.163 (CI 0.132–0.196), so again no modifications were made. In addition, we examined demographic variables (age, public or private workplace, and level of experience) as possible covariates. None were significantly associated with the scales evaluated so were therefore not included in the final model tested.

Finally, the bootstrap procedure of AMOS was used to obtain 95% confidence intervals (CIs) around parameter estimates (MacKinnon et al., 2007). Bootstrapping is considered a powerful resampling method for obtaining parameter estimates and confidence intervals when the variables are not assumed to be normally distributed (Yuan & Hayashi, 2003). We used bootstrapping with 2,000 samples and 95% bias-corrected CIs as recommended by Cheung and Lau (2008). Statistical detectable differences considered the recommendations of Wasserstein, Schirm, and Lazar (2019).

Results

Participant characteristics

A total of 368 surveys were returned online by Australian nurses working in high acuity settings (n=368). After data were cleaned, completed surveys were examined to identify univariate outliers, typographical errors and large amounts of incomplete data. Surveys with more than 20% of questions answered were included in the relevant analysis, if the minimum item requirements specific to each scale were completed in full (as per published instructions for each instrument). There were 202 surveys in which one or more survey instruments were incomplete; these surveys were not included in the final data. The final sample was 166, comprising 91.6% females *(*n=152)

and 8.4% males (n=14) (no participants reported identifying as non-binary). Participants were aged between 22 and 68 years (mean=44.28, SD=12.57).

Participants were asked about the organisation in which they worked, with 72% working for a public organisation (n=120), and 28% for a private organisation (n=46). In terms of management responsibilities, 42% of respondents (n=69) reported managing staff, while 58% (n=97) had no management duties. Length of nursing experience was also reported, with the average time working as a nurse being 19 years and 9 months (SD = 14 years and 1 month). Participants also reported how long they expected to work in this profession in the future. The average expected remaining length of service was 17 years and 5 months (SD = 12 years and 5 months). Over half of participants, 56% (n=93), reported having caring responsibilities outside of work. Demographic variables appear in *Table 6*.

Table 6. Demographic data and variables

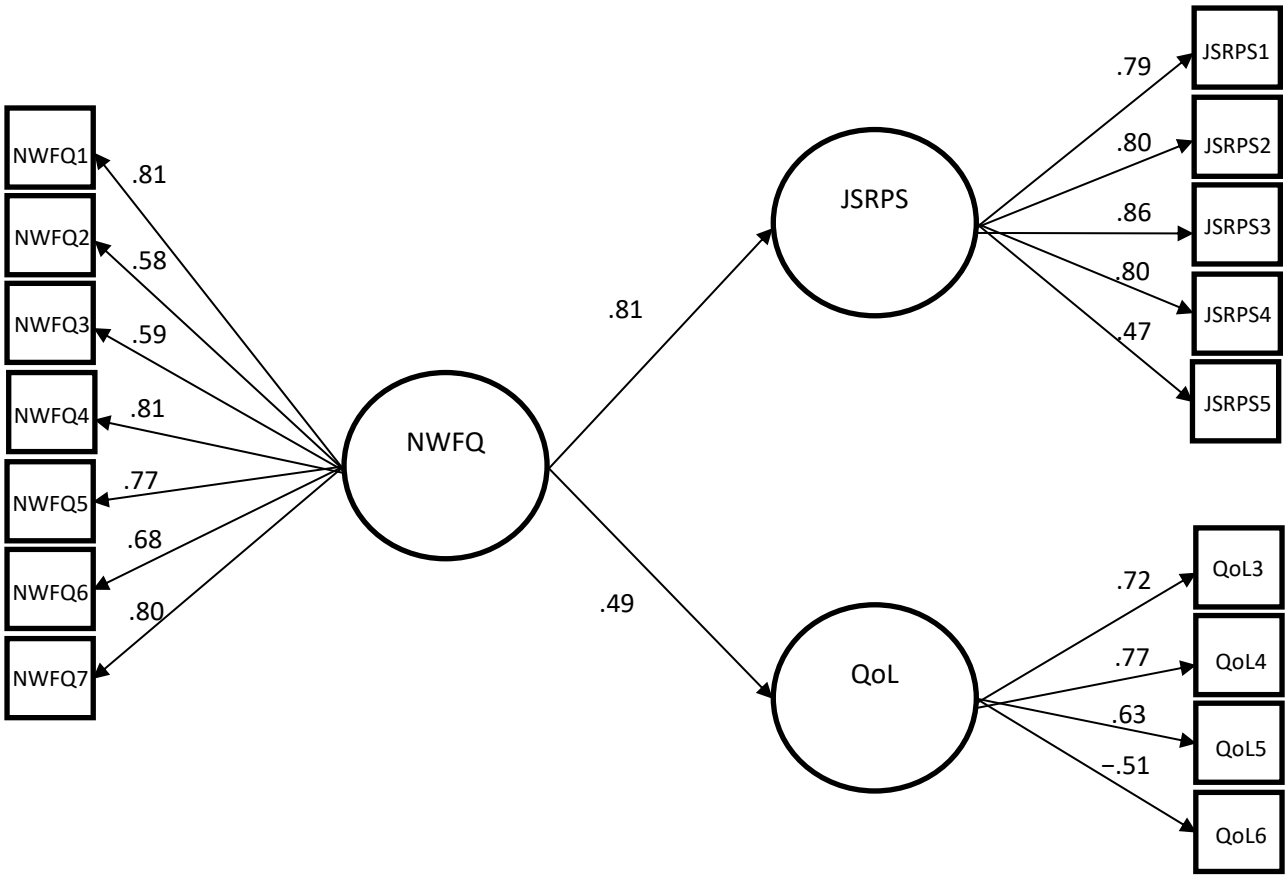
Variable	Item/Subscale	N	Min.	Max.	Mean	Std. deviation
Age (years)		166	22.00	68.00	44.28	12.57
Nursing experience (years)		166	2.00	49.00	19.73	14.10
Job-Stress-Related-Presenteeism Scale	Item 1	166	1	5	2.49	1.18
	Item 2	166	1	5	2.80	1.29
	Item 3	166	1	5	2.51	1.27
	Item 4	166	1	5	2.78	1.31
	Item 5	166	1	5	2.66	1.44
	Item 6	166	1	5	2.94	1.32
	Total mean score	166	6.00	30.00	16.21	6.37
Nurses Work Functioning Questionnaire	Subscale 1 (cognitive aspects of task execution and general incidents)	166	0.00	95.45	31.16	20.47
	Subscale 2 (impaired decision-making)	166	0.00	75.00	19.03	19.94
	Subscale 3 (causing incidents at work)	166	0.00	58.33	9.65	11.72
	Subscale 4 (avoidance behaviour)	166	0.00	87.50	26.38	19.98
	Subscale 5 (conflicts and annoyances with colleagues)	166	0.00	96.43	35.06	23.00

Variable	Item/Subscale	N	Min.	Max.	Mean	Std. deviation
	Subscale 6 (impaired contact with patients and their family)	166	0.00	68.75	24.30	16.45
	Subscale 7 (lack of energy and motivation)	166	0.00	96.67	35.34	23.98
EuroQol EQ-5D-5L	Dimension 1 (mobility)	166	1	4	1.71	0.92
	Dimension 2 (self-care)	166	1	3	1.30	0.55
	Dimension 3 (usual activities)	166	1	4	1.42	0.69
	Dimension 4 (pain/discomfort)	166	1	5	1.92	0.91
	Dimension 5 (anxiety/depression)	166	1	5	1.80	0.88
	Dimension 6 (overall health rating)	166	4	100	72.72	15.80
Hospital Survey on Patient Safety	Patient Safety Rating	166	1	6	3.27	1.14
	Supervisor support	166	1	6	3.60	1.19

Evaluation of the proposed model

We next tested the full hypothesised structural models. The model with all hypothesised paths and their respective standardised parameter estimates is presented in *Figure 7* to *Figure 13*. The model adequately fit the data: χ^2 (116)=281.24, p<0.001, χ^2/df=2.424, CFI=0.90, TLI=0.88, SRMR=0.06, RMSEA=0.093 (CI 0.079–0.106).

Figure 7. Standardised parameter estimates for the full, accepted structural model



All path and measurement coefficients are significant at p<0.01. Chi-square (N=166, df=116) = 281.24, p<0.001, χ^2/df=2.424, CFI=0.90, TLI=0.88, SRMR=0.06, RMSEA=0.093 (CI 0.079–0.106). Note: The lower scores on the EuroQol (EQ-5D-5L) instrument represent higher health-related quality of life.

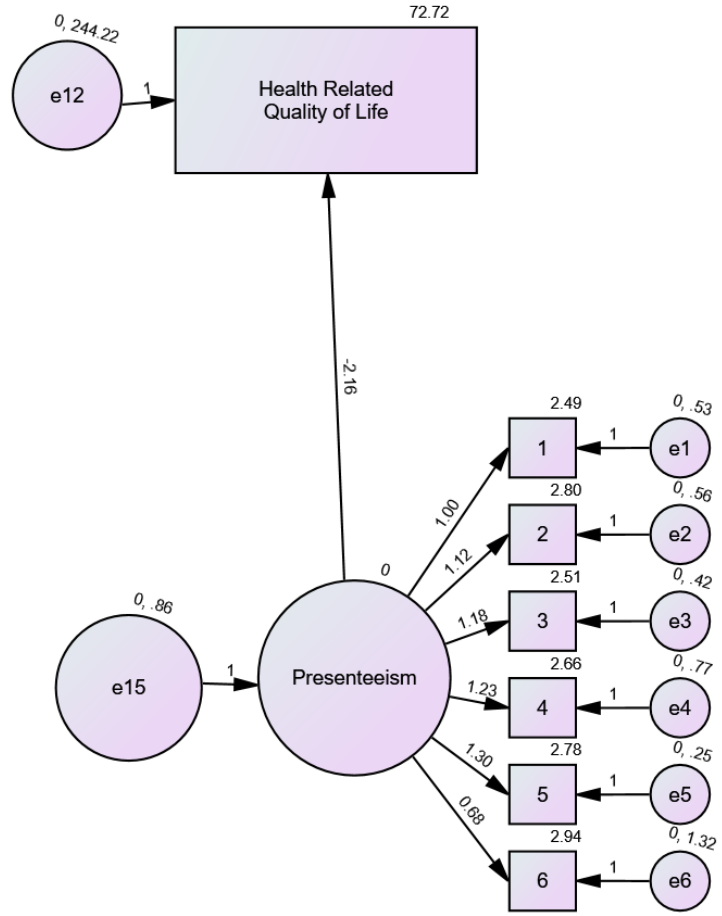
Hypothesis One

H1: Nurse presenteeism is significantly negatively associated with health-related quality of life

Results of the structural equation modelling analysis showed that higher levels of presenteeism with impairments in work functioning due to common mental health disorders (as measured by NWFQ) lead to higher levels of job-stress-related presenteeism and lower levels of health-related quality of life (note that lower scores on the EuroQol [EQ-5D-5L] instrument represent high health-related quality of life).

Direct Effect: The direct effect of Presenteeism on Health-related quality of life is -2.16 when Presenteeism goes up by 1, Health related quality of life goes down by 2.16. This is in addition to any indirect (mediated) effect that Presenteeism may have on Health-related quality of life. (p= 0.001) Refer to Figure 8.

Figure 8. The direct effect of presenteeism on health-related quality of life



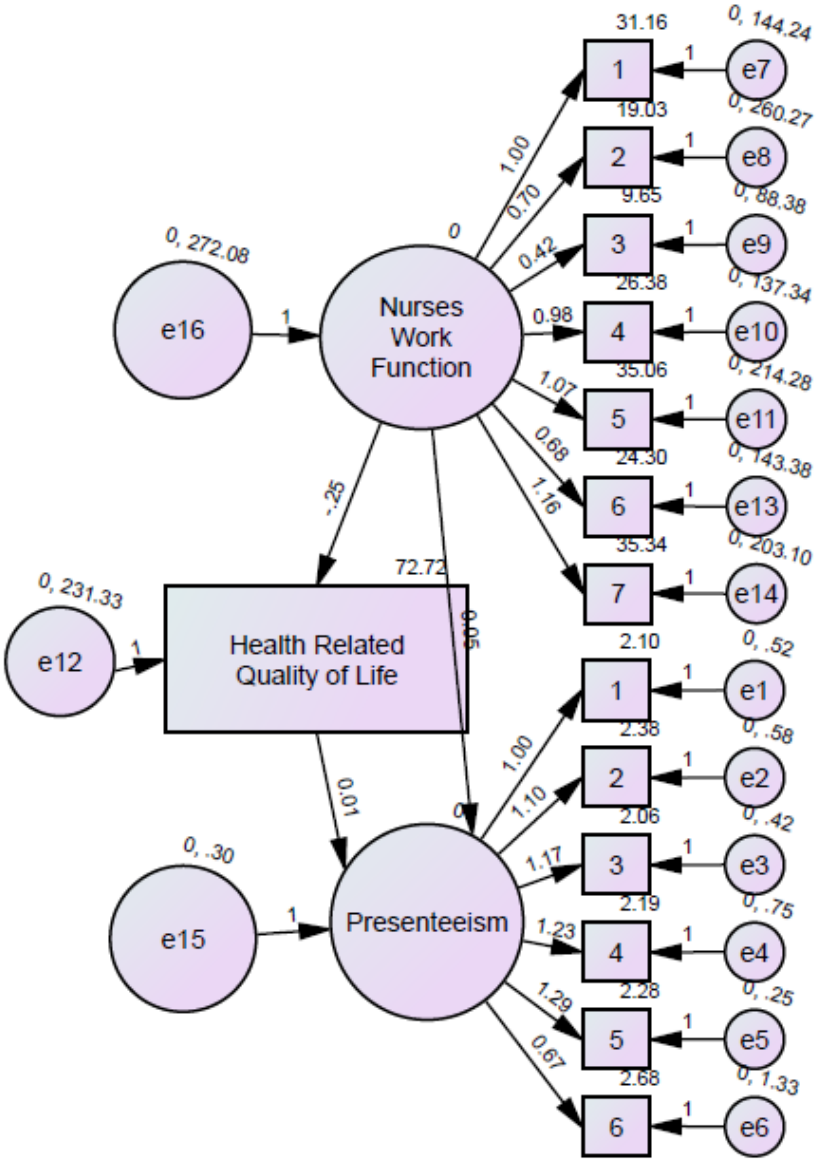
Hypothesis Two

H2: Health-related quality of life mediates the relationship between job-stress-related presenteeism and nurses work functioning.

The mediated effect of NWF on Presenteeism is -.023. That is, due to the indirect (mediated) effect of NWF on Presenteeism, when NWF goes up by 1 standard deviation, Presenteeism goes

down by 0.023 standard deviations. This is in addition to any direct (unmediated) effect that NWF may have on Presenteeism. This was not statistically significant (p=0.09) but showed a trend and requires a larger sample size to confirm the relationship. Refer to Figure 9.

Figure 9. The mediated effect of health-related quality of life on the relationship between job-stress-related presenteeism and nurses work functioning

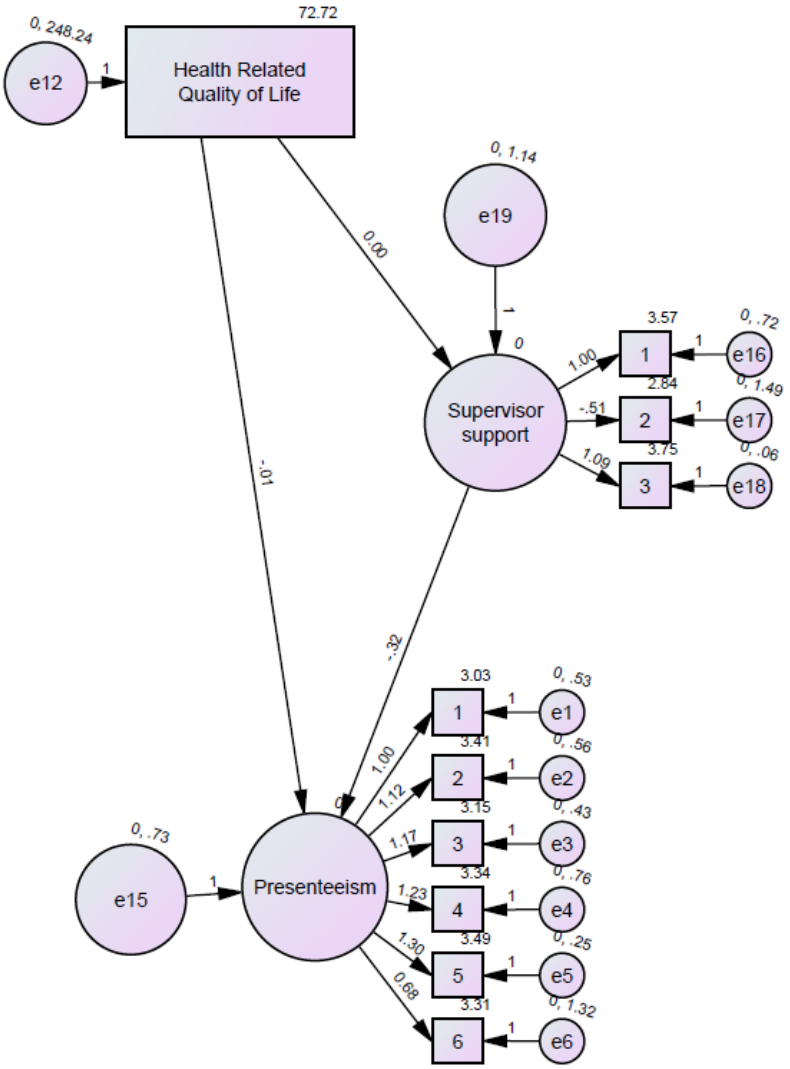


Hypothesis Three

H3: Supervisor support mediates the negative relationship between nurse presenteeism and health-related quality of life.

In terms of direct effect, when Supervisor Support goes up by 1 sd, Presenteeism goes down by 0.317 sd. In terms of a mediated effect using Supervisor Support as the mediating variable, as Health related quality of life goes up by 1 sd, Presenteeism goes up by 0.001. This was not statistically significant (p=0.68) but showed a trend and requires a larger sample size to confirm the relationship. Refer to Figure 10.

Figure 10. The mediated effect of supervisor support on the negative relationship between nurse presenteeism and health-related quality of life

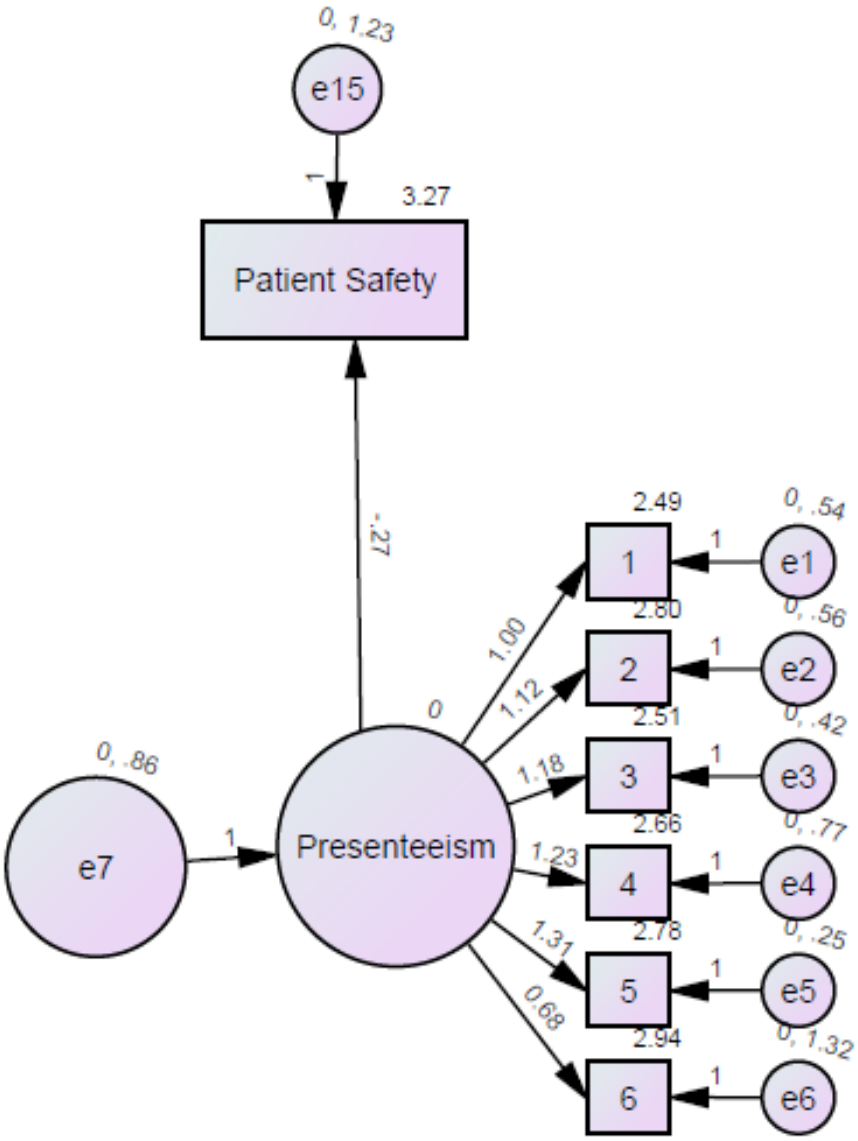


Hypothesis Four

H4: Nurse presenteeism is significantly negatively associated with the perception of patient safety.

The direct effect of Presenteeism on the perception of patient safety 1 is -.254. That is, when Presenteeism goes up by 1 sd, Patient Safety perception goes down by 0.254 sd. (Significant p = 0.013) Refer to Figure 11.

Figure 11. The direct effect of presenteeism on the perception of patient safety

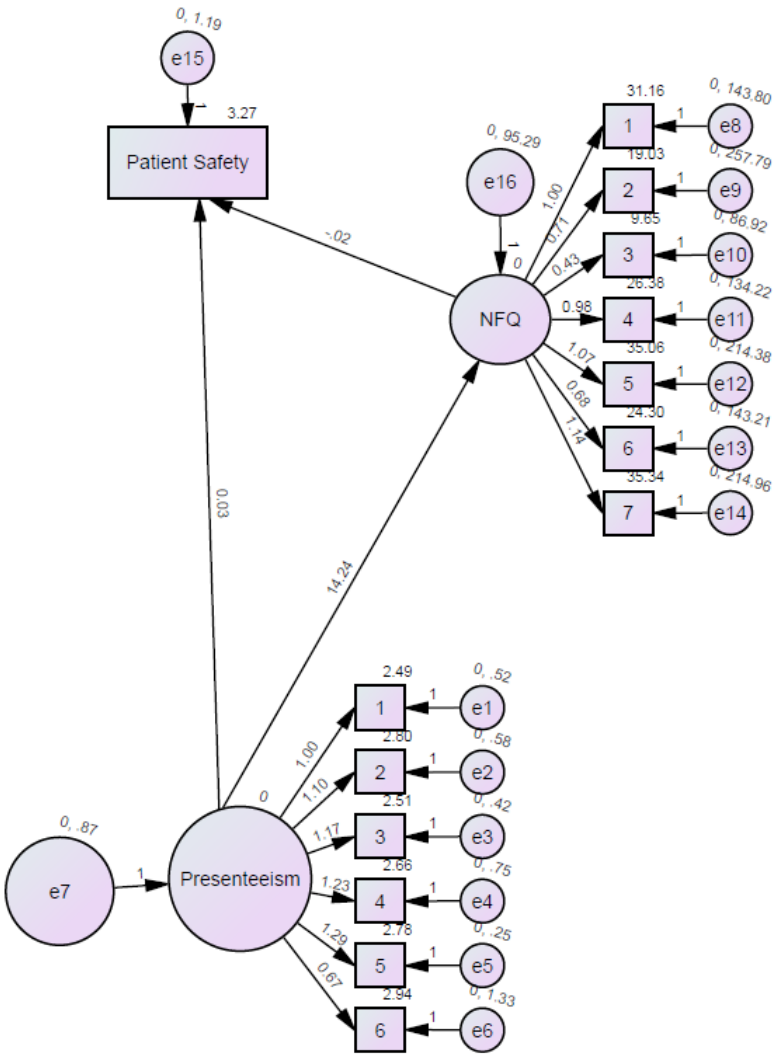


Hypothesis Five

H5: Nurse presenteeism mediated by nurses work functioning is significantly negatively associated with the perception of patient safety.

The mediated effect using nurses work functioning as the mediating variable, when Presenteeism goes up by 1, Perception of Patient Safety goes down by 0.297. (Significant p=0.043) Refer to Figure 12.

Figure 12. The mediated effect of nurses work functioning on supervisor support on the negative relationship with the perception of patient safety

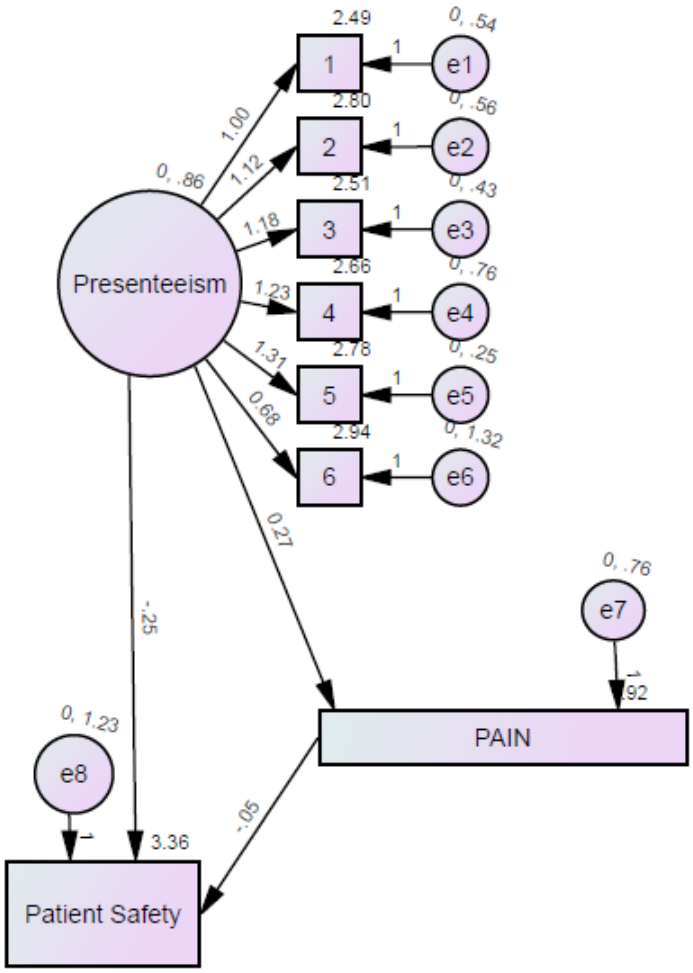


Hypothesis Six

H6: Pain symptoms moderates the relationship between nurse presenteeism and the perception of patient safety.

The moderating effect using pain (symptom) as the moderating variable: when presenteeism goes up by 1, the perception of patient safety goes down by 0.013. This was not statistically significant (p=0.56) but showed a trend and requires a larger sample size to confirm the relationship. Refer to Figure 13.

Figure 13. The moderating effect of pain on the relationship between nurse presenteeism and the perception of patient safety



Discussion

The results of this study exploring the link between presenteeism and health-related quality of life in Australian high acuity nurses indicate that higher levels of presenteeism are associated with lower health-related quality of life. Studies examining the associations between nurse presenteeism and health-related quality of life are rare; however, it has been widely identified that nurse presenteeism impacts numerous facets of personal and professional life, including physical and mental health, job performance and work productivity (Johns, 2010; Sun & Zhang, 2015).

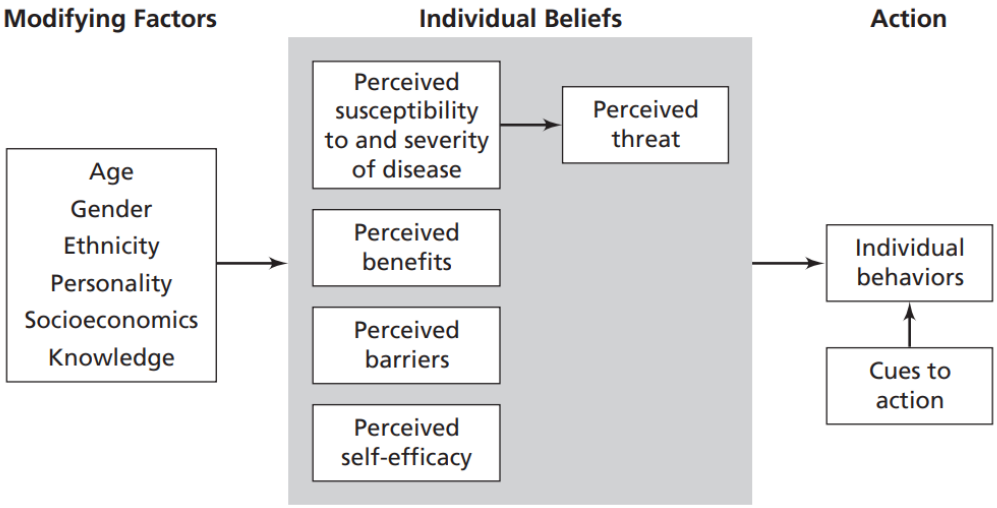
When considering nurse presenteeism and health-related quality of life, we need to firstly consider that nurses' perceptions of their own health and illness may be influenced by their exposure to sickness and the high acuity healthcare environment. Health knowledge is at the heart of nursing practice, and therefore nurses have higher health literacy than the general population (Nie et al., 2019). However, there is a higher incidence of presenteeism among the nursing population than among most other industries (Aronsson et al., 2000; Bergström et al., 2009). Nurses are frequently exposed to many different illness and infections; therefore, over time they may become desensitised to symptoms associated with common conditions. Further, as posited by Chambers et al. (2017), medical professionals have a very high threshold for recognising illness in themselves. A nurse might perceive their own symptoms or illness as not serious enough to warrant taking time off. If the culture of the unit is to continue working through illness, this behaviour may be perpetuated within the team.

Nurses also have a strong sense of duty and commitment to patient care. Enjoying work and experiencing feelings of pride, satisfaction and a sense of responsibility have been identified as reasons nurses attend work when ill (Çetin, 2016; Mlakar & Stare, 2013). A study of geriatric nurses reported that their perceptions of their illnesses as being not severe, or not aggravated by continuing to work, contributes to a rise in presenteeism (Fiorini et al., 2018). Another study by Fiorini et al. (2020) found that when nurses worked despite being sick, they worried less about their illnesses, indicating their illnesses affected them less than when they took time off work. This commitment may lead nurses to downplay their symptoms and push past discomfort to fulfil their responsibilities. Concern regarding adequate staffing and loyalty to colleagues may also mean that nurses continue

working despite feeling unwell (Fiorini et al., 2018). These key elements underpin the complex relationship between nurse presenteeism and perceptions of health and illness. These elements are theoretically demonstrated through the Health Belief Model (Janz & Becker, 1984), which is a widely researched model of health-related behaviour. The model (see Figure 14) presents health-related behaviour as being a result of a subjective evaluation process and implies the occurrence of presenteeism (Lohaus et al., 2021).

According to the Health Belief Model, workers gauge their health threats or dangers by assessing their own susceptibility to illness, and the severity of the illness. The subjective perception of health status and the tendency to work while unwell exhibit a strong statistical correlation (Miraglia & Johns, 2016). Thus, it is a logical inference that individuals who perceive themselves as less susceptible and generally more resilient, and who perceive their actual health issues as less severe, are more likely to engage in presenteeism than those who view these aspects less favourably. Additionally, in accordance with the Health Belief Model, individuals weigh the obstacles or costs associated with their actions against the benefits, including those to themselves, patients, co-workers and the healthcare organisation. Employees are likely to engage in presenteeism if they determine that, in the face of a reasonable health threat, the anticipated positive outcomes outweigh the expected negative consequences (Lohaus et al., 2021).

Figure 14. Health Belief Model components and linkages



Source: Champion and Skinner (2008)

Results from this study show that nurse presenteeism leads to lower health-related quality of life. While health-related quality of life is not well defined (Karimi & Brazier, 2016), in this study it was characterised as a multifaceted concept, and individuals' self-assessed health status was evaluated through a multidimensional categorisation framework.

The significance of health-related quality of life as a health outcome is acknowledged across various populations, including workers (Brooks, 1996; Wang et al., 2008). Health-related quality of life relates to an individual's satisfaction or happiness about elements of life that are impacted by health, encompassing both the effects of these elements on life and how health influences them.

Ensuring good health-related quality of life for nurses is crucial, as poor nurse health can decrease the quality and safety of patient care (Arimura et al., 2010; Wu et al., 2011). Lower health status in the nursing population is a risk factor for medical errors, which put patients at risk and increase costs to healthcare systems. Prioritising the improvement and maintenance of nurses' health-related quality of life would have positive effects on patient care, work engagement and healthcare system efficiency.

Results of this study suggest that the health-related quality of life of nurses plays a significant role in the relationship between job-stress-related presenteeism and work functioning. Nurses' health-related quality of life influences how job stress affects their ability to function at work. This means that if a nurse's quality of life is high, they can manage job stress more effectively, and function better at work. Conversely, if a nurse's quality of life is low, job stress reduces significant work functioning. Research by Yang et al., (2016) similarly found significant indirect effects between stress-related factors at work and presenteeism, and between individual factors and presenteeism, which were mediated by health. Another study conducted among medical staff in China during the COVID-19 pandemic found that work stress and presenteeism had a significant negative impact on task performance, while health status had a significant positive effect on task performance (Jia et al., 2022). This study also found that health status and presenteeism played a mediating role in the relationship between work stress and task performance. Improving nurse health-related quality of life is likely to reduce presenteeism and improve work functioning.

The findings from this study also suggest that supervisor support can mediate the negative relationship between nurse presenteeism and health-related quality of life. Supervisor support, in this context, refers to the assistance and encouragement provided by a supervisor to their staff. The research indicates that when nurses perceive their supervisors as supportive, it can moderate the negative effects of presenteeism on their health-related quality of life (Magalhães et al., 2022). This may be because supportive supervisors may provide resources or accommodations that help nurses manage their health, including episodes of illness or pain, while at work (Nelson et al., 2016). Supervisors have the power to foster a positive work environment that reduces stress and promotes well-being (Magalhães et al., 2022). Therefore, supervisor support is an effective way to improve nurses health-related quality of life to reduce presenteeism. This research presents an opportunity to support nurse managers to improve their range of supervision strategies, better understand local and national policies relating to occupational health and facilitate open and constructive conversation about nurse health concerns.

Findings from this study also suggests that nurse presenteeism is significantly negatively associated with nurses' perception of patient safety. When nurses continue to work while not fully present, it can lead to a decrease in the perceived level of overall patient safety for their work area. This finding is supported by Rainbow et al., (2020), who found significant negative relationships between job-stress presenteeism and patient safety outcomes, including lower rates of safety event reporting and decreased perceptions of patient safety. Presenteeism leads to decreased quality of care, and increased likelihood of patient falls, medication errors, and staff-to-patient disease transmission (Li et al., 2019).

This study also suggests that nurse presenteeism, when mediated by Nurses Work Function, is significantly negatively associated with the perception of patient safety. Nurses work functioning, in this context, refers to the experiences and tasks that are relevant to nursing. When presenteeism affects these work functions, there may be a negative impact on patient safety. Presenteeism leads to productivity loss among nurses (Li et al., 2019), which potentially leads to errors or oversights that compromise patient safety. Other research suggests that nurses' job-stress-related presenteeism is a significant factor contributing to decreased nurse performance, and the resultant risk to patient safety (Rainbow et al., 2020).

This research also presents findings which suggest that experiencing pain can moderate the relationship between nurse presenteeism and the perception of patient safety. A variety of chronic health conditions, including migraines, allergies, irritable bowel syndrome, gastroesophageal reflux disease, mental health issues, and musculoskeletal pain, have been identified as factors that can increase the risk of presenteeism (Schultz, 2007). Presenteeism is particularly concerning among individuals with musculoskeletal disorders who work in physically demanding jobs, as are most high acuity nursing jobs. This is because the body structures affected, such as muscles, tendons, and ligaments, may be more vulnerable to physical strain. This vulnerability can lead to persistent symptoms, predominantly pain, or may delay recovery.

In the health workforce, particularly among nursing staff, lower back pain is the most common musculoskeletal disorder(Eriksen, 2003; Failde et al., 2000; Gilchrist & Pokorná, 2021). When nurses

continue to work despite these pain symptoms, it can lead to presenteeism (Gilchrist & Pokorná., 2021). This presenteeism may negatively impact their perception of patient safety, as they may be less able to perform their duties effectively, leading to potential errors or oversights. However, the level of pain can moderate this relationship. This finding underscores the importance of addressing pain symptoms among nurses to ensure patient safety. It also highlights the need for healthcare institutions to implement strategies to manage presenteeism, such as providing adequate sick leave, promoting self-care, and offering support for pain management. The role of voluntary presenteeism for nurses living with a chronic health condition should also be considered, and is discussed below in more detail.

The negative impact of presenteeism has been widely recognised in the literature. Nurse presenteeism negatively affects healthcare systems, hospitals, nursing staff and patients (Dhaini et al., 2017; Letvak et al., 2012). Nurse presenteeism is a predictor of stress, burnout, exhaustion and common mental disorders (Sousa et al., 2023). Work culture, increased clinical workloads, and financial pressures from the economic downturn resulting from the global COVID-19 pandemic may promote the tendency for nurses to go to work while unwell or impaired. As highlighted by previous research, presenteeism can be endemic in workplaces that foster a culture of long working hours and stigmatisation of sick leave (Kinman & Grant, 2021).

However, as previously discussed, presenteeism may also have positive effects. Work in general can be beneficial for health and well-being (Miraglia & Johns, 2016). For many individuals living with a disability, employment enables social opportunities, routines and economic independence (Saunders & Nedelec, 2014). Evidence points to the need for organisations to adopt flexible policies and practices to support employees with fluctuating health conditions, as sick leave policies do not reflect the realities of working with such conditions (Holland & Collins, 2018).

The context in which presenteeism occurs should be considered by policymakers in the design of leave policies; policies need to recognise the distinction between voluntary presenteeism (individuals working with employers' support) and individuals being pressured to work when ill (Holland & Collins, 2018). Involuntary presenteeism, which may occur due to organisational pressure

or personal factors that make the consequences of absence too high, has many negative consequences. In contrast, voluntary presenteeism, with appropriate organisational support, can be beneficial to both employees and organisations (Collins & Cartwright, 2012). While challenging in a healthcare organisation, individualised workplace adjustments need to be developed and implemented to facilitate voluntary presenteeism. Presenteeism fluctuates over time and is experienced differently by individuals; therefore, organisational support relating to this should be individualised and flexible (Holland & Collins, 2018).

Organisational Support Theory (Eisenberger et al., 1986; Rhoades et al., 2001) posits that employees who feel supported and valued by their organisation tend to have more favourable perceptions of their work surroundings. This positive perception often corresponds to higher reported levels of job satisfaction among employees. Recent research by Lauzier et al. (2023) has corroborated the notion that the presence of depressive symptoms serves as a demonstration of the harmful consequences of presenteeism on employee well-being, particularly job satisfaction. This impact of depressive symptoms on employees' job satisfaction levels tends to fluctuate based on the extent to which they perceive support within their work environment. Workplace support in healthcare should not be underestimated, and nurse managers should understand how this can reduce presenteeism and increase work engagement – leading to better outcomes for patients and staff.

Identifying variables that impact nurses' health-related quality of life is difficult; therefore, the challenges involved with making tangible, valuable recommendations for clinical practice or health policy changes are significant (Oyama & Fukahori, 2015). However, protecting the mental and physical health of nurses is crucial. Evidence-based policies and strategies are urgently needed to support the physical, mental and emotional health of nurses, particularly since the COVID-19 pandemic (Chirico et al., 2021; Shaukat et al., 2020). Using evidence-based interventions to improve the health and well-being of health professionals promotes population health and enhances the quality and safety of care that is delivered (Melnyk et al., 2020). These strategies may also reduce the prevalence and impact of nurse presenteeism.

Creating a physically, emotionally and cognitively well nursing workforce is paramount to ensuring that current and future healthcare needs of the population are met. The increasing demands for healthcare combined with workforce shortages mean that prioritising nurse health is crucial. Presenteeism can negatively impact nurses, patients and organisations. However, it is important to consider the positive effects of presenteeism in future research. Considering policy changes to support voluntary presenteeism may benefit both nurses and organisations. Exploring the relationship between organisational policies and presenteeism is critical to enable a fundamental shift by organisations. Policymakers should consider the public health implications of presenteeism, particularly in healthcare. Policies relating to presenteeism are an opportunity to improve the overall productivity of the organisation, as well as the safety and well-being of staff and patients.

Limitations

This study has several limitations. Firstly, there were challenges in the recruitment process, which led to a small sample size. The sample is not representative, which prevents the generalisability of the findings. The COVID-19 pandemic occurred just four weeks after data collection had begun. Data collection had to be paused while the researcher focused on the personal and work-related demands of their own nursing practice. During this pause, considerations were made between the researcher and supervisor regarding the potential effects of the pandemic on the study. When data collection was resumed, recruitment occurred at an extremely volatile time, a time when high-acuity nurses were facing incredible challenges.

This pause and the subsequent adjustments may have introduced unforeseen variables that could have influenced the results. Additionally, the pandemic itself could have affected the participants' responses, further complicating the interpretation of the findings.

Despite these limitations, this research provides valuable insights and lays the groundwork for future studies in this area. The findings from this study can inform the design and implementation of future research, taking into account the lessons learned from the challenges faced in this study. Suggestions for future research include repeating this study with a larger participant group and using a longitudinal study design.

Conclusion

The research findings collectively suggest that nurse presenteeism has significant implications for both the nurses themselves and the patients they care for. Presenteeism is negatively associated with health-related quality of life and the perception of patient safety. However, these relationships are not straightforward and are influenced by several mediating and moderating factors. The impact of presenteeism on patient safety can vary depending on how well a nurse is able to perform their duties despite being unwell. Supervisor support and health-related quality of life also play crucial roles in mediating the effects of presenteeism. Supportive supervisors can help mitigate the negative effects of presenteeism on nurses' health-related quality of life. Similarly, a high health-related quality of life can buffer the impact of job stress on nurses' work functioning. Pain symptoms, on the other hand, moderate the relationship between presenteeism and the perception of patient safety.

These findings highlight the complex interplay between presenteeism, work functioning, supervisor support, health-related quality of life, and patient safety in the nursing profession. The results demonstrate that increased levels of presenteeism, driven by impairments in work functioning due to common mental health disorders, correspond to increased job-stress-related presenteeism and a reduction in health-related quality of life.

While research about the relationship between nurse presenteeism and health-related quality of life is limited, the broader literature has consistently highlighted the far-reaching impact of nurse presenteeism on both personal and professional spheres, encompassing physical and mental well-being, job performance and workplace productivity. It is imperative to acknowledge that nurses, owing to their advanced health literacy and consistent exposure to sick patients, might inadvertently trivialise their own health concerns, thereby perpetuating a culture of presenteeism within their teams. Factors such as a strong sense of duty, commitment to patient care, and concerns about staffing shortages further contribute to this behaviour.

The Health Belief Model underscores the significance of individual perceptions regarding susceptibility, illness severity and the cost–benefit analysis of presenteeism, and it offers a

theoretical foundation to explain the complex interplay between nurse presenteeism and health perceptions.

The results of this study also underline the detrimental impact of nurse presenteeism on health-related quality of life. While the concept of health-related quality of life is multifaceted, encompassing both self-assessed health status and its multidimensional impact on life, it remains a crucial health outcome for both individuals and healthcare systems. This research shows that presenteeism results in poor nurse health, which is known to compromise the quality and safety of patient care, leading to medical errors and increased healthcare costs.

Recognising the factors that influence nurses' health-related quality of life is a complex task, yet the imperative to safeguard the mental, physical and emotional health of nurses cannot be overstated. Evidence-based policies and strategies aimed at supporting the holistic well-being of healthcare professionals, particularly in light of the challenges posed by the COVID-19 pandemic, are urgently needed. These strategies have the potential to mitigate the prevalence and consequences of nurse presenteeism.

While the adverse effects of presenteeism are well documented, it is crucial to acknowledge that, under certain circumstances, presenteeism may be beneficial, particularly when it arises from voluntary choices supported by organisations. The distinction between voluntary and involuntary presenteeism must be recognised, and organisational policies should be flexible enough to accommodate the former while mitigating the latter. Employee support within the workplace, as posited by Organisational Support Theory, plays a pivotal role in mitigating the adverse consequences of presenteeism, impacting job satisfaction and overall employee well-being.

In the ever-evolving landscape of healthcare, nurturing a healthy and resilient nursing workforce remains a priority. The growing healthcare demands, coupled with workforce shortages, emphasise the need to prioritise nurse well-being. Presenteeism, while in many cases detrimental, also presents opportunities for positive outcomes that should be explored in future research. Policy changes aimed at fostering voluntary presenteeism may offer benefits not only to nurses but also to healthcare organisations, thereby enhancing the productivity, safety and overall well-being of staff and patients.

Policymakers should recognise the broader public health implications of presenteeism, particularly within the healthcare sector, and work towards comprehensive solutions that elevate both staff and patient care.

Chapter summary

Chapter 5 explored the associations between nurse presenteeism and health-related quality of life among Australian high acuity nurses. Chapter 6 presents results from the qualitative phase of this research.

CHAPTER 6: QUALITATIVE RESULTS

An Australian qualitative study of nurse's experiences of presenteeism and work-life conflict in high acuity settings

Chapter overview

Chapter 6 presents the qualitative component of this research. It presents the background, research aim, research methods and methodology. The chapter proceeds to details of the data analysis, the measures taken to ensure research quality, and the findings, followed by a discussion and conclusion.

Abstract

Introduction: What are Australian high acuity nurses' experiences of presenteeism, caring responsibilities and methods of coping? There is limited qualitative evidence exploring the experiences of presenteeism among nurses in Australian high acuity settings. Our aim was to understand experiences of nurse presenteeism, the impact of presenteeism on caring responsibilities, and how nurses cope with these issues.

Methods: A qualitative descriptive design was used for this study. Qualitative descriptive analysis of free responses to survey questions was used to explore Australian high acuity nurses' experiences of presenteeism.

Results: Three main categories were identified from the data: 1) work-life conflict; 2) work-life impact: the cycle of presenteeism; and 3) protection and coping.

Conclusion: Work-life conflict contributes to presenteeism. This research raises awareness of the issues facing nurses working in Australian high acuity settings. Nurses in these settings face significant mental, physical and emotional professional and personal demands, which have been exacerbated by the COVID-19 pandemic. These challenges could potentially impact the recruitment and retention of nurses due to their negative effects on the health of nurses. There is a need for

organisations to rethink leave policies, better support employees and raise awareness around work-life conflict and presenteeism.

Introduction

Nurse presenteeism is defined as ‘physical presence at work when one should not be due to one’s health and wellbeing, stressful work environment, lack of work–life balance, or sense of professional identity or obligation’ (Rainbow & Steege, 2017, p. 615). In other words, presenteeism occurs when a nurse comes to work despite not feeling well, or not being able to perform their job to their full capacity. This can result in decreased job performance, increased risk of errors, and spread of illness in the workplace.

Nurse presenteeism is a critical area of enquiry, given its potential influence on the health and safety of both nurses and patients. The health and well-being of the nursing workforce contribute to safe and effective patient care (Dyrbye et al., 2017; Hall et al., 2016). Nurses are required to work effectively in environments with limited resources, while still ensuring safe, ethical and culturally sensitive care is provided. Engagement in patient care is negatively affected by episodes of poor nurse health or impairment. Also contributing to reduced job capacity is the frequently changing nature of healthcare, fatigue related to shift work, and pressure to balance work and personal life (AlAzzam et al., 2017; Mcdonald et al., 2016). Presenteeism in Australia is expense, costing the economy approximately A$34.1 billion per annum (KPMG, 2011).

Nurse presenteeism is a feminist issue, as women comprise more than 80% of the nursing workforce (NMBA, 2021b). Historically, women in particular have been encumbered with caring responsibilities, including caring for children, the elderly and the sick. This burden has often led to women being excluded from paid work or being forced to take on part-time or flexible work that is poorly paid and lacks job security. This, in turn, has contributed to the gender pay gap, as well as to the overall devaluation of care work as a profession.

It is therefore women who are often affected by the expectation to come to work despite not feeling well. While presenteeism is often discussed in terms of physical presence in the workplace,

there is also a phenomenon known as ‘implicit’ presenteeism that can have similar effects. In the case of women with caring responsibilities, implicit presenteeism can occur due to the mental, physical and emotional toll of parenting, the majority of which falls on women.

While there has been increasing attention, time and resources spent on presenteeism research, particularly in healthcare, the link between nurse presenteeism and caring responsibilities needs to be explored. The role of caring responsibilities and how this can impact the working lives of nurses and their capacity to engage in a fulfilling and financially rewarding career is an important issue within feminist discourse. By exploring nurses’ experiences, we can identify current challenges facing nurses working in Australian high acuity settings.

Aims

The aim of this study was to explore Australian high acuity nurses’ experiences of presenteeism.

Methods

Design

A qualitative descriptive design was used for this study. Content analysis was used to analyse responses to open-ended survey questions (Hsieh & Shannon, 2005; Mayring, 2019), to explore Australian high acuity nurses’ experiences of presenteeism. These open-ended questions were interspersed throughout quantitative survey questions (as detailed in Chapter 5), providing participants with an opportunity to clarify survey responses, share experiences or provide any other information they deemed relevant. Participants were able to provide as little or as much information about their experiences as they wanted.

Methodology

As discussed in Chapter 4, the theoretical foundation of this research is feminist pragmatism. Nurse presenteeism emerges as a feminist concern due to the predominance of women in the nursing profession. The historical female composition of nursing makes it a context well-suited for feminist theoretical analysis, as established by Burton (2016). Mollard (2015) has illustrated that

feminism, as a theoretical framework, offers a valuable perspective for investigating issues related to women. It enables researchers to delve into, recognise and tackle challenges that women encounter, a practice deeply ingrained in the field of nursing research (Im, 2010).

The foundation of this feminist pragmatist research aligns with the researcher's philosophical and knowledge assumptions. From the initial stages of planning this study, a pragmatic approach was selected, guided by the principle of adopting the most effective methods. However, the researcher's feminist pragmatist viewpoint is shaped by natural immersion in this subject, drawing from personal experiences as a nurse, mother and researcher. The researcher aimed to explore the experiences of participants, to give voice to the issues facing nurses in Australian high acuity settings.

Data collection

Qualitative were collected during the same 30-minute online survey (see Appendix E) described in Chapter 5. Open-ended questions were placed at regular, strategic intervals (a total of 10 times) throughout the quantitative survey instruments: the Job-Stress-Related Presenteeism Scale, the Nurses Work Functioning Questionnaire, and the EuroQol EQ-5D-5L. This was to enable participants to express their views, attitudes and perceptions relating to nurse presenteeism. Each open-ended question had the same format: 'I wish to explain my response', after which a free text box was situated.

Nurses working in South Australia, New South Wales, Queensland, Victoria, Western Australia, Tasmania and the Northern Territory completed the survey. From the 368 participants who completed the survey, a total of 343 qualitative responses were recorded.

Data analysis

Data were first exported into NVivo (QSR International, 2020) to facilitate organisation of the large amount of qualitative data that the survey yielded. Qualitative responses were analysed using conventional content analysis methods to identify nurses' experiences of presenteeism in high acuity settings. Codes and categories were developed by inductive analysis of the data, a technique used when existing literature on a phenomenon is limited. This technique is suitable for this research study

due to the lack of qualitative data on nurse presenteeism (Freeling et al., 2020). No preconceived codes or categories were used during analysis, but were developed through thorough examination of the data. Analysis was guided by a three-stage approach (Krippendorff, 2018). First, the data were thoroughly read to encourage immersion in the participants' words and experiences. Initial codes were then developed and discussed with the research team; responses were compared and discussed to arrive at the final coding scheme. The patterns and relationships that emerged from the data were identified and explored. The final categories were labelled and defined as themes and subthemes. A key was developed so that presentation of qualitative findings was clearly explained, and exemplars could be easily linked back to original transcripts. Coding was undertaken with participation and guidance from research supervisors who are skilled in qualitative research analysis techniques.

Rigour

Ensuring trustworthiness in qualitative research encompasses credibility, confirmability, dependability and transferability (Lincoln & Guba, 1985). In this study, several techniques were used to increase trustworthiness. Data and the resulting codes were checked by second and third researchers, who are experienced in qualitative research. Nurses were recruited from many hospitals and clinical settings around Australia, to ensure transferability. While qualitative research cannot be generalised to all contexts or individuals, this research yielded many in-depth responses to the open-ended survey questions. This means that a broad range of participant responses were included in the qualitative dataset, representing a range of people with different sociodemographic characteristics.

Findings

Of the nurses who completed this survey, 270 reported their age. The average age was 42 years; the youngest participant was 22 years and the oldest 69 years old. All participants reported their gender: 91% (n=253) identified as female, 9% (n=24) as male, and 1 participant identified as non-binary. In terms of geographical location of workplace, participants were spread across seven

Australian states and territories, the majority in South Australia (n=108; 39%), New South Wales (n=52; 19%), Queensland (n=42; 15%) and Victoria (n=36; 13%). Geographically, 197 participants (71%) worked in an urban/suburban setting and 75 (27%) working regionally/rurally, while six participants (n=6; 2%) worked in a remote setting.

All participants specified the specific clinical area in which they worked: 79 nurses worked in perioperative settings (28%), 72 in intensive care (26%) and 54 in the emergency department (19%). The remainder of participants (n=73; 26%) reported working in other high acuity settings, including recovery/post-anaesthesia care unit, paediatric settings, trauma, and nurse manager positions.

The main categories identified from the data were: 1) work-life conflict; 2) personal and organisational impact: the cycle of presenteeism; and 3) protection against presenteeism. Categories, subcategories and exemplar quotes are presented in Table 7.

Table 7. Categories, subcategories and exemplar quotes

Category	Subcategory	Exemplar	Number of references from data
Work-life conflict	–	My role as a mother does not allow me to properly rest prior to my shifts, therefore dealing with this constant high level of stress in the workplace has certainly impacted on my attitude towards my workplace.	63

Category	Subcategory	Exemplar	Number of references from data
Work-life impact: the cycle of presenteeism	Excessive workload	There are times when the workload is enormous and dealing with awake patients and concerned family members can be very challenging. The environment is stressful due to the acuity and complexity of patient condition, as well as the managerial structure, the approachability and presence of medical staff, and the lack of resources in my hospital. All of this takes its toll on the quality and safety of my work, as well as my satisfaction with my work.	34
	Illness and fatigue	It takes great effort and much energy to 'switch on' your empathy, patience, critical thinking, problem solving etc. It is like trying to concentrate through a fog and can change like the shifting of the breeze.	16
	Aggressive patients	Abuse and bullying against nurses are unacceptable yet prevalent issues in the healthcare industry.	10
	Inadequate staffing	[The] cumulative effects of low staffing and high patient acuity lead to mistakes and an inability to be present with patients.	15
Protection and coping	–	[I] believe work stress is part of the challenge of caring. In nursing, it is the way we learn and experience by deal[ing] with each situation that get us through. In other words, we ride each wave of any situation to accomplish success and learn.	59

Work-life conflict

> *My role as a mother does not allow me to properly rest prior to my shifts, therefore dealing with this constant high level of stress in the workplace has certainly impacted on my attitude towards my workplace.*

In this section, accounts are presented that explain nurses' experiences of presenteeism in relation to caring responsibilities and work-life conflict. Feelings of guilt, loyalty to family, and the need to earn an income despite not being fully present at work emerge throughout this category. These accounts contextualise nurses' experiences of presenteeism and work-life conflict. These experiences precede the impact of these experiences, and coping mechanisms used by participants in response.

Ninety-four (n=94) respondents said that their caring responsibilities affect their capacity to work. One participant explained that their '*capacity to work is now limited to 3 days per week',* while others said they work part-time *'so I can fulfil all my [caring] responsibilities'* and *'so I can make it for school pick-ups etc'.*

> *I cannot work [full-time] as work particularly [operating theatre] hours, plus long commute time … means that I'm away from home in excess of 12 hours per day. As a parent I need to see my child sometimes and I wouldn't if I worked full-time.*

Many participants explained the reasons for care responsibilities affecting their work, stating that sick children, school activities and commitments, and fatigue and burnout affect work. The impact of having caring responsibilities '*lead[s] to tiredness and burnout*'. One participant explained that '*children being unwell means no childcare',* and others described the impact of unwell children:

> *The kids are always sick from daycare, so someone has to take time off. It's a circle. Also … I'm always tired. Like ALWAYS.*

> *Yes, it can [affect capacity to work], particularly if children are sick or there is a pupil-free day.*

Nurses described how caring for a sick family member or dependant leads to presenteeism. Sick leave was often taken to care for the child or relative, and the number of days of paid sick leave was not sufficient. Participants described their experiences of how caring responsibilities impact their work in many ways:

My role as a mother does not allow me to properly rest prior to my shifts, therefore dealing with this constant high level of stress in the workplace has certainly impacted on my attitude towards my workplace. I do maintain to strive to deliver safe and thorough care to my patients at all times.

At times it is necessary to attend appointments during part of my workday, with my wife, so she can receive treatment or consultation. This time away from my job can cause a backlog of work responsibilities, contributing to stress and anxiety. If my wife requires more care than usual, lack of adequate sleep can make my employment workload seem heavier.

Several participants explained that being a single parent presented further challenges, including financial pressure to earn an income. This position as sole income earner for the household conflicted with the energy required to provide support as a parent during difficult times.

I am stressed because my teenage son is being very very difficult to manage and is engaging in self-harming activities but I'm a single mum and I have to work for the money as I have nobody I can rely on financially or for help with him. Every time I leave him I worry.

I get tired working full-time as a single mum with a tricky kid and a high-pressure job.

One single parent also described the challenge with completing further study to gain a post-graduate qualification.

I am currently studying for my Master of Nursing while working full-time and being a single mother. This has also been affecting me.

Also discussed was the cost of working, to family members and other aspects of personal life. The conflict between caring responsibilities and being fully present at work was cyclical, with many participants explaining how one impacted the other:

I deliver good care, but it costs me almost everything I have. Then you have nothing left for your family or friends or life outside of work.

Participants described feeling like the majority of their energy was expended at work, impacting home life negatively. One participant described how family members are often impacted and '*cops my lack of interest, patience and energy because I'm all used up at work'.* Another participant explained the impact on work, explaining that '*tiredness or stress in the home and outside life*

occasionally impacts my mood and enthusiasm'. Guilt and failure to uphold parenting values was also articulated:

> *[I am] failing to be the best parent because double shifts are expected. My children are so use[d] to it they message me and ask if I'm coming home tonight, not what time do you finish.*

Work-life impact: the cycle of presenteeism

Several subcategories emerged that demonstrate the impact of work-life conflict, and participants' experiences of the cycle of presenteeism. Excessive workload, illness and fatigue, aggressive patients, and inadequate staffing all contributed to presenteeism, thus exacerbating this phenomenon. These subcategories negatively impacted participants on both a personal and organisational level.

Excessive workload

> *There are times when the workload is enormous and dealing with awake patients and concerned family members can be very challenging. The environment is stressful due to the acuity and complexity of patient condition, as well as the managerial structure, the approachability and presence of medical staff, and the lack of resources in my hospital. All of this takes its toll on the quality and safety of my work, as well as my satisfaction with my work.*

Participants presented accounts of the increased or impossible workload of nursing in high acuity settings throughout the data. One nurse explained that '*the underpaid and overworked nurses are crying for help'*, while another had just resigned *'due to unreasonable workload'*. It is apparent that nurses are frustrated, tired and are often unable to '*give the care I want to give'* due to *'increased workload and demands'*. The impact of the COVID-19 pandemic on workload was expressed by one participant returning to work from maternity leave:

> *Returning to work in a busy emergency department whereby the number of patients consistently exceeds our capacity, from maternity leave, has made me feel physically, mentally and emotionally exhausted after a shift.*

The increased demand on nurses was expressed by one nurse, stating '*I have worked nine double shifts at over 16-hour lengths in the last month*'. Another participant described the '*continual over work, no breaks, poor management from executive and government, along with unrealistic*

patient expectations and demands'. These increased demands force nurses into dangerous situations, where the '*increased workload has caused me to cut corners and not do things to usual high standard*'.

Participants who worked as nurse managers reported conflict between giving patient-centred care and performing their managing role effectively. One participant explained the challenge with having a management role combined with the increased workload demands:

> *It is difficult to balance the demands of these roles on top of usual workplace stress in a workplace with a notoriously poor patient safety culture and resistance to quality improvement. We simply don't have the time or resources to perform to the standard that we need to and would like to.*

One participant said the workload was so excessive that they '*rarely get to a patient'*. The unreasonable expectation to *'work to fill in vacant shifts or sick leave as well as complete my own workload*' was also shared. Other nurse managers said:

> *I find I do not have enough allocated time to do the management role efficiently or effectively. I am usually able to work effectively to a high level when in the clinical role.*
>
> *I am unable to complete my managerial workload without undertaking a considerable amount of overtime for which I am not compensated.*

Participants also shared experiences of unmanageable workload, due to management, clinical setting and organisation type:

> *The managers above me do not understand the stress that imparts on myself especially as they do not have the clinical skills to complete the ED work*
>
> *Working in a busy private hospital can be challenging to give your all and sometimes you feel rushed, especially with patients that you know are scared and just need reassurance and comfort.*
>
> *We face daily pressures in the perioperative department. These pressures come from management and surgeons, who sometimes compromise patient safety in order to work faster. This can make it difficult to advocate for our patients and their safety.*

The impact of this excessive workload affected participants in various ways. From having '*so much going on that one can lose track of tasks or forget things*', to working '*on average an extra 20–*

30 hours a week including time at home on weekends', nurses are under immense pressure. One participant explained that they '*push [themselves] too far on a daily basis, so the workload gets accomplished*'. One participant explained that work was '*pretty easy most of the time, however increased demand and workloads can see areas of practice become affected*'. The pressure to '*do more*' is affecting nursing practice. One such area being affected by workload is the way '*demanding*' or '*aggressive*' patients are dealt with:

> *Most overworked nurses were most likely to be irritable and becoming emotionally upset to demanding patients. It is may[be] due to short staff ratio and which elder abuse may seem associated with understaffing due to managing impossible workloads.*
>
> *Sometimes due to time limits, high patient load and no break I find I'm not as sympathetic with some patients and cannulate quickly, not as gentle. I'm not as soft with aggressive clients and short with rude demanding patients.*

Many participants cited increased workload and the associated time restraints as causing near-miss incidents. One patient described how near-miss incidents occur: *'because I did not have enough time to thoroughly explore the patient's conditions*'. Errors of omission, due to time restraints, were also a concern to participants:

> *I am a diligent nurse, however, time and workload constraints lead to most of the errors; usually errors of omission, where something isn't done because there simply weren't the staff to do it/priorities were elsewhere.*

Paperwork and other tasks were also often missed, with participants explaining that '*if I take time to do tasks there's no time to complete paperwork*' and '*paperwork is often not completed thoroughly due to workload pressures*'. This was reiterated by another participant:

> *I don't have time to follow up on paperwork or chase up recalls or liaise with other services which I desperately need to do, I don't think I will ever get on top of my workload because management make it horrible to work there and staff don't last more than a few months out there.*
>
> *When performing circulating duties on rapid turnaround cases, there is often not time to complete documentation appropriately which I find incredibly stressful.*

Overall, nurses are stretched in terms of time and resources. Workload demands have become excessive due to the COVID-19 pandemic placing strain on an already overworked nursing workforce. Poor skills mix, poor management and insufficient staffing were also raised by participants as concerns:

> *Understaffed, poor resources and management have adopted team nursing in a critical care space meaning we are looking after seven patients at once, which is hard to spend time with the patient and keep track of what's been completed.*

> *My ability to work consistently, and without difficulty, is dependent on the varying workloads I'm required to undertake, and the influence of the varying skill levels of other staff. Managerial interference and ignorance of the working process is also a contributing factor.*

Participants explained the moral distress and frustration they experience due to the workload demands. One participant expressed '*I could do more for [my patients] if I had more time'*. Another explained that '*I have a responsibility not to but sometimes I wish I could take short cuts or just give up'.*

Illness and fatigue

> *It takes great effort and much energy to 'switch on' your empathy, patience, critical thinking, problem solving etc. It is like trying to concentrate through a fog and can change like the shifting of the breeze.*

> *[I] just want the shift to be end, I know I'm not 100% and I need to leave before my patients and their family see how tired and mentally and emotionally drained I am.*

This section presents accounts that explain nurses' experiences of illness and fatigue, and how this can lead to not being fully present at work. The above accounts capture the overwhelming feeling of fatigue that nurses often experience. While our data demonstrate various forms of presenteeism, reports of fatigue and illness were common. As with all categories in this study, a complex picture is drawn from the exploration of nurses' experiences. Nurses described how they were feeling at work, with one nurse saying they are '*perpetually exhausted*', with another saying '*[I] can't sleep as too much going on in my brain*'. Other nurses described their experiences:

> *… fatigue, tiredness makes it extremely hard to get motivated, it is a big mental challenge.*

Whilst I have a very good capacity for decision-making, I am suffering from considerable decision fatigue.

I'm stressed, I'm tired and I have to make decisions – it's scary.

In detailing their experiences of presenteeism in high acuity settings, nurses revealed workplace factors that contributed to fatigue, thus often leading to presenteeism:

Late early shifts reduce how alert I am at work, no matter how much coffee I've had. Sometimes I feel really ill, but it's way too late to call in sick, so I just suck it up and get on with it. Also being on for 7 days straight make[s] me seriously reconsider my career and just my empathy is non-existent.

I think general fatigue from constant shift swaps from nights to late early shifts make it difficult sometimes to be completely present. Being so tired yourself can be quite draining but I still think most of the time I can work through it.

The cycle of presenteeism created due to illness was discussed by participants. Attending work despite being ill, fatigued or injured led to presenteeism. One nurse said they *'attended work with pain in both wrists, to pay bills and live'*. Another nurse said that the difficulty they experienced in carrying out their job was due to being pregnant and experiencing bad morning sickness. Other nurses shared their experiences:

I have been unwell for the past month and been at work a total of 3 days. I found it difficult to come back to work after being ill and work a high intensity and demanding job [emergency theatres]. I worked a late shift and was on call that night so was required to stay back 3.5 hours (until 2:30am) and returned the next day at 14:30 for my next shift.

For a few days over the month, I experienced kidney stone pain. [I] still worked those days. One day in particular was quite bad; I had to take a Panadeine Forte. The staff did notice a change in my behaviour. Luckily, the role I was working in that day required no patient contact.

I am a menopausal woman. One of the worse symptoms is insomnia. I often come to work with less than 3 hours sleep. I am also on call at weekends and weeknights, so I sometimes have my precious sleep disturbed. Whilst I haven't made a medication error, I worry that I will.

Aggressive patients

Abuse and bullying against nurses are unacceptable yet prevalent issues in the healthcare industry.

Participants shared a major challenge facing nurses in Australian high acuity settings: aggressive patients. Physical and verbal aggression was a prevalent subcategory in the data, with a range of experiences reported by nurses. One nurse said they are *'verbally abused on a weekly basis by the public'*, and another explained it is *'physically and mentally draining when [I] have to work with delirious aggressive patients'*. Nurses shared their fears and frustrations, and the ramifications of coping with aggressive patient behaviour:

> *Aggressive patients are becoming more and more difficult to manage, it really depends on support from fellow nurses and a medical plan from doctors. Nurses when they do get hurt are maybe supported for a short time then if they don't return to work are treated appallingly, at times threatened/bullied.*

> *In last few weeks [I] had delirious or aggressive patients on four shifts … I had few minor errors in documenting things which could have been avoided if I was not mentally drained.*

Individual challenges were highlighted according to work factors. One nurse also shared the challenges of caring for aggressive patients on night shifts:

> *I work mainly nights at the moment, so it is easy for me to manage my workload, however it is harder to deal with aggressive patients with minimal staff at night.*

Another nurse explained the challenges they faced regarding maintaining professional boundaries, while working in a rural location:

> *I work in a rural environment. I have lived and worked here for 33 years. There is considerable crossover between patients and friends/family/neighbours. Sometimes that crossover leads to a blurring of boundaries. Occasionally when I have been yelled at by a patient, my response is not entirely professional, as my relationship with the patient is not always professional. It's difficult to fully maintain boundaries.*

The challenge with remaining empathetic while providing nursing care was a common theme. Nurses described their frustration and conflicting feelings:

> *With confused or aggressive patients, I am less likely to listen to patient saying the same thing despite trying to orientate constantly.*

> *In regards to using curt words, I have been allocated numerous agitated and at times aggressive patients and find it hard to maintain compassion care when avoiding punches and dealing with drug-affected patients who don't care if you are hurt.*

Inadequate staffing

> *[The] cumulative effects of low staffing and high patient acuity lead to mistakes and an inability to be present with patients.*

Inadequate staffing is a serious issue reported by many nurses in this study and can lead to nurse presenteeism, nursing errors and other serious consequences. Included in this category are not enough staff, insufficient skills mix and chronic staff shortages. Nurses stated that reasons for inadequate staffing include increased sick leave due to COVID-19, poor management and high staff turnover:

> *Staffing is a serious issue for my unit. This issue has been compounded by COVID and the required self-isolation due to hotspot contact tracing notifications. It is often not only poor staffing ratios required for complexity of workload, but also poor skill mix of those staff.*

Nurses shared their fears regarding inadequate staffing:

> *[There is] enormous stress from inadequate staffing and no capacity to obtain. Running 22-bed facility with three FT RNs, down to two next week. I'm working clinically and waking at 3am in a cold sweat about this risk.*

> *The workplace is struggling with staffing at the moment as well as sick leave. Sometimes allocations are not a good skill mix, this creates some anxiety for me in some situations.*

Often nurses reported staffing issues '*when it has just been too thin to be acceptable*', citing concerns with responses from management:

> *Management are not concerned/are not changing things when skill mix issues are reported.*

The cycle of presenteeism is linked to staff shortages. One nurse explained that due to staff shortages, they were required to be 'scrubbed in' for a long period of time. Despite feeling well at the time, they became unwell again and needed to take more sick leave. Other ramifications of these staffing issues included missing early warning signs for sepsis, in addition to administration errors:

> *Due to lack of resources, staff and exhaustion simple things get missed. I missed the early warning for sepsis in a client.*

> *Chronically understaffed department: [I am] often pulled to work clinical shifts then stay back to complete management/administrative work. Long days lead to tiredness, mistakes (usually*

data entry type errors in administrative work). [Being] unable to complete tasks for my actual role leads to job dissatisfaction.

The impact of staff shortages on nurses included fatigue from long shifts, injuries due to lack of staff and the wider impact on the healthcare industry. One nurse explained that they are unable to take adequate meal breaks due to the lack of staff able to work in total areas. Another nurse shared that they were told to work as the department otherwise could not manage; however, this led to the nurse sustaining an injury requiring surgery. Overall, nurses were frustrated, tired and outraged at the chronic staff shortages when there is a '*high-risk vulnerable community that deserves better'*.

Protection and coping

[I] believe work stress is part of the challenge of caring. In nursing, it is the way we learn and experience by deal[ing] with each situation that get us through. In other words, we ride each wave of any situation to accomplish success and learn.

Despite the anguish, loss of hope and fatigue conveyed throughout the previous two subcategories many positive messages of hope were identified from our data. Various strategies were identified by nurses as being protective against presenteeism. One nurse shared their experience of coping with workplace stress, and the strategies they use to ensure they could be as present as possible while providing patient care:

My philosophy is to be fully present in any interaction. When I notice my attention is 'not complete', I apologise, paraphrase, refocus and continue with the interaction. Routine tasks are done in a logical manner to save energy and brain drain. I check the functionality of the equipment I will use. Prepare for the unexpected as much as I possibly can. I want to stay ahead. I continuously learn. If I don't know a piece of equipment, I check it out, talk to staff or rep about it, how it works, uses etc for future reference. I am continuously observing the surgery. I ask questions of other team members. I generally do anaesthetics, can scrub, scout and [work in] PACU [post-anaesthesia care unit]. I mentally photograph the theatre setup if it is new to me. I am very focused on OH&S [occupational health and safety] when preparing. No hazards e.g. leads, foot pedal etc. Clear access to patient. I make a conscious decision to reduce the curve balls of life – spiritual practice, eat healthy, exercise and annual check (family history). I love work and make it enjoyable.

Other strategies to reduce presenteeism, and to cope with workplace stress, were shared by nurses. From '*faking being positive'*, to *'sticking to established protocols, taking time, avoiding*

distractions', there were many strategies identified from the data as being protective against presenteeism. Another nurse stated they need '*constant vigilance'*. While discussing stress and coping, nurses shared their strategies of double-checking medications or increasing focus:

> *Stress can either make you more careful or lax. I tend to check things more when tired or stressed.*
>
> *I make no drug errors but I'm meticulous and therefore slow.*
>
> *When shifts are overwhelming (new admissions) or multiple drug infusions (transfusion packs) and you are by yourself it can be harder to deal with the social aspect of work. You can only really focus on staying afloat.*

The joy of work and the rewarding nature of nursing were also highlighted by many participants. Many nurses shared they *'do the best I can with patients and treat them well',* and that *'the care of patients is my priority'*. Nurses spoke of the pleasure they received from caring for patients in their most vulnerable moments:

> *I love work. It's a joy. To be able to interact with my patients, hear their stories, allay their concerns, do patient education. I touch base with most of my patients in recovery before they leave the unit. Just to say, Hi, you did well, all the best. I know I have done my best in caring for my patient. They had a problem when they came in. As a team, we have done our best. I wish for them to have the best life possible.*

Job satisfaction was increased by changes to work structures, for example working part-time. The importance of days off while working in shifts was highlighted.

> *I find working nights a lot better for me. Therefore, I am able to treat patients better because I am happier at work at nights. Unfortunately, my workplace do not allow permanent nights because they think working late early shifts is better for their staff's well-being. I think what is better for staff is what makes them feel better.*

Working part-time was reported to improve job satisfaction and work–life balance, with one nurse saying '*I only work 3 or 4 days a week and enjoy my work, interactions with patients and colleagues*'. Another explained that '*working .84 greatly improved my job satisfaction and my enthusiasm for work*'. Conversely, another nurse reported that working longer shifts but having days off in-between reduced their fatigue:

> *I work 12-hour shifts – so my fatigue after a run of shifts is buffered by the amount of days off i.e. I might work three and have three off – if I was full-time working 8-hour shifts I think there would be a much greater need for extra days off in-between or working part-time.*

While many nurses shared the strategies that worked for them to cope with workplace stress, many rejected the idea that they need to compromise patient care, or the professional and ethical standards upheld in nursing. One nurse aptly explained:

> *I never compromise patient care, most nurses don't, that's why we keep being put through conditions that other professions would simply not put up with.*

This was reiterated by other participants, with one nurse stating '*I am always caring and kind and give my utmost*' and another saying '*I always treat my patients with the utmost respect*'. The importance of professionalism and providing patient-centred care were highlighted:

> *As a professional, there is a standard to uphold, it is important to behave and act professionally. Being angry is not useful and can contribute to errors. Better to vocalise in a calm manner e.g. I don't agree with that. If a break is needed, ask for it.*

> *However I am feeling, my patients always come first and always get appropriate and empathetic nursing care.*

The complex nature of nursing and its relationship to stress also emerged from the data. Nurses conveyed their understanding of humanity, and their patience and tolerance of a broad range of situations:

> *We have to keep in mind that [in] nursing, we deal with a broad spectrum, of all societies … we answer to different behaviours, according to each situation, with respect, and all legalities.*

> *Our profession is a Science, humanity and some spirituality, and life experiences, we deal [with] sickness and human behaviour, in the complex of variety of humanity, at times we are in an environment of general or surgical wards, and extreme potential for pain and loss of lives.*

Our data also highlighted the belief that having good time management, along with nursing experience, moderated the effect of presenteeism during tough working conditions. A range of coping mechanisms were mentioned, from *'spending time at the beginning of my shift updating care*

plans' to '*taking a minute to check a med[ication] before prescribing, even though I already know the answer'*. One nurse described their experience:

> *Having good time management helps me complete my tasks. Our patient acuity can impact on my ability to complete my duties efficiently. The amount of non-essential paperwork that needs to be completed is ridiculous and doesn't reflect the care required or given.*

Nursing experience was mentioned by participants as moderating the impact of stress. One participant stated *'I've done my job for so many years – it's like second nature to me'*, while another simply said *'my experience supports my professionalism'*. One participant reflected:

> *After the many years of working as a nurse, we learn to deal with high stressful situations, it is expected at times, to be constant at time[s], rewarding most of the time, a touch of self-denial at times, learning to cope in caring for other human beings is complex, spending time caring for ourselves, and balance life in general, comes with time.*

Finally, a strong thread that emerged throughout the data analysis process explained how nurses supported each other through adversity. Nurses explained that '*we all talk to each other because that's our only outlet*' and that '*many of us are in the same position of being stressed*'. Debriefing was a common coping mechanism, with nurses highlighting the importance of this process:

> *Personally find debriefing with co-workers very cathartic and helpful.*
>
> *We do discuss stressful situations, but that is part of our job and part of the learning process.*

The experiences of these nurses illustrate acts of coping, in which they pushed back against the challenging circumstances facing nurses working in high acuity settings. Nurses demonstrated the capacity to build resilience through various coping mechanisms, uniting individuals as a team and keeping the valuable work they were undertaking in perspective.

Discussion

The findings of this study described the stress and complications experienced as women attempted to manage their time between professional responsibilities and caring responsibilities. The data shows the conflict occurring between managing both professional responsibilities and caring responsibilities has increased as a result of COVID-19. This phenomenon, called work-life conflict,

can results in organisational or personal stress, poorer health, higher turnover of staff, and reduced job satisfaction (Eby et al., 2005).

Work-life conflict stems from the conflicting emotional and behavioural expectations of work and non-work responsibilities. This results in challenges when engaging in one role, as it is hindered by involvement in the other (Greenhaus & Beutell, 1985). The conflict between personal and professional life has become a pressing concern, driven by factors such as globalisation, the integration of new technologies, the overlap of work and family time, evolving organisational structures, and changes in work structures (Akanji et al., 2020). This issue is particularly emphasised in professions such as nursing, characterised by demanding working hours or schedules (Lee & Joseph Sirgy, 2019).

Nurses working in high acuity settings have especially demanding roles encompassing occupational stressors including high patient acuity, high levels of responsibility, working with advanced technology, caring for families in crisis and involvement in morally distressing situations (Epp, 2012). Workers experiencing high demands in working hours may experience reduced satisfaction with their work-life balance, possibly attributed to an escalation in work-life conflict (Fein & Skinner, 2015). According to Bakker et al. (2009), work-life conflict, or spillover, is defined as "a within-person across-domains transmission of strain from one area of life to another" (p. 207).

Work-life impact was extensively discussed by participants in this study. This study describes nurses' experiences of the cycle of presenteeism, whereby work-life conflict both causes presenteeism and is caused by presenteeism. The impact of nurse presenteeism has been increasingly recognised in the literature (Freeling et al., 2020; Lui et al., 2018; Rainbow, 2019; Shan et al., 2021). It is widely accepted that nurse presenteeism has a negative impact on individual physical and mental health, job performance, and work productivity (Johns, 2010; Sun & Zhang, 2015). The negative impact on nurse health and well-being, and patient safety, is also emerging (Brborovic et al., 2014; Freeling et al., 2020; Rainbow et al., 2020). Workload, insufficient leave entitlements, financial reasons and conscientiousness were found by Shan et al. (2021) to be the main contributors to the high rates of presenteeism found in nurses.

Examining this finding through a feminist lens offers a deeper understanding of the gender-specific aspects of work-life conflict. For women, the struggle to achieve a balance between work and life may be exacerbated by family expectations related to childbirth and child-rearing (Cinamon & Rich., 2002). These expectations can make it challenging to maintain equilibrium between professional and personal responsibilities. If work demands escalate during a period when this work-life balance is already disrupted, it could lead to sleep disturbances (Hwang & Jung., 2021).

Research indicates that the economic impact of the COVID-19 pandemic has been more detrimental for women than men. Frontline workers such as nurses at higher risk of exposure to the virus are predominantly women, and burden of unpaid care work has disproportionately fallen on women (Kabeer et al., 2021). The suspension of numerous care services, including childcare, schooling, senior care, and domestic assistance, is likely a contributing factor to this gender disparity (Chen & Bougie, 2020). Increases in workloads both professionally and domestically may contribute to presenteeism and work-life conflict.

Recent research by Zurlo et al. (2020) showed that female nurses reported significantly higher levels of work-family conflict, anxiety, depression, and somatisation. Notable gender differences were observed in the relationships between work-family conflict and nurses' mental health conditions, as well as in moderating variables. Further, the data on gender disparities in sociodemographic and employment characteristics underscored a lesser inclination among female nurses to opt for full-time work and night shifts (Zurlo et al., 2020). This trend is likely influenced by their need to manage family responsibilities. However, viewing this from another perspective, these findings also emphasise that male nurses could be at a higher risk of occupational health issues. Further research is needed that investigates the post-pandemic challenges related to presenteeism and work-life conflict among women, men, and non-binary nurses. This would facilitate identification of strategies and interventions to improve nurse wellbeing, irrespective of their gender.

Excessive workload, illness and fatigue, aggressive patients, and inadequate staffing were highlighted by participants as causing presenteeism, and were also a result of presenteeism being experienced. A study by Gillet et al. (2020) discussed the impact of workload on presenteeism,

finding that emotional dissonance and workload were negatively linked to sleep quality and relaxation. Better sleep quality and relaxation were, in turn, related to lower levels of presenteeism and emotional exhaustion. Illness and fatigue can be contributors to presenteeism, but can also be caused by presenteeism, thereby creating a cycle.

Illness and fatigue, and the link to presenteeism, also arose as a subcategory in this research. Reports of illness were prevalent throughout the findings, and the overwhelming feeling of exhaustion was captured. The link between illness and fatigue was again cyclical, with participants stating that the inability to take personal/sick leave leads to presenteeism. As discussed by Rainbow et al. (2022), the definitions of fatigue, burnout and presenteeism are broad but overlap in part. These terms have been noted to have similar origins, including work antecedents (e.g. excessive demands), and similar negative outcomes (e.g. decreased patient safety and increased costs to organisations). Presenteeism due to illness and fatigue can at times be beneficial; work provides structure, builds confidence and offers social engagement (Kinman & Grant, 2021). However, the evidence is clear that working while unwell can delay rather than expedite recovery, increasing sickness absence and the risk of future health issues (Skagen & Collins, 2016).

An important finding of this research centres on nurses' experiences of protecting themselves and strategies to assist with coping with presenteeism and work-life conflict. Participants shared the benefit of good time management, including forward planning for shifts and double-checking work tasks, on reducing workplace stress. This is consistent with the findings of Weaver et al. (2023) who found that when nurses were tired and not working to the best of their ability, strategies such as double-checking their work were used to help mitigate safety risks. Effective time management, and getting organised for a shift ahead of time, were also discussed as successful coping strategies. This was supported by recent research, which found that cognitive strategies, including mindfulness, planning and time management, and attitudes towards shift work, were reported ways of coping with the demands of shift work (Savic et al., 2019).

Altering work hours and shift patterns also arose in this research as a coping mechanism to reduce nurses' presenteeism and workplace stress. Changing work hours and shift patterns to suit

the individual nurse's family life and needs may help nurses maintain work-life balance, reducing the need to come to work when they are unwell. Establishing a flexible rotating work schedule and shift schedule rearrangement, to facilitate individual needs, can improve nurses' sleep patterns and sleep quality (Sun et al., 2019). While challenging in the current climate, facilitating shift schedules to suit an individual's commitments and personal preference, allowing them to take sufficient time off and normalise total weekly working hours, could prevent stress (Dinis & Fronteira, 2015) and maintain work-life balance. Facilitating a fair, open and transparent shift allocation process, which empowers nurses with choices and open discussion with managers, may reduce presenteeism and workplace stress. Importantly, Leineweber et al. (2016) note that nurses who are more satisfied with schedule flexibility are less likely to leave the nursing profession. Employers play a key role in supporting nurses and reducing the risk of presenteeism by providing resources and support relating to shift schedule management.

Debriefing and social support arose as another coping mechanism in the results of this research. Nurses spoke about supporting each other through formal and informal discussions, which helped mitigate some of the stress experienced at work. There has been extensive research highlighting the benefits of debriefing, and the importance of support from colleagues (Allen & Palk, 2018; Dufrene & Young, 2014; Savic et al., 2019). This process is especially important in high acuity environments, which have unique and ever-changing stressors (Healy & Tyrrell, 2013; Sandhu et al., 2014). Nurses working in these settings are exposed to challenging daily work routines, high patient morbidity and mortality, and regular encounters with challenging traumatic and ethical situations (Donchin & Seagull, 2002; Mealer et al., 2007). Although underutilised in critical care settings, debriefing can encourage nurses to learn from their exposure to various clinical situations and reflect on their experiences.

Focusing on the joy of nursing was discussed by participants as helpful in reducing presenteeism and coping with the stressful conditions currently facing nurses in high acuity settings. Messages of hope, resilience and the immense compassion that nurses consistently bring, despite the many challenges of the job, were also shared in this research. Professional joy, fostered through a healthy

work environment, reduces nurse burnout and increases patient safety (Aiken et al., 2008; Olds et al., 2017). The joy of nursing has been recognised as a crucial aspect of a healthy workplace, due to the impact that the quality of the work environment has on patient outcomes (Fitzpatrick et al., 2019). So important is experiencing the joy of nursing that many advocate for the widely used Triple Aim (a framework for optimising health system performance) to be expanded to include a fourth dimension of attaining joy in work (Aiken et al., 2008; Bodenheimer & Sinsky, 2014; Olds et al., 2017). Fostering this joy requires 'why' (purposeful work), leader practices as the 'how', and nine core ingredients as the 'what' leaders should ensure (namely physical and psychological safety, meaning and purpose, choice and autonomy, recognition and rewards, participative management, camaraderie and teamwork, daily improvement, real-time measurement, and wellness and resilience) (Perlo et al., 2017). While implementing this framework is a costly and time-consuming commitment, joy at work is a necessary element of clinician well-being and subsequent optimal patient health. This research reflects the importance of fostering joy at work and ensuring nurses are supported to live this joy through their work, where possible.

Limitations

This study has several limitations. The original plan to conduct focus groups in the qualitative phase of this study had to be changed due to the unexpected occurrence of the COVID-19 pandemic. This change in methodology could have influenced the nature of the data collected and the subsequent findings. The decision to collect qualitative data via open-ended survey responses was made quickly due to time constraints related to changing ethics approval and barriers to other methods of qualitative data collection. While this decision was pragmatic given the state of emergency, it may have limited the depth and breadth of the data collected compared to other qualitative methods such as interviews or focus groups. Using focus groups in future research may facilitate participant interaction and discussion, which may generate in-depth data about experiences of nurse presenteeism.

Despite these limitations, this study has yielded rich qualitative information. The number and depth of qualitative responses suggest that the method of data collection was effective under the circumstances.

Conclusion

Overall, nurses highlighted a variety of coping strategies to manage presenteeism and reduce its impact on their health and well-being. While further research is needed to explore the relationships between presenteeism and work-life conflict, the impact of these challenges, and coping strategies, these data provide new and important insights. Findings suggest a need to broaden our understanding of nurse presenteeism, and the demands placed on nurses with both professional and personal caring responsibilities. The struggles shared by nurse participants in this research draw attention to the larger issues facing nurses working in high acuity settings in Australia. Work-life conflict post COVID-19 may potentially threaten recruitment and retention of nurses due to the impact on nurse health.

Chapter summary

Chapter 6 presented the qualitative research that is part of this wider mixed methods research. An integrative discussion of this research is presented in Chapter 7.

CHAPTER 7: INTEGRATIVE DISCUSSION

Chapter overview

Chapter 7 presents an integrative discussion, which addresses the research questions, consolidates the research findings, and discusses the implications for policy and leadership. This chapter emphasises the new knowledge gained from this research and recommends future research.

Introduction

The purpose of this mixed methods research study was to explore presenteeism among nurses working in high acuity settings. By combining quantitative and qualitative data, this study aimed to provide a more comprehensive understanding of the complex factors that contribute to presenteeism in high acuity settings and the issues facing high acuity nurses in Australia.

Presenteeism, defined as attending work while sick or unwell, is a growing concern in the nursing profession. Nurses are often exposed to high levels of stress and burnout, which can contribute to presenteeism and negatively impact patient outcomes. While presenteeism has been studied extensively in the nursing profession, less attention has been paid to the unique challenges faced by nurses working in high acuity settings, such as intensive care, perioperative and emergency department settings.

This study has uncovered several pressing concerns confronting nurses working in high acuity healthcare settings in Australia. The findings from this study show that higher levels of presenteeism leads to lower health-related quality of life. Nurses are experiencing conflict between managing professional and personal caring responsibilities, which has been exacerbated by COVID-19 and structural and organisational factors. This work-life conflict can both lead to presenteeism or results from presenteeism.

The data shows the conflict occurring between managing both professional responsibilities and caring responsibilities has increased as a result of COVID-19. This phenomenon, called work-life conflict, results in sacrifices on personal, familial and work levels.

Nurses are grappling with substantial mental, physical and emotional strains, which have been further compounded by the COVID-19 pandemic. These challenges may have repercussions on nurse recruitment and retention. Consequently, there is an imperative for organisations to reassess their leave policies, bolster work engagement, and promote awareness regarding the issue of presenteeism.

As the data collected in this research is complex, research findings will be integrated in a dual display (focusing on the concordance between quantitative and qualitative results). Each research question will then be answered, and findings discussed in the context of current literature in this field, leading to a meta-inference. Implications of this research and recommendations for education, policy change and future research will be presented.

Table 8. Convergent joint display of quantitative and qualitative data

Quantitative Finding	Qualitative Category	Subcategory	Exemplar	Interpretation
Over half of participants, 56% (n=93), reported having caring responsibilities outside of work. The association between caring responsibilities and nurse presenteeism was not statistically significant (p=0.68); a larger sample size is required to confirm the relationship.	Conflict between work and caring responsibilities	–	*My role as a mother does not allow me to properly rest prior to my shifts, therefore dealing with this constant high level of stress in the workplace has certainly impacted on my attitude towards my workplace.*	Managing work responsibilities and caring responsibilities is a challenge facing high acuity nurses.
Results showed a mean presenteeism score of 2.67 (SD=1.03) for the Job-Stress-Related-Presenteeism Scale, and a total mean score of 25.22 (SD 14.27) for the Nurses Work Functioning Questionnaire. Presenteeism was higher in this subgroup of nurses, compared with previous research.	Personal and organisational impact: the cycle of presenteeism	Excessive workload	There are times when the workload is enormous and dealing with awake patients and concerned family members can be very challenging. The environment is stressful due to the acuity and complexity of patient condition, as well as the managerial structure, the approachability and presence of medical staff, and the lack of resources in my hospital. All of this takes its toll on the quality and safety of my work, as well as my satisfaction with my work.	High acuity nurses are experiencing presenteeism and job dissatisfaction due to a combination of workload, patient complexity, and structural issues.

Quantitative Finding	Qualitative Category	Subcategory	Exemplar	Interpretation
Nurse presenteeism is significantly negatively associated with health-related quality of life (p= 0.001)	Personal and organisational impact: the cycle of presenteeism	Illness and fatigue	Late early shifts reduce how alert I am at work, no matter how much coffee I've had. Sometimes I feel really ill, but it's way too late to call in sick, so I just suck it up and get on with it. Also being on for 7 days straight make[s] me seriously reconsider my career and just my empathy is non-existent.	Presenteeism reduces nurses' health-related quality of life. Personal accounts from participants highlight the physical, psychological and emotional toll of presenteeism, relating to organisational, structural, and personal factors.
Supervisor support mediates the negative relationship between nurse presenteeism and health-related quality of life, however, was not statistically significant in this sample (p=0.68). A larger sample size is required to confirm the relationship.	Personal and organisational impact: the cycle of presenteeism	Excessive Workload	My ability to work consistently, and without difficulty, is dependent on the varying workloads I'm required to undertake, and the influence of the varying skill levels of other staff. Managerial interference and ignorance of the working process is also a contributing factor.	Supervisor support and the broader work environment play a crucial role in nurses' health-related quality of life.

Quantitative Finding	Qualitative Category	Subcategory	Exemplar	Interpretation
Nurse presenteeism is significantly negatively associated with the perception of patient safety (p=0.013)	Personal and organisational impact: the cycle of presenteeism	Excessive Workload	We face daily pressures in the perioperative department. These pressures come from management and surgeons, who sometimes compromise patient safety in order to work faster. This can make it difficult to advocate for our patients and their safety.	Presenteeism is related to lower perceptions of patient safety. Presenteeism, driven by pressures in high acuity healthcare settings, can lead to a decreased ability to advocate for patient safety, thus negatively impacting the overall perception of patient safety
Pain symptoms moderates the relationship between nurse presenteeism and the perception of patient safety, however, this was not statistically significant (p=0.56). A larger sample size is required to confirm the relationship.	Personal and organisational impact: the cycle of presenteeism	Illness and fatigue	For a few days over the month, I experienced kidney stone pain. [I] still worked those days. One day in particular was quite bad; I had to take a Panadeine Forte. The staff did notice a change in my behaviour. Luckily, the role I was working in that day required no patient contact.	There is a complex interplay between personal health issues, job roles, and patient safety in the context of nurse presenteeism.

Overall interpretation of quantitative and qualitative findings:

Nurses working in high acuity settings are experiencing intensified work-life conflict due to the impact of structural and organisational work factors, combined with the demands of caring responsibilities. This can both result in presenteeism and be the cause of presenteeism.

What percentage of Australian high acuity nurses report presenteeism?

Nurses working in high acuity settings may be more likely to experience presenteeism due to a variety of factors. High acuity settings, such as intensive care, perioperative and emergency department settings, often have high patient volumes, complex patient needs and fast-paced work environments that can lead to high levels of stress and burnout (Khan et al., 2019). The high demands of work in these settings, combined with the need to maintain patient safety, may lead nurses to come to work when they are unwell (Adriaenssens et al., 2011; Caverley et al., 2007).

As highlighted in Chapter 2, there is a lack of research specifically investigating nurse presenteeism in high acuity settings. In previous research, studies have included participants comprising both high acuity nurses and nurses working in other settings (Yokota et al., 2019), or other professions in addition to nurses (Jiang et al., 2019; Rantanen & Tuominen, 2011; Silva et al., 2019; Szymczak et al., 2015). This means it is hard to ascertain specific data exploring presenteeism in this specific subgroup of nurses.

This research explored nurse presenteeism specifically in high acuity settings, as all participants were nurses working in intensive care, perioperative or emergency department settings. The number of participants was 166, comprising 91.6% females (n=152) and 8.4% males (n=14) (no participants reported identifying as non-binary). Participants were aged between 22 and 68 years (mean=44.28, SD=12.57). In comparison, nationally Australia has a slightly lower percentage of female nurses, with 88.4% of employed nurses and midwives identifying as female, and a higher percentage of male nurses (11.6%). The average age of nurses in Australia was 43.05 years according to data released in 2021 (NMBA, 2021a).

This study measured presenteeism using two validated survey instruments: the Job-Stress-Related Presenteeism Scale (JSRPS) and the Nurses Work Functioning Questionnaire (NWFQ). A prior study found a mean presenteeism score of 1.4 (using a 1 to 5 scale) for the JSRPS in a sample of community nurses in Australia (Karimi et al., 2017). In another study among nurses from the United States, the mean was 2.1 (Rainbow et al., 2019). Results of this study showed a mean presenteeism score of 2.67 (SD=1.03) meaning that presenteeism was higher in this subgroup of

nurses, compared with previous research. The NWFQ showed a total mean score of 25.22 (SD 14.27) for this sample, while previous research found a mean NWFQ score of 17.0 (Rainbow et al., 2019). Therefore, nurses in this study had higher levels of presenteeism than those found in prior studies, when using the same validated instrument to measure presenteeism.

There are limited data available on global rates of nurse presenteeism, as the practice is not well documented or consistently measured across different countries and healthcare systems. However, Chapter 3 demonstrates that presenteeism is a widespread phenomenon in the nursing profession, with studies indicating that the occurrence of presenteeism varied from 15.74% (n=147) (Brborovic et al., 2016) to 86.96% (n=951) (Dellve et al., 2011). As discussed in Chapter 3, rates of presenteeism vary widely depending on the specific healthcare system (and country), nursing role, type of organisation, working conditions, presenteeism measure and time frame used in research studies. However, the high prevalence of nurse presenteeism reported in these studies, and this original research, highlights the need for greater attention to the issue and the development of interventions to address the root causes of presenteeism in nursing.

Overall, while more research is needed to determine the exact rates of presenteeism among nurses working in high acuity settings, this research suggests that these nurses may be at a higher risk for experiencing presenteeism due to the unique demands of their work environment. Addressing the underlying causes of presenteeism in high acuity nursing settings may require targeted interventions, such as providing additional support and resources to help nurses manage stress and workload.

What are the associations between job-stress-related nurse presenteeism, nurses' work functioning, and health-related quality of life, supervisor support, and patient safety?

The findings from the structural equation modelling revealed a direct correlation between increased levels of nurse presenteeism and decreased work functioning. This relationship was associated with increased levels of presenteeism due to job-related stress and a reduction in health-related quality of life. These results suggest a cycle in which presenteeism leads to impaired work

functioning, which, in turn, results in higher job-related stress and a lower health-related quality of life for nurses. This highlights the importance of addressing presenteeism and mental health concerns to improve the overall well-being and work engagement of nurses. This new knowledge adds to the limited body of research on the connection between nurse presenteeism and health-related quality of life. However, it is well established that nurse presenteeism affects various aspects of personal and professional life, encompassing physical and mental health, job performance, and work productivity (Johns, 2010; Sun & Zhang, 2015).

The study findings indicate that nurses' health-related quality of life plays a significant role in the relationship between job-stress-related presenteeism and work functioning. Essentially, the ability of nurses to function at work is influenced by their health-related quality of life, suggesting that a higher quality of life enables more effective management of job stress and better work performance. Conversely, a lower quality of life exacerbates the impact of job stress on work functioning. This observation aligns with the outcomes reported by Yang et al. (2016), who identified indirect effects linking stress-related workplace factors, individual characteristics, and presenteeism, mediated by health.

Furthermore, the study suggests that supervisor support acts as a mediator in mitigating the negative relationship between nurse presenteeism and health-related quality of life. The research suggests that nurses perceiving their supervisors as supportive experience a moderation of the deleterious effects of presenteeism on their health-related quality of life (Magalhães et al., 2022). This effect may stem from supportive supervisors providing resources or accommodations facilitating nurses in managing their health during work, including episodes of illness or pain (Nelson et al., 2016).

Findings also indicate a significant negative association between nurse presenteeism and nurses' perception of patient safety. Presenteeism has the potential to diminish the perceived level of overall patient safety in the respective work area. This finding is supported by Rainbow et al. (2020), who discovered negative relationships between job-stress presenteeism and patient safety outcomes, encompassing lower rates of safety event reporting and decreased perceptions of patient

safety. The consequences of presenteeism extend to reduced quality of care, heightened probabilities of patient falls, medication errors, and staff-to-patient disease transmission (Li et al., 2019).

Furthermore, findings indicate that the experience of pain can moderate the relationship between nurse presenteeism and the perception of patient safety. When nurses persist in working despite experiencing pain symptoms, presenteeism may occur, potentially compromising their ability to perform duties effectively and resulting in errors or oversights. The severity of pain assumes a moderating role in this relationship. This underscores the imperative of addressing pain symptoms among nurses to safeguard patient safety (Letvak et al., 2012). Healthcare institutions need to implement strategies to manage presenteeism, encompassing the provision of adequate sick leave, the promotion of self-care, and support for pain management.

What is the impact of caregiving responsibilities on the experiences of presenteeism among nurses?

Results from this study show caring responsibilities are a major issue facing Australian nurses working in high acuity settings. Results show that 56% (n=94) of participants reported having caring responsibilities that affect their capacity to work. Participants described the impact of work-life conflict. They described feelings of guilt and feeling a strong sense of loyalty to family but needing to earn an income despite not being fully present at work. Nurses who have caring responsibilities may feel obligated to come to work even when they are not feeling well, to avoid taking time off that they may need at another time to care for their loved ones. This finding is supported by other research; however, there is limited knowledge about the relationship between nurses' work-life conflict and presenteeism. In a study by Fiorini et al. (2018), participants were driven to engage in presenteeism due to various factors, including support and encouragement from their family, the necessity to work, and the desire to set an example of good work ethic for their children. Other research also suggests that having children is associated with increased presenteeism (Arnold, 2016).

What methods of coping with situations that lead to presenteeism do nurses find effective?

One significant finding of this research centres on nurses' experiences with coping and self-care strategies. Participants emphasised the benefits of effective time management, including planning for shifts and double-checking work tasks, as a means of reducing workplace stress. This aligns with the findings of Weaver et al. (2023), which revealed that nurses used strategies such as double-checking their work when they were fatigued, or not performing at their best, to mitigate safety risks. Effective time management and preparing for shifts in advance were discussed by participants in this study as successful coping strategies. Recent research also found that cognitive strategies such as mindfulness, planning and time management, and attitudes towards shift work were reported as ways of coping with the demands of shift work (Savic et al., 2019).

Adjusting work hours and shift patterns also emerged as a coping mechanism to reduce nurses' presenteeism and workplace stress. Modifying work hours and shift patterns to align with individual nurses' family life and needs may help them manage their work and personal responsibilities more effectively, reducing the necessity to work while unwell. Implementing a flexible rotating work schedule and shift schedule rearrangement to accommodate individual needs can improve nurses' sleep patterns and sleep quality (Sun et al., 2019). Despite being challenging in the current environment, facilitating shift schedules to suit individuals' commitments and preferences, facilitating sufficient time off between shifts, and standardising weekly shifts could alleviate stress for nurses (Dinis & Fronteira, 2015). Creating a fair, open and transparent shift allocation process that empowers nurses with choices and encourages open discussions with managers may reduce presenteeism and workplace stress. Nurse managers play a pivotal role in supporting nurses and reducing the risk of presenteeism by offering resources and support related to shift schedule management.

Debriefing and social support also emerged in the results of this research as a way in which nurses cope with situations that lead to presenteeism. Nurses discussed the benefits of supporting each other through formal and informal discussions, which helped alleviate some of the stress

experienced at work. Debriefing is particularly significant in high acuity environments, which have unique and constantly changing stressors (Healy & Tyrrell, 2013; Sandhu et al., 2014). Nurses in these settings are exposed to demanding daily routines, high patient morbidity and mortality, and frequent encounters with challenging traumatic and ethical situations (Donchin & Seagull, 2002; Mealer et al., 2007). Managers and leaders need to ensure that workplace policies implement regular debriefing and team huddles are consistently prioritised in high acuity settings.

What policy and leadership considerations arise from nurse presenteeism in Australia?

> *It's time for policy that recognises the reality of modern parenting. It's time for policy that gives parents the choice to care.*
> *Parents Work Collective (2023)*

It is essential that we consider the context in which presenteeism occurs, and each individual's experience and autonomy. Occupational health and safety policies, along with sick leave policies, need to recognise presenteeism in the discourse around leave and work arrangements. While the cost incurred by organisations due to absenteeism is well known, there is increasing evidence that presenteeism results in substantial costs to organisations due to decreased productivity of employees while at work (Letvak et al., 2012; McTernan et al., 2013; Zhang et al., 2015). Recent evidence demonstrates that the costs to organisations of health-related and work environment–related problems can exceed the individual's wage (Strömberg et al., 2017). There is a need to recognise presenteeism as a challenge for the economy, social policy, public health and human resource management (Pärli, 2018).

Globally, paid sick leave is provided by approximately 145 countries (Scheil-Adlung & Sandner, 2010). Of 22 countries that rank highly in terms of economic development according to the United Nations' Human Development Index, the United States is the only country that does not guarantee paid sick leave for workers. Paid sick leave allows employees to leave work or recuperate at home without sacrificing income, and gives individuals a chance to regain their health, avoid spreading communicable diseases and return to full productivity at work. Sick leave policies improve population

health, improve the quality of jobs, and increase work–life balance for low-income families (Pichler & Ziebarth, 2018). However, many workers continue to go to work when they are sick (presenteeism) because policies for taking paid time off from work in case of illness are often missing, unclear or incomplete (Heymann et al., 2010). Further, work culture, increased clinical workloads, and financial pressures from the economic downturn resulting from the global COVID-19 pandemic may promote the tendency for nurses to go to work while unwell or impaired. As highlighted by Kinman and Grant (2021), presenteeism can be endemic in workplaces that foster a culture of long working hours and stigmatisation of sick leave. There is a need for organisations to reconsider leave allowances, to better assist those with caring responsibilities, and explore strategies to assist with managing these dual roles.

Nationally in Australia, there is currently a strong argument for action to improve employee psychological health. Safe Work Australia recognises that improving the psychosocial safety climate (i.e. the organisational climate for employee psychological health, well-being and safety) also has the added value of reducing productivity costs due to sickness absence and presenteeism (Becher & Dollard, 2016). It has been estimated that approximately A$6 billion per annum could be saved by Australian employers by improving the psychosocial safety climate in their organisations (Potter et al., 2016). One way that organisations can reduce presenteeism and absenteeism, thereby improving the health and productivity of their workforce, is to address the psychosocial safety climate in their workplace. However, despite knowing this, current approaches to address this issue are limited. For example, the Victorian Trades Hall Council Occupational Health and Safety Unit (Victorian Trades Hall Council, 2015) refer to presenteeism only in terms of infectious illness. According to Section 21 of the *Occupational Health and Safety Act 2004* (Vic), the employer has a duty to, ‘so far as is reasonably practicable, provide and maintain for employees … a working environment that is safe and without risks to health’. A broader definition of presenteeism, including causes and consequences, needs to be included in health and safety policies.

Further, it is important that policies distinguish between voluntary presenteeism (where individuals choose to work with the support of their employers) and involuntary presenteeism (arising

from organisational pressure or personal circumstances where the repercussions of absence are deemed too severe) (Holland & Collins, 2018). Involuntary presenteeism carries numerous adverse consequences. Conversely, voluntary presenteeism, when accompanied by adequate organisational support, can prove beneficial for both employees and organisations (Collins & Cartwright, 2012). While implementing individualised workplace adjustments to facilitate voluntary presenteeism can pose challenges, particularly within healthcare organisations, it remains an imperative endeavour. Presenteeism tends to vary over time and is experienced differently by each individual, emphasising the need for flexible organisational policies in this regard (Holland & Collins, 2018).

Although presenteeism can have negative consequences, it can also have positive outcomes. In general, engagement in work can contribute to improved health and overall well-being (Miraglia & Johns, 2016). It is worth noting that, for many individuals living with disabilities, employment serves as a gateway to social interactions, structured routines and financial independence (Saunders & Nedelec, 2014). Existing evidence strongly underscores the necessity for organisations to adopt adaptable policies and practices that cater to employees contending with fluctuating health conditions, as conventional sick leave policies often fall short in addressing the complexities of working with such conditions (Holland & Collins, 2018).

What is the wider relevance of this research to individuals, families and societies?

The findings of this study are relevant to all nurses as they highlight the importance of addressing presenteeism and work-life conflict. While the study focuses on female nurses, given their majority in the nursing profession, the issues of work-life conflict and presenteeism are not exclusive to women. Research which compares nurses' work-life conflict and presenteeism across genders is limited. However, referring to studies that investigated gender disparities in occupational health processes across various working populations, it is well-established that there is a higher incidence of psychophysical diseases among female workers (Wege & Li., 2018). While research is increasingly recognising the issue of work-family interference as significant in both genders (Munn & Greer, 2015; Watai et al., 2008), there remains a lack of clear consensus on whether the perceived

levels of work-family conflict and its impact on workers' psychophysical health may differ between male and female workers (Magnusson Hanson et al., 2014; Munn & Greer, 2015).

Further research is needed to explore the gender differences regarding the incidence and impact of nurse presenteeism and work-life conflict. Gender differences require particular attention, because life and work experiences, as well as perceived needs and priorities, may vary across genders, potentially requiring specific and different strategies to achieve their wellbeing. Understanding the challenges facing women, men and non-binary nurses around presenteeism and work-life conflict, can help create between work environments for all nurses, regardless of gender.

Integration of findings

> *Career feminism and care feminism are both needed to ensure we support all women in all seasons of life.*
> *Parents Work Collective (2023)*

This research suggests a cycle exists in which presenteeism due to common mental health disorders leads to impaired work functioning, which, in turn, results in higher job-related stress and a lower health-related quality of life for nurses. The lens of feminist pragmatism has been used to explore nurse presenteeism, with the goal of putting women at the centre of this research. Women's experiences of presenteeism, the relationship between presenteeism and health-related quality of life, caring responsibilities and the conflict with nursing work, and coping mechanisms have been explored. The meanings and consequences of those experiences have been woven throughout this research. In this research paradigm, the creation and exploration of new knowledge has been guided by the interests and values (Seigfried, 1996) of both the nurse participants and the researcher.

When examining nurse presenteeism and its impact on health-related quality of life, it is imperative to acknowledge that nurses' perceptions of their health and illness may be uniquely influenced by their constant exposure to sickness and the demanding high acuity healthcare environment. Given that health knowledge is integral to nursing practice, nurses tend to possess a higher degree of health literacy than the general population (Nie et al., 2019). Paradoxically, there is a higher prevalence of presenteeism in the nursing profession than in many other industries

(Aronsson et al., 2000; Bergström et al., 2009). Over time, nurses may become desensitised to symptoms associated with common illnesses due to their continuous exposure to various ailments. Moreover, as suggested by Chambers et al. (2017), medical professionals, including nurses, often possess a high threshold for recognising illness within themselves.

This perception of health and illness, and the theorised relationship to nurse presenteeism, is further informed by the theory that workers gauge their health threats or dangers by assessing their own susceptibility to illness and the illness severity (Champion & Skinner, 2008). Individuals who consider themselves less vulnerable and generally more resilient, and who perceive their existing health problems as less serious, may be more inclined to participate in presenteeism. Moreover, in alignment with the Health Belief Model (*Figure 14*), individuals assess the barriers or drawbacks associated with their actions in comparison to the advantages, encompassing personal benefits as well as those for patients, colleagues and the healthcare organisation.

This research highlights the importance of considering the impact of caring responsibilities on presenteeism behaviour, and the importance of working to ensure workplace policies and structures facilitate caring responsibilities. Other research suggests that female respondents are more prone to facing pressures to reserve their sick leave for when dependants are ill, and this pressure may not apply to their male colleagues (Chambers et al., 2017). However, further research is needed to explore the impact of caring responsibilities on nurses' decision-making regarding absenteeism and presenteeism. From a feminist perspective, the potential influence of family structures and perceptions of caring responsibilities on nurse presenteeism needs to be further researched.

Further, a strong sense of duty and commitment to patient care may also exacerbate nurse presenteeism. Studies have identified job enjoyment, feelings of pride and satisfaction, and a sense of responsibility as reasons why nurses continue to work when they are unwell (Çetin, 2016; Mlakar & Stare, 2013). Concerns about staffing adequacy and loyalty to colleagues may further motivate nurses to continue working even when unwell (Fiorini et al., 2018).

Presenteeism and absenteeism in nursing are opposite behaviours, representing two different aspects of work attendance, each with its own implications and challenges. Presenteeism is

challenging to measure objectively. Presenteeism measurements are largely self-reporting instruments (Ospina et al., 2015) and are therefore dependent on the individual nurse's assessment of their own well-being and ability to perform their duties effectively. What one nurse considers presenteeism due to illness or reduced capacity, another might perceive as simply fulfilling their duty. The impact of presenteeism depends on the nature of the nursing role, the healthcare setting and the specific tasks at hand. Nurse presenteeism may pose significant safety risks in one situation, but may not be a problem in another.

The closely related but easier to measure concept of absenteeism, defined as non-attendance at work, has been the subject of extensive research (Johns, 2009; Mininel et al., 2013). Nurses may be absent for various reasons, including personal illness, family emergencies, burnout, stress and dissatisfaction with the work environment. Excessive absenteeism can lead to staffing shortages, increased workloads for other nurses, and potential compromises in patient care and safety. It may result in the need for temporary staff or overtime for other nurses to cover shifts.

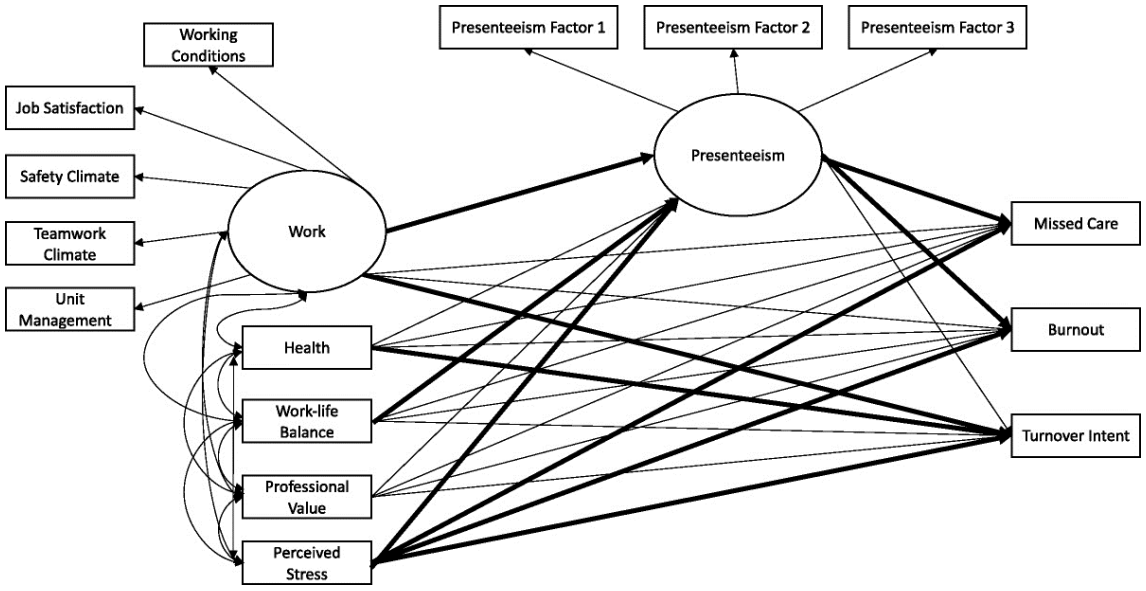
In the general population, presenteeism and absenteeism are most commonly caused by job insecurity, financial difficulties, job control, job demands, support from colleagues, supervisor support and an optimistic outlook (Miraglia & Johns, 2016). Job demands, and job and personal resources play a role as intermediaries, leading to presenteeism through health-related issues and motivational pathways (Miraglia & Johns, 2016). These behaviours result in decreased work productivity. An absent employee means there is a complete lack of work productivity, while presenteeism results in lower-than-expected productivity (Kivimäki et al., 2003; Rantanen & Tuominen, 2011; Schultz & Edington, 2007), consequently raising costs for the organisation.

Both absenteeism and presenteeism can have negative impacts on patient care. Absenteeism may lead to staffing shortages, while presenteeism can result in reduced quality of care due to the nurse's compromised health. Unlike absenteeism, which is relatively easy to track because it involves nurses not being at work, presenteeism involves nurses being physically present at work but not functioning at their best (Johns, 2010). The risks to patient safety, nurse well-being and financial cost are recognised, but challenging to quantify (Freeling et al., 2020). Unlike absenteeism,

which can be quantified by the number of hours or days missed, presenteeism does not have a standardised definition or measure (Ruhle et al., 2020). Reasons for engaging in presenteeism, instead of taking sick leave, include fear of job loss, job insecurity, insufficient leave, and a strong sense of responsibility to patients and colleagues. Absenteeism poses challenges in ensuring sufficient staffing and a balanced skills mix; however, nurse presenteeism has an 'invisible' impact on nurses, patients and the organisation (Hemp, 2004; Kinman, 2019).

In the nursing population, research shows significant relationships between presenteeism and work environment, perceived stress and work–life balance. Stress and nurse presenteeism were positively correlated, whereas work–life balance was negatively related to presenteeism. The relationships between work and presenteeism, and presenteeism and missed care, presenteeism and burnout were significant. The Presenteeism in Nursing Model (*Figure 15*) was developed by Rainbow et al. (2021) to demonstrate the multiple antecedents and consequences of presenteeism, based on Johns' (2010) Dynamic Model of Presenteeism and Absenteeism. Longitudinal research is needed in the future to explore the antecedents and consequences of nurse presenteeism, the impact of presenteeism on caring responsibilities, and the way nurses are coping, over time.

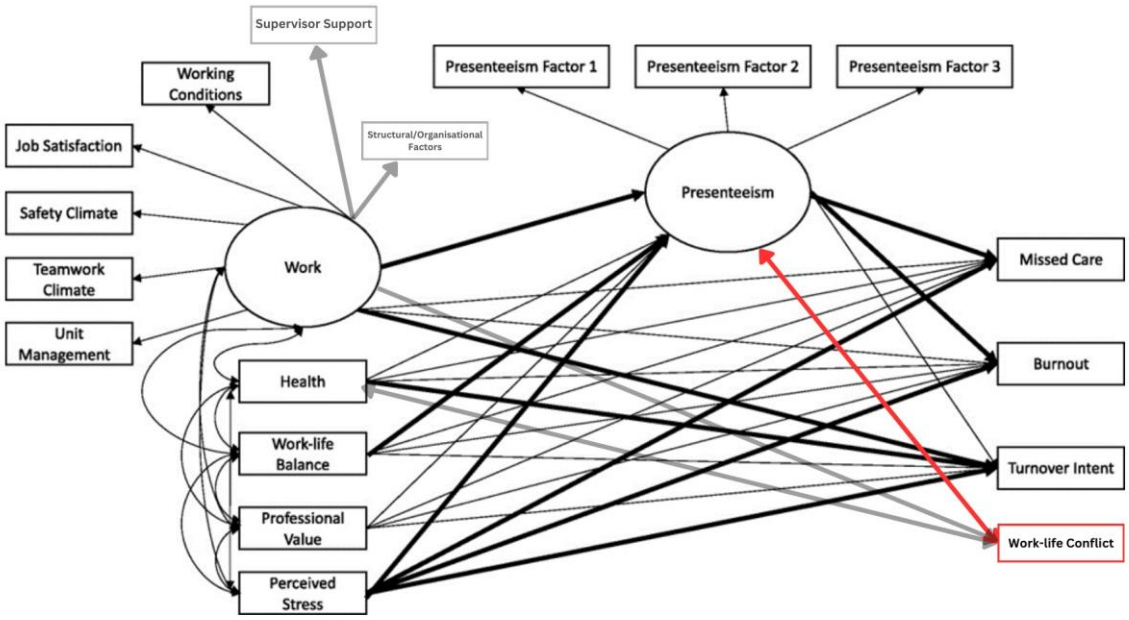
Figure 15. The Presenteeism in Nursing Model (with significant relationships in bold)



Source: Rainbow et al. (2021)

The Adapted Presenteeism in Nursing Model (*Figure 16*) has been adapted to include findings from this research. Supervisor support and structural/organisational factors are categories relating to work factors which contribute to presenteeism. These work factors can lead to work-life conflict, and work-life conflict may reduce health. Work-life conflict both occurs from presenteeism and leads to presenteeism. This significant relationship confirmed by quantitative and qualitative results of this study is indicated by a solid red line. Lines in grey indicate relationships which need to be confirmed with further research.

Figure 16. The Adapted Presenteeism in Nursing Model (with significant relationships in bold)



Source: Adapted from Rainbow et al. (2021)

The link between nurses' work-life conflict, and stress and burnout, needs to be considered. Nurses with dependent children have reported a statistically significant decrease in their work–life balance, compared with those without young children (Gribben & Semple, 2021). Further, a study of

health professionals by Gonçalves et al. (2019) demonstrated that various stress factors, including stress from the work–home interface, and challenges in balancing work and home life, were significant predictors of the three burnout dimensions: physical fatigue, cognitive weariness and emotional exhaustion. Symptoms of burnout derived from inadequate recovery from sickness, lead to presenteeism- and perpetuation of this cycle (Dewa et al., 2014; Ospina et al., 2015; Yang et al., 2016). The limited availability of childcare (due to shift times) is a source of stress and conflict between work and home (Rodrigues & Higarashi, 2014).

This research also explores the link between work-life conflict and nurse presenteeism as a feminist issue. Globally, 80% of nurses and midwives identify as women, who bear the primary responsibility for caring for children, elderly relatives and other dependants more frequently than men (Boniol et al., 2019). This can create conflict between work and caring responsibilities and make it challenging for nurses to take time off when they are unwell. This challenge was also significantly amplified by the onset of the COVID-19 pandemic, which occurred while data for this study were being collected. While the links between the COVID-19 pandemic, work-life conflict and presenteeism were not directly explored in this study, there are certainly related concerns posed by the pandemic. Nursing during a pandemic is stressful and extremely demanding in terms of workload and job demands, which can lead to anxiety, depression and anger (Graham et al., 2020; Huang et al., 2020). Nurses often experience concerns such as fear of infecting their loved ones; the need to hire someone to take care of their child/ren, elderly family member or pet during work time; and the impact on homelife (O'Sullivan et al., 2009; Sperling, 2021) which can exacerbate work-life conflict. Further, research suggests that women have been more adversely affected economically by the COVID-19 pandemic than men, which given the majority female nursing workforce is concerning. This is perhaps due to the suspension of many care services such as childcare, school, senior care and assistance with domestic duties (Chen & Bougie, 2020).

There are significant challenges in balancing the professional responsibilities of nursing with caregiving at home. Despite the increasing number of households with two working parents over recent decades, women still predominantly bear the responsibility for caregiving and household

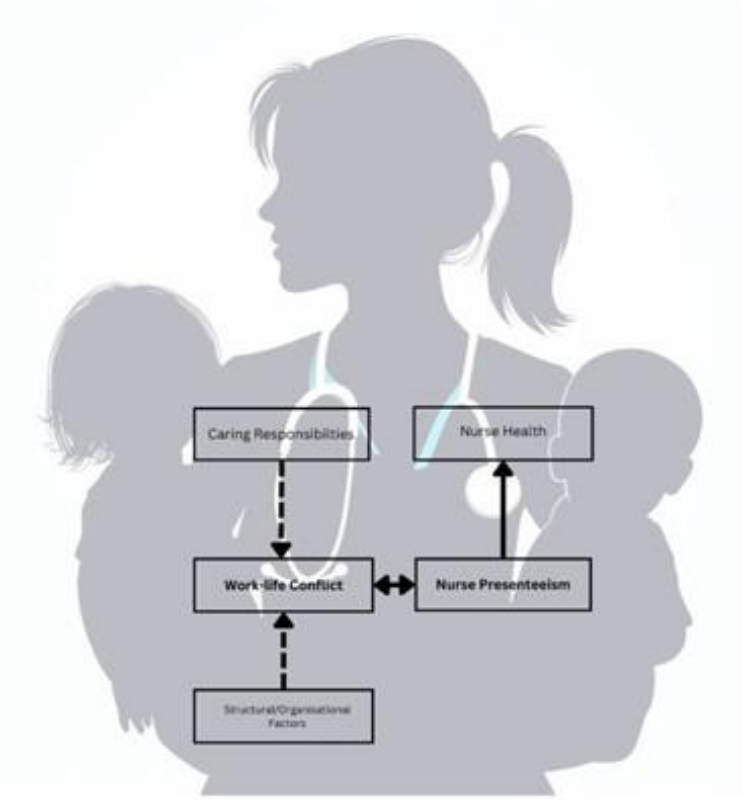
chores (Carlson et al., 2020; Miller, 2018). And although the role of women is gradually evolving, women continue to be the predominant family caregivers, regardless of whether they work outside the home or not (Clendon & Walker, 2017).

This study illustrates the stress and complexities experienced by women as they attempt to navigate work-life conflict. The data reveal that navigating both nursing work and caregiving responsibilities remains exceptionally demanding, leading to personal, familial and work-related sacrifices. This corresponds with the research of Hjálmsdóttir and Bjarnadóttir (2021), which highlights the challenges of continually juggling work and caring for children. This constant juggling places substantial pressure on mothers or primary caregivers, often resulting in feelings of guilt and frustration when everything cannot be accomplished, or performance is reduced. The stress and juggle of caring for children and/or ageing parents, in addition to managing nursing work, is a major issue facing nurses (Asiedu et al., 2018; Clendon & Walker, 2017; Ong et al., 2023) encompassing all genders. Competing needs at work and home can decrease the physical and mental health of caregivers. Parents working in healthcare professions also face increased caregiving-related barriers to career advancement.

The meta-inference of this study is that nurses are experiencing intensified work-life conflict due to the impact of structural and organisational work factors, combined with the demands of caring responsibilities. This can both result in presenteeism and be the cause of presenteeism. Presenteeism decreases nurses' health-related quality of life.

This is depicted in *Figure 11*. Solid lines denote significant findings, and dashed lines signify correlations which need to be confirmed with further research. The background image represents the feminist lens, with which these findings are framed.

Figure 17. Theoretical representation of study findings



The results of this study highlight the complex challenges that nurses encounter in managing the balance between their professional responsibilities and caregiving roles. The data reveals that the task of juggling nursing duties and caregiving responsibilities is more demanding than ever, leading to compromises on personal, family, and work fronts.

This conflict may been exacerbated by the COVID-19 pandemic, which has placed additional stress on health professionals and healthcare systems. The COVID-19 pandemic has impacted organisations globally, increasing work demands and requiring continuous adaptation (Kniffin et al., 2021). Nurses may be working longer hours, facing increased risk of exposure to the virus, and dealing with the emotional toll of caring for critically ill patients. The consequences of the crisis could detrimentally affect individuals' lives, work, and career trajectories as the demands of balancing work and family responsibilities become increasingly challenging (Rudolph et al., 2021). In addition to the significant increase in work demands, research shows that women also still shoulder the

majority of care and household tasks despite the rise in dual-income households (Carlson et al., 2020; Miller, 2018).

In addition to the pandemic, structural and organisational factors within the nurses' workplaces also intensify this work-life conflict. These could include long working hours, understaffing, lack of resources, and inadequate support from management. These factors can make it more challenging for nurses to balance their professional responsibilities with their personal life, leading to increased stress and potential burnout. Previous research has found that work-family conflict inversely affects health status and job satisfaction for nurses working in high-dependency and general settings (Haji Matarsat et al., 2021).

Work-family conflict is a concerning issue as it can impact not only the wellbeing of the nurses but also the quality of care they provide to their patients. Women in nursing, who have caring responsibilities, are required to navigate multiple personal, familial, and work-related demands on their time, cognition, and energy. These demands may lead to an increase in presenteeism, and a decrease in work functioning, health-related quality of life, and patient safety. Although researching of work-family conflict and presenteeism is lacking in the nursing workforce, previous research has shown that family-work conflict was a predictor of well-being among a diverse sample of nonprofessional employees, 17 percent of whom worked in healthcare (Jennings., 2008). Future research in the field of nursing should encompass a range of structural, organisational and personal factors relating to work-life conflict and nurse presenteeism.

Increasing recognition of the mental, cognitive and emotional load that mothers carry may enable understanding of the juggle of work and caring for children and/or ageing parents. Increasing sick leave entitlements for those with caring responsibilities would support nurses to balance their professional and caregiving roles, especially during times of illness or emergencies. This approach would reduce presenteeism, reduce stress and improve overall work–life balance for nurses. However, the specific details of how this policy is implemented, such as the extent of the expansion and the eligibility criteria, would need to be carefully considered to ensure it is effective and

sustainable for both employees and employers. This is an opportunity to extend on the work of this thesis through future research.

This research highlights that caring responsibilities may increase rates of presenteeism, and are a significant challenge facing Australian nurses working in high acuity settings. It is crucial that employers recognise the challenges that nurses with caring responsibilities face. Nurse presenteeism is a feminist issue, linked to larger structural issues in society. To address the issue of nurse presenteeism and its links to caring responsibilities, policies and interventions that support nurses to balance their work and caring responsibilities are needed. This includes flexible scheduling, an increase in paid sick leave, and access to affordable childcare and eldercare, without which it may be difficult for women with caring responsibilities to choose to participate in the workforce.

However, for women to have a real choice regarding the work they do (nursing, caregiving in the home, or a combination of these), real value needs to be placed on the critical work that is parenting. Providing subsidised childcare to encourage more parents to re-enter the workforce does not holistically meet the needs of all women and all families. Parents need to be able to choose whether to work part-time, full-time or not at all, so the significant demands of caring for children can be managed effectively. A significant overhaul of family policy and workplace culture needs to take place.

On a broader scale, it is imperative to recognise unpaid care work as a crucial contribution to the economy. Government policies and societal norms need to be reformed to challenge gender stereotypes and ensure that unpaid work is distributed fairly among genders. By addressing these larger structural issues, we can work towards creating a more equitable and supportive work environment for all nurses, regardless of their caring responsibilities.

Limitations

There are limitations to this research which must be recognised. The process of completing this thesis was challenged by several factors, some of which led to limitations of this research. The

unexpected occurrence of the COVID-19 pandemic necessitated changes in the research process and may have introduced unforeseen variables that could have influenced the results.

Recruitment of high acuity nurses was challenging. This affected the representativeness and diversity of the sample, limiting the generalisability of the findings. Targeted paid advertising through the Universities' social media channels was used to try to increase responses. Additionally, of those who did participate there was a large amount of incomplete data, likely due to time pressure experienced by participants. Survey fatigue may also have led to incomplete data, as many of the survey questions were complex. Considering other forms of data collection, such as participants recording presenteeism as diary entries, may mitigate this in future research.

Due to time constraints of this study, a cross-sectional study design was used. Using a longitudinal study design, surveying participants monthly over 12 months, would enable a more comprehensive understanding of nurse presenteeism in high acuity settings. A longitudinal approach could facilitate the identification of presenteeism trends and changes over this time frame.

The researcher in this study acknowledges that this research is women-centred, due to the high percentage of participants (and the nursing workforce) being women, and the researchers' own experiences. This study is therefore limited because it does not include the perspectives of other genders. Further research investigating gender differences regarding nurse presenteeism and work-life conflict is needed. Conversely, the feminist pragmatist lens, with women situated at the centre of the narrative, is also a strength. New knowledge about women's experiences of nurse presenteeism and work-life conflict has been developed, because of the methodological lens with which this research was conducted. Future research should include exploring nurse presenteeism and work-family conflict from the perspective of other genders. This is an important step towards a complete picture of these issues facing nurses.

There were organisational and personal factors which also led to limitations of this study. Frequent changes in the PhD supervision team due to university restructuring and senior staff attrition posed challenges in terms of continuity and consistency of guidance throughout the research process. This affected the depth and breadth of the study, as well as influencing methodological

choices made. Lack of access to a statistician due to insufficient university resources led to a temporary delay in progress. This was addressed by seeking assistance from experts outside of the University.

Balancing care-giving responsibilities of three children with the demands of the PhD program was a significant challenge. This influenced the pace and focus of the research. Writing a thesis discussing nurse presenteeism and the conflict between work and caregiving responsibilities, while this also being the researchers' lived experience, at times led to cognitive and emotional fatigue. This introspective process, while valuable for providing a unique perspective, was mentally and emotionally taxing.

Despite these limitations, this thesis represents a deep and methodical exploration of the issue at hand, conducted carefully and considerately over seven years. The experiences of the participants are valuable and need to be shared to see what we can learn. The process of synthesising the data in a meaningful way was challenging, but the insights gained are important.

It is important to note that despite organisational and structural changes to many workplaces, leave allowances, and even government support for women seen over the last several years, nurse presenteeism and the conflict between work and caring responsibilities continue to be a problem. This underscores the relevance and importance of this research and highlights the need for further work in this space.

Conclusion

This research explored nurse presenteeism in high acuity settings in Australia. Presenteeism is a growing concern for the nursing profession, particularly in high acuity settings. This research contributes original knowledge to expand our understanding of nurse presenteeism, and its impact on nurses' health, caregiving responsibilities and health-related quality of life. The findings call for urgent attention from healthcare organisations, policymakers and society as a whole to address this pressing issue and create a more supportive, inclusive and equitable environment for nurses in Australia. The implementation of supportive policies, cultural shifts in the workplace and broader

structural changes are essential to mitigate the effects of presenteeism on nurses, patients and the wider healthcare system. There is a need for further research to more fully explore and address the complexities of presenteeism, and caregiving responsibilities, in nursing.

Chapter summary

Chapter 7 delivered an integrative discussion. This chapter highlighted the new knowledge gleaned from this research, and discussed policy and research directions. In Chapter 8, the research is summarised with an overarching conclusion.

CHAPTER 8: CONCLUSION

Chapter overview

Chapter 8 presents a summary of this research. It gives an overview of the research aim and questions, and summaries the methodology, methods and results. Recommendations and closing statements are presented.

Summary of research

Nurse presenteeism has evolved as a significant concern in the nursing profession. The primary objective of this research was to explore nurse presenteeism in high acuity healthcare settings in Australia. Through this research, various critical aspects of this phenomenon and its implications for nurses and the broader healthcare system were explored.

This was achieved by answering the research questions:

1. Within this study, what percentage of high acuity nurses in Australia report presenteeism?
2. What are the associations between nurse presenteeism, health-related quality of life, supervisor support, and patient safety?
3. What is the impact of caregiving responsibilities on the experiences of presenteeism among nurses?
4. What methods of coping with situations that lead to presenteeism do nurses find effective?
5. What policy and leadership considerations arise from nurse presenteeism in Australia?

Feminist pragmatism served as the theoretical foundation for this research, aligning with the researcher's own worldview and the study's context. Feminist pragmatism places a strong emphasis on social justice and enhancing the well-being of individuals, making it particularly relevant to healthcare in general and nursing in particular (Im, 2013; Thompson, 2014).

This research employed a convergent parallel mixed methods approach. The primary quantitative component was a cross-sectional survey, complemented by the qualitative component

of open-ended survey questions. These data were gathered simultaneously, analysed separately, then integrated in the discussion.

Work-life conflict presents significant challenges for nurses. As Ong et al. (2023) have discussed, the culture of self-sacrifice within the nursing profession exacerbates the difficulty of dual caring roles (in professional and personal life), which may compromise patient safety. Consequently, nurses, who are predominantly women, often grapple with the expectation to show up at work despite the emotional, physical and mental toll of their dual domestic and professional caring roles. Nurses with caregiving duties are particularly susceptible to burnout and job dissatisfaction (Chayu & Kreitler, 2011; Takayama et al., 2017). Presenteeism can thus be linked to the mental, physical and emotional strains of caregiving, a role that predominantly falls on women. There is a compelling need for research that explores work-life conflict and the relationship with nurse presenteeism, to identify how to better support those with caregiving responsibilities and explore strategies for managing these crucial roles.

Findings of this research show that increased levels of presenteeism stemming from impaired work functioning are associated with increased job-stress-related presenteeism and reduced health-related quality of life. Findings also reveal the challenges faced by nurses employed in high acuity healthcare environments in Australia. The intersection of caregiving responsibilities, and structural and organisational factors, increases nurse presenteeism. Nurses are contending with significant mental, physical and emotional burdens, which have been exacerbated by the work and personal challenges resulting from the COVID-19 pandemic. These challenges decrease nurse health and ultimately may negatively affect nurse recruitment and retention. Therefore, it is imperative for organisations to re-evaluate their leave policies, strengthen employee engagement, and raise awareness regarding the issue of presenteeism.

Work-life conflict can result in nurse presenteeism and may also result from presenteeism. Balancing the demands of a nursing career with the responsibilities of caring for children, ageing parents and other caregiving duties can intensify stress and burnout. Nurses with caregiving

responsibilities may be particularly susceptible to presenteeism, underscoring the necessity of further research to facilitate a more in-depth understanding of this issue.

The research also underscores the value of examining nurse presenteeism through a feminist pragmatism lens, aligning with the principles of social justice. This perspective is highly relevant to the nursing profession, which is predominantly female. The undervaluation of caregiving professions, the gender pay gap, and the challenges faced by nurses in their professional and caregiving roles underscore the critical nature of this feminist perspective in a deeper understanding of nurse presenteeism.

This thesis makes an original contribution to the understanding of nurse presenteeism in high acuity settings in Australia, with findings carrying extensive implications. It shines a light on the challenges encountered by high acuity nurses in Australia, the factors contributing to presenteeism, and the consequences of presenteeism. An in-depth evaluation of healthcare organisation leave policies and management strategies is needed.

In summary, nurse presenteeism is a multifaceted issue that necessitates action, awareness and intervention to safeguard the health and well-being of nurses, uphold the quality of patient care and strengthen the overall healthcare system. The research outcomes offer recommendations for nurse managers, organisational decision-makers and researchers in addressing work-life conflict, nurse presenteeism and promoting the welfare of the nursing workforce.

Closing statements

Many nurses experience challenges in their lives that impact their work engagement and concentration. To be human is to experience challenges in life, peaks and troughs of energy levels, and gains and losses along the way. It is not realistic to expect nurses to be fully present at work all the time. However, if nurses are not working safely then their own health, and the safety of their patients, is put at risk.

The link between nurse presenteeism and caring responsibilities has been explored in this research. The dichotomy of maintaining a professional nursing role and domestic caring responsibilities, and the guilt evoked when trying to achieve in both areas of life, is one that I experience daily. Amy Westervelt says in her book *Forget 'Having It All'*: 'We expect women to work like they don't have children, and raise children as if they don't work'. It is time that leaders and policymakers recognise the increasing challenges facing nurses in maintaining work-life balance post COVID-19. Recognising and working to address work-life conflict and presenteeism confers value on the work that occurs – caring work that is essential to safeguard our populations' health, both in the healthcare setting and in the home. It is time that caregiving roles (both professionally and domestically) are valued, to ensure the future of our nursing workforce.

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APPENDICES

Appendix A: Published literature review

International Journal of Nursing Studies 109 (2020) 103659

Contents lists available at ScienceDirect

International Journal of Nursing Studies

journal homepage: www.elsevier.com/ijns

Painting a picture of nurse presenteeism: A multi-country integrative review

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ARTICLE INFO

Article history:
Received 11 January 2019
Received in revised form 18 May 2020
Accepted 23 May 2020

Keywords:
Integrative review
Presenteeism
Productivity
Prevalence
Economic cost
Well-being
Patient safety
Nurse

ABSTRACT

Aim: To conduct a review of the impact of presenteeism as it relates to the nursing workforce.
Background: Presenteeism behaviour has been researched in the broader workforce across multiple industries including business/management, public health and occupational health. Presenteeism in nursing is particularly significant because it puts patients at risk by reducing the capacity of nurses to provide high quality care. Rates of presenteeism are particularly high in the nursing workforce and the impact of nurse presenteeism needs to be further examined and explored.
Design: An integrative review of the associated literature.
Methods: Online databases were searched for research related to presenteeism in the nursing workforce. Original primary research investigating presenteeism in the nursing workforce, in all clinical settings, in the English language and published between 2006 and 2018 were included.
Results: A total of 17 studies fit the inclusion criteria and were included in this review: 16 quantitative and 1 qualitative. Five categories emerged from the data synthesis process: 1) the prevalence of presenteeism, 2) the economic cost of presenteeism, 3) presenteeism and related health conditions, 4) presenteeism and nurse well-being, and 5) presenteeism and patient safety.
Conclusion: The scale and impact of presenteeism is rarely explicitly discussed. Further research is needed to investigate the link between presenteeism, nurse well-being quality of patient care and costs in the nursing sector.

What is already known about this topic?

- Presenteeism in the general workforce has been the focus of research for some time in other disciplines.
- Presenteeism in nursing is particularly significant because it puts patients at risk by reducing the capacity of nurses to provide high quality health care.
- Less is known about how nurse presenteeism impacts well-being, performance, productivity and patient safety.

What this paper adds

- The rate and cost of nurse presenteeism are associated with productivity losses at the worksite but the true impact of nurse presenteeism is often 'hidden'.
- Nurse presenteeism is associated with risks to nurse well-being and patient safety.
- Further research is needed to investigate the link between presenteeism, job satisfaction and quality of patient care in the nursing sector, in order to improve nursing practice.

1. Introduction

Comprising nearly 50% of the healthcare workforce (WHO, 2018), nurses are at the forefront of patient care (Aiken et al., 2012). Nurses provide patient-centred care, which enhances care outcomes (Calabresi et al., 2019; Charalambous, 2019; Yun and Choi, 2019). However, the capacity of nurses to care for patients in a way that is safe, responsible and holistic is being undermined by presenteeism (Brborovic and Brborovic, 2017; Letvak et al., 2012; Oliveira et al., 2015; Widera et al., 2010). Presenteeism occurs when an employee attends work when physically or mentally unwell (Aronsson et al., 2000; Demerouti et al., 2009; Hensel, 2011). Presenteeism can also occur when an employee has a compromised level of awareness, responsiveness or emotional, behavioural and/or cognitive engagement (Johns, 2010; Koopman et al., 2002).

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https://doi.org/10.1016/j.ijnurstu.2020.103659
0020-7489/

Table 1
Inclusion/Exclusion Criteria.

Category	Inclusion	Exclusion
Population of interest	Studies investigating presenteeism in the nursing workforce in any clinical setting.	Fields not relating to nursing such as occupational health research, teaching, informal caregiving, or if nursing healthcare professionals were not included in the sample
Subject of interest	Presenteeism (also known as sickness presenteeism)	Studies which explore other types of productivity including absenteeism and short-term disability
Type of study	Original research	Previously published literature reviews and systematic reviews
Publication language	Articles written in English	
Publication dates	2006 to 2018	Research published before 2006
Publication type	Research published in a peer-reviewed journal	

Research on presenteeism over the last four decades has focused on industries other than nursing, namely business/management, public health and occupational health (Johns, 2010). This research has explored the cost of presenteeism; definitions of presenteeism; the prevalence of presenteeism across job sectors; and the consequences of presenteeism in different industries. It was previously assumed that attending work meant being productive; however, productivity can actually be lost by employees attending work when they should not (Gosselin et al., 2013). Presenteeism burdens the economy worldwide (Barnes et al., 2008). For example, Professor Cary Cooper, a leading workplace psychologist, argued that presenteeism costs the UK economy twice as much as absence from work (Anonymous, 2015). Presenteeism cost the Australian economy, per worker per annum, approximately AUD$8338 in the health sector and AUD$8092 in the education sector in 2006 (Scuffham et al., 2014). Another study found presenteeism in Australia to be a persistent and ongoing problem, costing the economy approximately $34.1 billion per annum (KPMG, 2011). Presenteeism among nurses costs the United States approximately USD$12 billion per annum (Letvak et al., 2012). Additionally, presenteeism can be harmful to an employee's health. By delaying sick leave, employees may develop more severe illness (Demerouti et al., 2009). Presenteeism can even be life threatening in certain occupations, such as construction (Rye, 2016).

In nursing, much about presenteeism is unknown. Studies have found that presenteeism also has serious consequences for patient outcomes and is more prevalent among nurses than other occupational groups (Aronsson et al., 2000; Rainbow et al., 2019). There is a high rate of presenteeism among nurses, and this is due to multiple factors (Rainbow and Steege, 2017). Johns (2010) found that hospital cultures that exalt loyalty, teamwork and professional identity can unwittingly encourage presenteeism. Presenteeism is also promoted by difficulty in replacing staff, attitudes that staff hold towards their own health; and the increased efforts required to offset an absence (Aronsson et al., 2000; Elstad and Vabø, 2008; McKevitt et al., 1997; Rainbow, 2019). Further possible causes are the caring nature of the profession, the suboptimal health of many nurses, and intense job demands (Johns, 2010; Rainbow and Steege, 2017).

Presenteeism in nursing can be costly to the economy, to patients and to nurses themselves. Presenteeism has been linked to increased rates of medication errors, patient falls, and missed patient care (Rainbow and Steege, 2017). Presenteeism also compromises nurse health and well-being. Most studies only look at one or two of these consequences, so the cumulative impact of nurse presenteeism remains unclear.

Clearly, research on presenteeism focusing specifically on the nursing context is needed. Therefore, the questions we sought to answer in this review were:

1) What is the prevalence and cost of nurse presenteeism around the world?.
2) What factors lead to presenteeism?.
3) What is the impact of presenteeism on the health of the nursing workforce, and patient care and safety?.

2. Methods

2.1. Design

An integrative literature review design was used. This design involves the appraisal of qualitative and quantitative literature to elicit what is known about a specific topic (Souza et al., 2010). The search strategy approach described by Kable et al. (2012) was used to identify articles. The integrative review process described by Souza et al. (2010) was used to guide the design of this review.

2.2. Search methods

Following the search approach described by Kable et al. (2012), research questions were created, databases were selected and documented, search limits were determined, inclusion and exclusion criteria were created, search terms, the search process was documented and articles were assessed for relevance. Selected online databases included 1) Ovid Medline, 2) Cumulative Index to Nursing and Allied Health Literature (CINAHL), 3) Scopus and 4) PsycINFO were searched for research regarding presenteeism in the nursing workforce in October of 2018. Individual key words were used to search the title, abstract, subject headings and body of studies as a focused search process. The search limits and inclusion/exclusion criteria (*Table 1*) were chosen to ensure the studies included in search results were recent and relevant to the research questions. The final search terms used in each database was: Nurs* OR nurse OR nurses OR nursing OR "Registered Nurse" AND "presenteeism" OR sickness presenteeism OR sickness attendance OR work when ill OR work when sick OR work limitations. Please see Fig. 1 for full search strategy from Ovid Medline. The Prisma diagram in Fig. 2 documents the outcomes of the search and screen process.

2.3. Screening

Two-hundred and fifty-three articles were initially identified in the search. After removing duplicates, titles and then abstracts were screened for relevance and inclusion/exclusion criteria (see PRISMA diagram in *Fig. 2*). Articles were excluded at the abstract level mainly because they did not pertain specifically to the nursing workforce or include nurses. Articles were excluded at the full-text level mainly because they explored other types of productivity or work attendance. Eighteen relevant articles were identified after which all articles were read in full. One article was found to be difficult to comprehend due to a poor translation into English, so the decision was made to exclude that article from the review. Thus, 17 studies were selected. These studies' reference lists were manually searched to identify other relevant studies, but none were found.

(Nurs* or nurse or nurses or nursing or "Registered Nurse").ti,ab. OR exp nurses/ or exp nursing staff/ AND (presenteeism or "sickness presenteeism" or "sickness attendance" or "work when ill" or "work when sick" or "work limitations").ti,ab. OR exp Presenteeism/

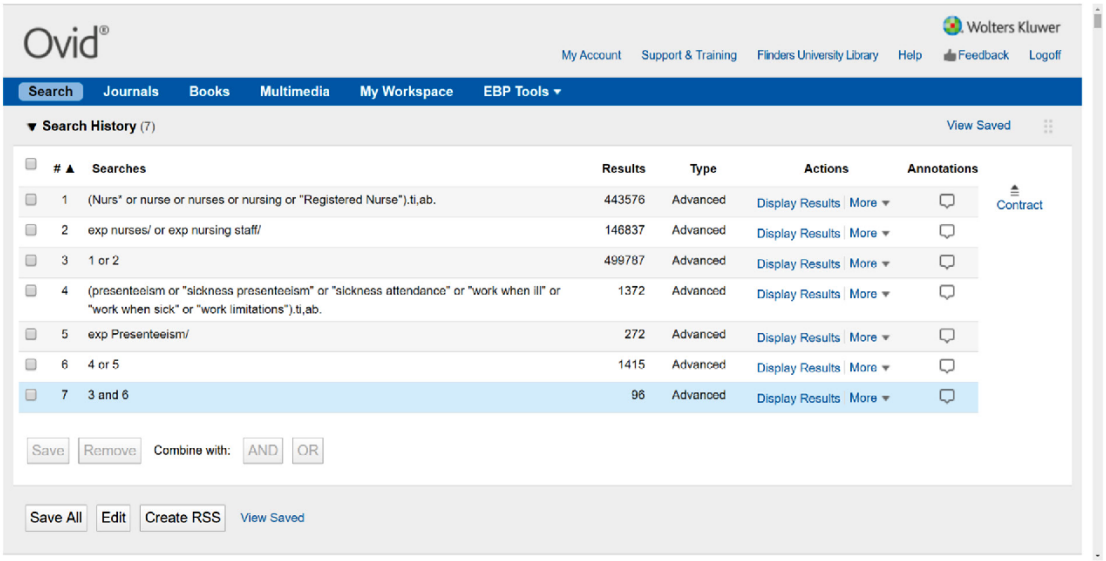

Fig. 1. Search strategy from Ovid Medline.
(Nurs* or nurse or nurses or nursing or "Registered Nurse").ti,ab. OR exp nurses/ or exp nursing staff/ AND (presenteeism or "sickness presenteeism" or "sickness attendance" or "work when ill" or "work when sick" or "work limitations").ti,ab. OR exp Presenteeism/.

2.4. Quality assessment and appraisal

A total of 17 studies met the inclusion criteria and were included in this review: 16 quantitative studies and 1 qualitative study. Design-specific quality assessment tools were used to conduct a critical appraisal of each study to evaluate the type and quality of evidence available regarding presenteeism in nursing. Cross-sectional survey studies were assessed using the Critical Appraisal of a Cross-Sectional Study Checklist (Center for Evidence Based Management, 2014). All other studies were assessed using checklists from the Critical Appraisal Skills Program (2017a,b,c) . Each study was appraised separately by two readers (MF and JR) and differences in appraisal scores were discussed until consensus was reached. Overall quality appraisal of reviewed studies is shown in Table 2 and summary information is shown in Table 3. No study met all the critical appraisal criteria. The appraisal process highlighted the studies' strengths and weakness. The most common limitation of the studies was the sampling method. Most studies did not include a power calculation and used a convenience sampling strategy within one or two healthcare settings. Also, most studies were cross-sectional rather than longitudinal. Therefore, the studies could not make inferences about a) the broader nursing population, or b) the relationship between presenteeism and other variables over time. With these limitations in mind, the studies had many strengths including their aims, response rates, use of valid and reliable measures, and data analysis.

2.5. Data synthesis

To synthesise results, the studies included in this review were systematically read, appraised, organised into main summary detail and, subsequently, organised into a summary table (Table 2). A colour-coding method as described by Taylor et al. (2011, p.84) was employed to identify keywords and phrases which appeared to be linked. Data was categorised into consistently occurring categories in the articles. Categories were discussed amongst the authors for consensus. The five final categories that emerged were: 1) the prevalence of presenteeism, 2) the economic cost of presenteeism, 3) presenteeism and related health conditions, 4) presenteeism and nurse well-being, and 5) presenteeism and patient safety (Fig. 3).

3. Findings

3.1. The prevalence of presenteeism

Of the studies in this review, 10 gave rates of presenteeism for their participant sample (Al Nuhait et al., 2017; Aysun and Bayram, 2017; Brborovic et al., 2016; d'Errico et al., 2013; Dellve et al., 2011; Demerouti et al., 2009; Rebmann et al., 2016; Rantanen and Tuominen, 2011; Schneider et al., 2017; Warren et al., 2011). These studies included an international sample of nurses from Saudi Arabia, Turkey, Croatia, Italy, Sweden, the Netherlands, Finland, the United States of America and Germany. The prevalence of nurse presenteeism was a strong focus among studies, but comparing prevalence across studies was difficult because of differences in the definition of presenteeism operationalised, the recall time frame, and the measurement tool. These operationalised definitions of presenteeism included: 'going to work despite feeling that sick leave should have been taken due to state of health' and 'attending work with a specific health condition' (e.g., low back pain). Measures of presenteeism included: a one-item measure of attendance at work when sick, The Stanford Presenteeism Scale, the World Health Organization's Health and Work Performance Questionnaire,

Table 2
Critical appraisal of studies.

Study	Critical appraisal results (*Y*= yes ?= Missing/unclear *N*= no)										
Quantitative	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
Al Nuhait et al., 2017	Y	Y	Y	Y	N	Y	Y	N	Y	N	Y
Aysun and Bayram, 2017	Y	Y	Y	Y	Y	N	Y	?	Y	N	Y
Brborovic and Brborovic, 2017	Y	Y	Y	Y	?	N	?	Y	Y	N	Y
Brborovic et al., 2014	Y	Y	Y	Y	N	N	Y	N	Y	N	Y
Brborovic et al., 2016	Y	Y	Y	Y	N	N	Y	Y	Y	N	Y
Dellve et al., 2011	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
2006Y	Y	Y	N	?	?	N	?	Y	Y	N	Y
d'Errico et al., 2013	Y	Y	Y	Y	?	N	?	Y	Y	Y	Y
Karimi et al., 2015	Y	Y	Y	Y	?	N	Y	Y	Y	?	Y
Letvak et al., 2012	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y
Martinez and Ferreira, 2012	Y	Y	Y	Y	Y	N	Y	Y	Y	N	Y
Queiroz-Lima and Serranheira, 2016	Y	Y	Y	Y	Y	N	Y	Y	N	N	Y
Rantanen and Tuominen, 2011	Y	Y	Y	Y	N	N	?	Y	Y	N	Y
Rebmann et al., 2016	Y	Y	Y	Y	?	N	?	N	Y	N	Y
Schneider et al., 2017	Y	Y	Y	Y	?	N	Y	Y	Y	N	Y
Warren et al., 2011	Y	Y	?	Y	?	Y	?	Y	Y	N	Y
Qualitative											
Kim et al., 2016	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	

and job-stress-related-presenteeism scale. Self-report time frames varied from 2 weeks to twelve months. Rates varied from 15.74% ($N = 147$) (Brborovic et al., 2016) to 86.96% ($N = 951$) (Dellve et al., 2011) (See *Table 2* for presenteeism rates in each study).

3.2. The economic cost of presenteeism

Only five of the studies in this review measured the economic cost of presenteeism (Aysun and Bayram, 2017; Letvak et al., 2012; Queiroz-Lima and Serranheira, 2016; Rantanen and Tuominen, 2011; Warren et al., 2011). These studies were conducted in Turkey, United States of America, Portugal, and Finland. Various methods of calculation were used, and there were differences in the time frames in which participants were asked to report presenteeism behaviours. These factors resulted in broad variances in cost (See *Table 2*). The diversity is made evident by these two examples: TRY 315.57 per staff member in a two-week period (Aysun and Bayram, 2017) to €32,158.86 annually (Queiroz-Lima and Serranheira, 2016).

The most common method of calculating the cost of presenteeism is the Human Capital Approach, which expresses work loss as the product of missed workdays multiplied by the worker's salary (Mattke et al., 2007). This approach, used by Warren (2011) and Letvak et al. (2012), led to cost estimates of $22,237 per employee who reported presenteeism in a sample of pharmacists and Registered Nurses and $14,439 per nurse respectively. Letvak et al. (2012) also estimated the costs concerning nurse presenteeism and the relationship to patient falls and medication errors. The increased falls and medication errors reported in this study are expected to cost USD $1346 per Registered Nurse annually, equating to a total cost of just below $2 billion annually in the United States.

3.3. Presenteeism and related health conditions

Six studies found that presenteeism in nursing is associated with a variety of health conditions and related symptoms (Aysun and Bayram, 2017; Kim et al., 2016; Letvak et al., 2012; Martinez and Ferreira, 2012; Rantanen and Tuominen, 2011; Warren et al., 2011). These studies included samples of nurses from Turkey, South Korea, the United States of America, Portugal and Finland. As expected, results consistently showed that participants with pre-existing mental, physical, and chronic health conditions had higher rates of presenteeism. Rantanen and Tuominen (2011) found that having experienced acute disease(s) during the last four weeks had a statistically insignificant effect on the extent of experienced presenteeism ($p < 0.654$).

Mental health conditions linked to presenteeism include anxiety (28.5%), and depression (8.8%) (Martinez and Ferreira, 2012). Interestingly, although depression was the least prevalent psychological disease (8.8%) in Martinez and Ferreira (2012), it affected workers for the most days per year (*Mean* = 84.0; *Standard Deviation* = 73.3). Comparatively, Warren et al. (2011) found that depression had the highest prevalence and strongest association ($p < 0.0001$) with presenteeism.

The physical health conditions strongly associated with presenteeism were fatigue, musculoskeletal issues or cold/allergy symptoms (Warren et al., 2011; Letvak et al., 2012; Aysun and Bayram 2017). In the single qualitative study included in this review, Korean Registered Nurses described their experiences of going to work while sick (Kim et al., 2016). In one instance, an interviewee described coming to work despite experiencing hip joint pain too severe to walk. Another participant described presenting for work in the operating room despite their leg being in a cast. Participants described that the reason for their presenteeism was the belief of having to fulfil their duty to work, regardless of sickness. A lack of care and consideration from colleagues may have also contributed.

3.4. Presenteeism and nurse well-being

Several studies found that presenteeism is associated with risks to nurse well-being, through exhaustion and burnout (d'Errico et al., 2013; Dellve et al., 2011; Demerouti et al., 2009; Kim et al., 2016), stress (Brborovic et al., 2016) and general well-being (Karimi et al., 2015). Studies in this category were conducted in Italy, Sweden, the Netherlands, South Korea, Croatia and Australia. Nurse presenteeism and well-being have a complex relationship. For example, some studies found that presenteeism can decrease well-being which, in turn, can increase presenteeism levels. Demerouti et al.,'s (2009) three-wave study, conducted over one-and-a-half years, showed that presenteeism leads to more exhaustion in a shorter time period (six months) and that exhaustion leads to increased presenteeism over a longer time period. A two-year cohort study showed that presenteeism was consistently associated with poor health conditions and burnout (Dellve et al., 2011). This

Table 3
Summary of included studies.

Quantitative Studies

Author/Year/Country/Title	Study Purpose	Methodology Or Methods	Sample, Setting & Response Rate (if included)	Key Findings
Al Nuhait et al., 2017/**Saudi Arabia**/***Sickness presenteeism among health care providers in an academic tertiary care center in Riyadh***	'To identify the reasons for and prevalence of sickness presenteeism and perceptions of the impact of this practice on patient safety among healthcare professionals' (p. 2)	Cross-sectional survey study	$n = 279$ Health care providers 63% of sample were Registered Nurses 1 hospital Response rate 70%	–91% of participants stated that working while sick exposed patients to risk, however the rate of sickness presenteeism during the past year was 74%. –53% of respondents were not aware of the existence of a departmental policy related to sick leave. -Reasons for working while sick: not wanting to burden co-workers (71%), feelings of duty towards patients (67%) and avoiding an increased future workload caused by absence (59%).
Aysun and Bayram, 2017/**Turkey**/***Determining the level and cost of sickness presenteeism among hospital staff in Turkey***	'To determine the associations between sickness presenteeism and socio-demographic factors, perceived health status and health complaints among hospital staff and to calculate the cost burdens and productivity losses attributed to presenteeism' (p. 501)	Cross-sectional survey study	$n = 951$ ($n = 350$ nurses/midwives) Sample of physicians, nurses, midwives and other health staff 2 hospitals Response rate 59.9%	–36.8% of participants were nurses/midwives. 58.4% of participants were female. -Presenteeism was highest among workers who were women, young, nurses/midwives, health personnel at MFH and those who describe their general health condition as bad.
Brborovic and Brborovic, 2017/**Croatia**/***Patient safety culture shapes presenteeism and absenteeism: a cross-sectional study among Croatian healthcare workers***	'To determine whether presenteeism and absenteeism were associated with patient safety culture (PSC) and in what way' (p. 185)	Cross-sectional survey study	$n = 595$ Healthcare workers (150 physicians and 445 nurses) 2 hospitals Response rate 68.95%	- Thirty-nine of 572 (6.82%) respondents reported presenteeism. Absenteeism was reported for 90 of 542 respondents (16.60%) and the mean loss of hours was almost eight hours in the previous week. -Presenteeism had a significant positive association with PSC in four dimensions: communication openness, teamwork across hospital units, handoffs and transitions, and overall perceptions of safety. This was contrary to the researchers' hypothesis that high presenteeism should entail low PSC.
Brborovic et al., 2014/**Croatia**/***Are nurse presenteeism and patient safety culture associated: A cross-sectional study***	'To investigate whether nurse presenteeism affected patient safety culture and to look deeper into the characteristics of nurse presenteeism and patient safety culture in Croatia' (p. 149)	Cross-sectional survey study	$n = 148$ Nurses 1 hospital Response rate = 76%	-This study found no association between presenteeism and patient safety culture. Participants had overall positive perceptions of safety, but other dimensions were positively rated by less than 65% of participants. The lowest positive response rate was no punitive response to error.
Brborovic et al., 2016/**Croatia**/***Looking for the possible association between stress, presenteeism and absenteeism among croatian nurses: A cross-sectional study***	'To investigate whether nurses' perceived levels of stress are associated to presenteeism and absenteeism' (p. 1)	Cross-sectional survey study	$n = 147$	-A total of 20 nurses (15.74%) experienced presenteeism, while 127 did not. Nurses with presenteeism had significantly higher levels of stress ($X = 21.24$, SD=5.62) compared to nurses who had not experienced presenteeism ($X = 17.35$, SD=6.84).

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Table 3 (*Continued*).

Quantitative Studies				
Author/Year/Country/Title	Study Purpose	Methodology Or Methods	Sample, Setting & Response Rate (if included)	Key Findings
			nurses	-Although only 15.74% of nurses reported experiencing presenteeism, nurses who had experienced presenteeism had a statistically significant higher Perceived Stress Scale Score (21.42).
Dellve et al., 2011/**Sweden**/***Work attendance among healthcare workers: Prevalence, incentives, and long-term consequences for health and performance***	'To compare three measures of work attendance, namely sickness attendance, uninterrupted long-term attendance and balanced attendance, with regard to incentives and requirements as well as effects on health performance among healthcare workers' (p. 1930)	Longitudinal survey study	1 hospital Response rate 75.77% *n* = 5300 public health care employees from random sample of 48,600 workers, from numerous sites.	-About half (44–53%) of male, female, younger, middle-aged and older healthcare professionals reported sickness attendance. The investigated attendance requirements dutifulness, effort-reward imbalance, high effort, time pressure and a stressful mood at work were positively associated with sickness attendance at baseline.
			39% of sample were Registered Nurses.	-Sickness attendance was consistently associated with the studied poor health conditions, a high burnout score, sick leave, decreased work ability and decreased performance.
Demerouti et al., 2009/**the Netherlands**/***Present but sick: A three-wave study on job demands, presenteeism and burnout***	'To examine the longitudinal relationships between job demands, burnout (exhaustion and depersonalisation), and presenteeism' (p. 50)	Longitudinal survey study	Response rate 61% *n* = 258 Staff nurses	-Overall, about 50% of employees agreed that they had come to work when they were sick at each measurement point.
			Numerous sites	-Longitudinal analysis revealed that presenteeism leads to more exhaustion in a shorter time lag (i.e. six months), and exhaustion leads to increased presenteeism over time. -As hypothesised, depersonalisation does not lead to more presenteeism over time.
d'Errico et al., 2013/**Italy**/***Low back pain and associated presenteeism among hospital nursing staff***	'To assess prevalence and risk factors of presenteeism due to lower back pain (LBP) in nursing staff' (p. 276)	Cross-sectional survey study	*n* = 174	-The overall prevalence of presenteeism due to LBP (went to work at least one day in the previous year despite LBP) in the sample was 58.2%. Presenteeism was lower among workers affected by chronic LBP (55.9%) compared with those reporting acute episodes of LBP or having taken drugs or consulted a physician or therapist for LBP in the previous year (61.9%) although this difference was not statistically significant.
Karimi et al., 2015/**Australia**/***The effects of emotional intelligence and stress-related presenteeism on nurses' well-being***	'To examine the direct and moderating effects of emotional intelligence on the presenteeism and well-being relationship' (p. 296)	Cross-sectional survey study	female nurses 1 hospital Response rate 91% *n* = 312	-Emotional intelligence was positively and significantly related to well-being which suggests that Registered Nurses with a higher level of emotional intelligence were more likely to experience higher levels of well-being. The registered nurses who were more likely to engage in presenteeism behaviour were found to be less likely to experience positive well-being.
Kim et al., 2016/**South Korea**/***Sickness Experiences of Korean Registered Nurses at Work: A Qualitative Study on Presenteeism***	'To explore and describe presenteeism experiences among Registered Nurses in South Korea' (p. 32)	Focus group interviews	Community Registered Nurses Response rate 41% *n* = 20 Registered Nurses	-All participants had experiences of presenteeism. A personal sense of responsibility or external pressure causes presenteeism.

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Table 3 (*Continued*).

Quantitative Studies

Author/Year/Country/Title	Study Purpose	Methodology Or Methods	Sample, Setting & Response Rate (if included)	Key Findings
		Constructivist grounded theory	3 focus groups	-A sick nurse coming to work but getting no consideration from her boss or colleagues leads to loss of the nursing spirit and nursing manpower. The interviewees in a bad condition came to work due to their own sense of responsibility or implicit pressure from their other nursing staff.
Letvak et al., 2012/**United States of America/*Nurses' presenteeism and its effects on self-reported quality of care and costs***	'To investigate the extent to which musculoskeletal pain or depression (or both) in Registered Nurses affects their work productivity and self- reported quality of care and considered the associated costs' (p. 31)	Cross-sectional survey study	1 hospital $n = 1171$ Registered Nurses	-Results show that both pain and depression were each significantly associated with presenteeism ($P < 0.001$). There was no evidence of an interaction between pain and depression. Presenteeism was found to be significantly associated with patient falls ($p = 0.004$; β coefficient $= 0.1680$). Therefore, presenteeism was significantly associated with patient falls, medication errors, and overall self-reported quality of care. -Calculations indicate that nurse presenteeism in hospitals is raising health care costs, with estimated U.S. costs of about $2 billion dollars annually from increased falls and medication errors alone.
Martinez and Ferreira, 2012/**Portugal/*Sick at work: presenteeism among nurses in a Portuguese public hospital***	'To describe and understand the major causes of presenteeism among nurses' (p. 300)	Cross-sectional survey study	Numerous sites Response rate 47% $n = 296$ Nurses	-Results demonstrate that there is no gender difference regarding both the mean days per year affected by presenteeism and the HCI. This study also found that perceived health status is negatively correlated with presenteeism. -The major psychological causes of presenteeism among nurses in this study was stress (33.9%) and anxiety (28.5%). Physically, lower back pain (46.1%) and breath infections (41.4%) were the most common conditions causing presenteeism.
Queiroz-Lima and Serranheira, 2016/**Portugal/*Absenteeism and presenteeism costs from occupational accidents with WRMSDS in a Portuguese hospital***	'To evaluate the impact (cost) of work-related musculoskeletal disorders for accidents involving nurses and nurses' aids in a small Portuguese hospital' (p. 27)	Cross-sectional survey study	1 hospital Response rate 49.3% $n = 50$ Nurses and nurses' aides 1 hospital	-Both the nurses' aides and the nurses had higher 'avoided distraction' mean scores (2.03; 2.63 respectively) compared with the 'complete work' mean scores (1.87 to 1.93). Nurses' aides had higher levels of presenteeism than nurses in both dimensions. -Regarding presenteeism, results showed an average loss of 19.56% productivity per working day. -The total cost of lost productivity for work-related musculoskeletal disorders due to work accidents during the period 2009–2013 was estimated to be around €16,147.85 for the nurses' and €16,011.00 for nurses' aides (calculated using the formulas proposed by Mitchell and Bates).
Rantanen and Tuominen, 2011a/**Finland/*Relative magnitude of presenteeism and absenteeism and work-related factors affecting them among health care professionals***	'To examine the extent and relative value of presenteeism and absenteeism and work-related factors affecting them among health care professionals' (p. 225)	Cross-sectional survey study	$n = 171$ (137 nurses and 32 physicians) 3 hospitals	−37.4% of respondents had experienced presenteeism during the preceding 4 weeks. The mean time at work when sick was 16.0 h and their estimated average loss of working capacity during those hours was 45.4%. -The average overall monetary value of presenteeism for the 4-week period was €273.75 per person whereas surprisingly the overall monetary value of absence due to health reasons was €373.87 per person. Therefore, presenteeism had significant economic value, although not as significant as absenteeism.

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Table 3 (*Continued*).

Quantitative Studies				
Author/Year/Country/Title	Study Purpose	Methodology Or Methods	Sample, Setting & Response Rate (if included)	Key Findings
Rebmann et al., 2016/**United States of America/*Presenteeism Attitudes and Behavior Among Missouri Kindergarten to Twelfth Grade (K–12) School Nurses***	'To identify the extent to which Missouri school nurses engage in presenteeism related to influenza-like illness (ILI), their attitudes regarding this behaviour, and predictors of reporting to work while ill' (p. 408)	Cross-sectional survey study	Response rate 62% $n = 133$ School nurses Multiple sites Response rate 33.6%	-Almost half (42.1%) of participants reported that they had worked while ill with ILI (i.e. engaged in presenteeism) at least once in the past 3 years. Nurses were more likely to exhibit presenteeism if they agreed that they would work while they had a mild illness or when they reported that they felt pressure from colleagues or supervisors to work while ill. Perceived pressure from co-workers or a supervisor to continue working was the strongest predictor of school nurse presenteeism.
Schneider et al., 2017/**Germany/*Job demands, job resources, and behavior in times of sickness: An analysis across German nursing homes***	'To analyse the effect of job demands and job resources on absenteeism, presenteeism, and the tendency to choose one behaviour (being absent or being present in times of sickness) rather than the other over the last 12 months' (P. 1)	Cross-sectional survey study	$n = 212$ Nurses working in nursing homes 15 nursing homes Response rate 48.6%	-Higher prevalence rate of presenteeism (81%) than absenteeism (72%). 50% of respondents said that presenteeism occurs more than absenteeism in times of sickness. Excessive cognitive demands do not significant affect absenteeism or presenteeism frequencies, or the tendency to choose one over the other. Role overload significantly increases both absenteeism and presenteeism frequencies.
Warren et al., 2011/**United States of America/*Cost burden of the presenteeism health outcome: Diverse workforce of nurses and pharmacists***	'To describe presenteeism, its cost burden, and comparative and interactive effects of race/ethnicity in nurses and pharmacists' (p. 90)	Cross-sectional survey study	Nurses ($n = 112$) and pharmacists ($n = 114$) Multiple sites 85.93% response rate	-The prevalence of presenteeism in the workforce of 226 nurses and pharmacists was more than half of the workforce at 52.65%. Of the 199 participants who reported presenteeism, larger percentages of pharmacists (55.26%) than nurses (50%) reported presenteeism, but differences across profession or by racial/ethnic group were not statistically significant. The mean productivity decrement for both professions was 13.2%. -The annual cost per employee with presenteeism was estimated to be USD $22,237- more than $2.6 million annually for this workforce.

is supported by Demerouti et al. (2009), who showed that presenteeism may have a detrimental effect on the well-being of nurses.

The direct and moderating effects of emotional intelligence on the work-stress-related presenteeism and well-being relationship was measured by Karimi et al. (2015); Registered Nurses with a higher level of emotional intelligence were more likely to experience higher levels of well-being. Those participants who were more likely to engage in presenteeism were less likely to experience positive well-being ($p < 0.01$). Furthermore, Dellve et al. (2011) found that presenteeism was associated with stress not only at work, but even during leisure time. Since the relationship between presenteeism and nurse health and well-being is so complex, more exploration is clearly needed.

3.5. Presenteeism and patient safety

Several studies show links between nurses' presenteeism and a decline in patient care. Specifically, presenteeism was associated with higher rates of patient falls, medication errors, and patient safety culture (Brborovic and Brborovic, 2017; Brborovic et al., 2014; Letvak et al., 2012). Patient safety culture (PSC) is represented across four dimensions: communication openness ($p = 0.024$), teamwork across hospital units ($p = 0.001$), hands-off and transitions ($p = 0.046$) and overall perceptions of safety ($p = 0.025$) (Brborovic and Brborovic, 2017). Interestingly, Brborovic and Brborovic (2017) found that PSC shapes absenteeism and presenteeism: participants with higher PSC scores are more likely to exhibit presenteeism, while people with lower PSC scores are more likely to exhibit absenteeism.

4. Discussion

In this integrative review, we sought to examine the impact of presenteeism on the global nursing workforce, organisational operations, and patient care and safety. After appraising 17 articles for quality, we identified five final categories: 1) the prevalence

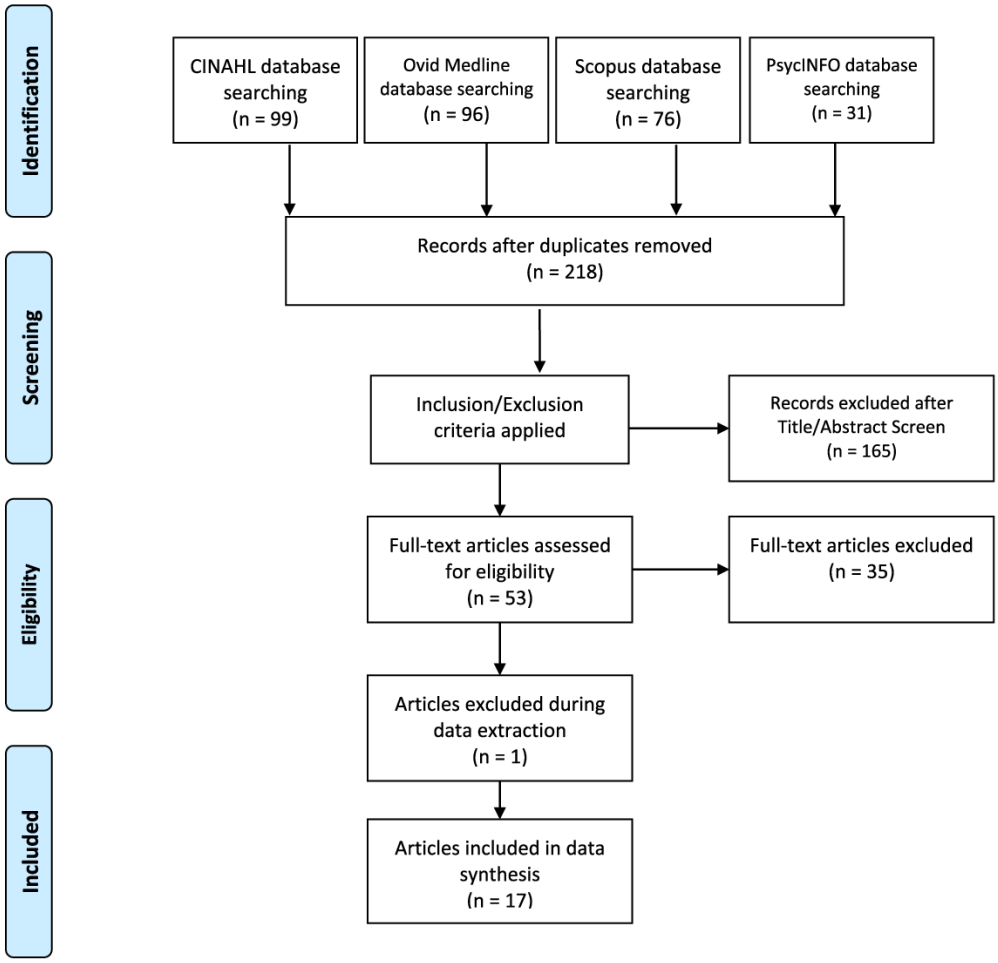

Fig. 2. PRISMA flow diagram: Retrieval of studies for the impact of nurse presenteeism
From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *P*referred *R*eporting *I*tems for *S*ystematic Reviews and *M*eta-*A*nalyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi: 10.1371/journal.pmed1000097
For more information, visit www.prisma-statement.org.

of presenteeism, 2) the economic cost of presenteeism, 3) presenteeism and related health conditions, 4) presenteeism and nurse well-being, and 5) presenteeism and patient safety. Our findings indicate that presenteeism is prevalent in the nursing workforce in many countries; that it is attributable to multiple health conditions and stress; and that it is tied to multiple consequences for the economy, patient safety, and nurse well-being.

Compared to other industries, the nursing workforce experiences higher rates of presenteeism across different presenteeism measures (Rainbow et al., 2019; Aronsson et al., 2000). One pivotal study examining presenteeism across the Swedish workforce found that 37% of respondents reported attending work while sick more than once (Aronsson et al., 2000). Occupations in the caring, helping, and teaching categories were most prone to presenteeism (Aronsson et al., 2000). Of the nine occupational groups in the care and welfare sector, the highest rates of presenteeism were reported by nursing home aids (65%), followed by nursing and midwifery professionals (49%). In comparison, Schmidt et al. (2019) reported that 25% of pharmacists self-reported 4–5 days of presenteeism during a 12-month period. In a study of presenteeism in the academic workforce, most respondents (88%) reported working while sick at least 'sometimes'. Prison workers commonly reported working while sick at least 'sometimes' (84%) with more than half (53%) doing so 'always' (Kinman et al., 2019). In the hospitality industry, 38.3% of the total sample were presentee in their work (Arjona-Fuentes et al., 2019). It is difficult to compare prevalence of presenteeism between nursing and other professions and occupations as the measurement tools and operationalised definitions of presenteeism vary widely. This review reported prevalence rates among nurses that varied from 15.74% ($N = 147$) (Brborovic et al., 2016) to 86.96% ($N = 951$) (Dellve et al., 2011). Other occupations and professions report a wide variation in prevalence, suggesting that presenteeism may be more associated with the type of occupational demands, workplace and organisational culture, and related stress more so than the occupation or profession itself.

Across occupations, workers with significant health conditions have higher rates of absenteeism and presenteeism. In nursing, the reluctance of nurses to take time off when they are sick stems from a variety of reasons including job role, social status, job and financial security, and patient care demands. Furthermore, due to variation in nursing expertise, it is often difficult to find a qualified replacement – many workers would rather work through their

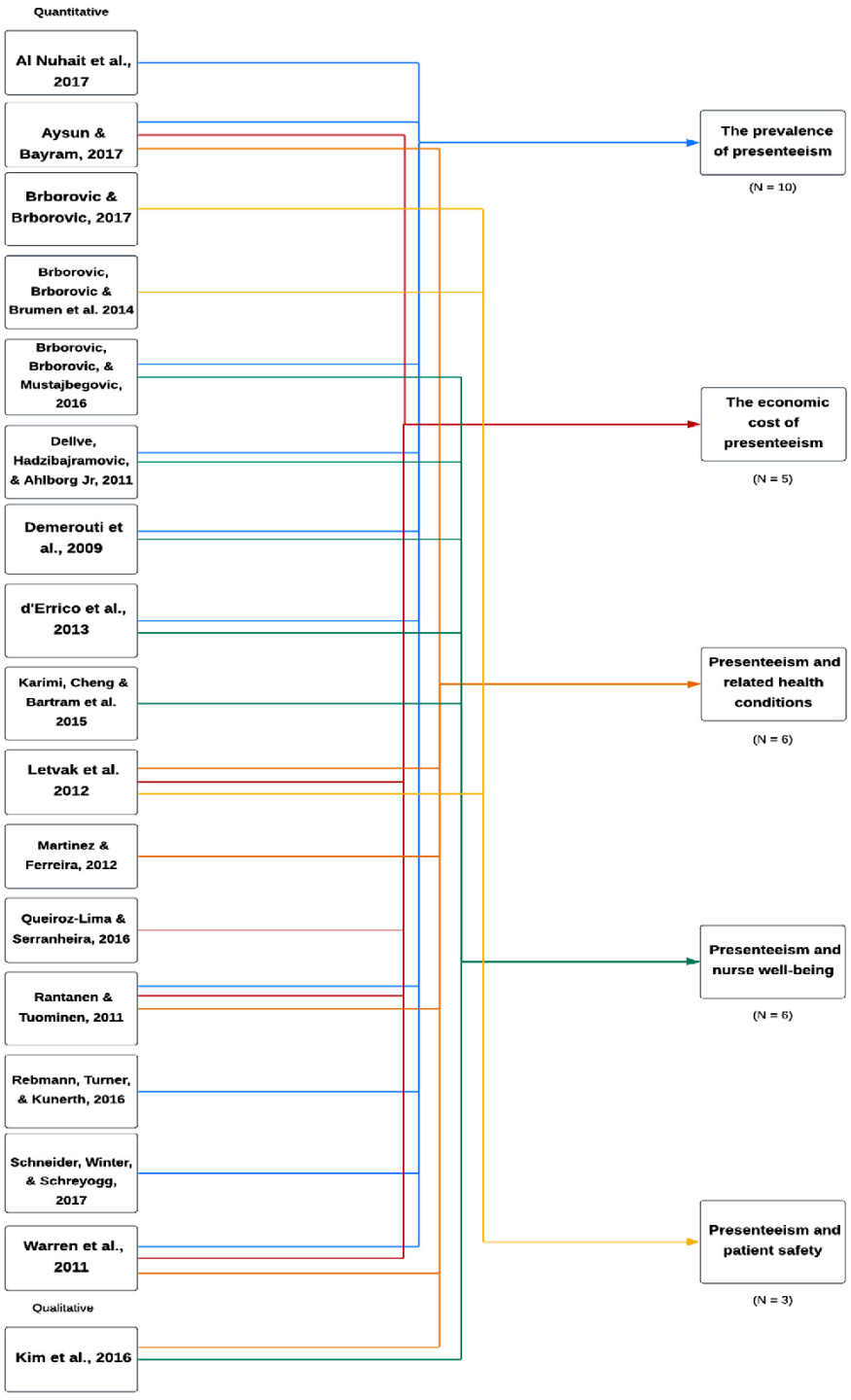

Fig. 3. Articles and identified categories.

illness rather than pass off their work to co-workers (Webster et al., 2019). Burnout is high, and illness- and stress- related presenteeism is found not only in nurses but in all healthcare professionals (Ruhle and Süß, 2019). Suboptimal mental and physical health has been reported by 54% of nurses, with over 60% report utilizing poor stress coping mechanisms (Melnyk et al., 2018; Jordan et al., 2016). Nurses also suffer frequent chronic joint and back pain, a condition shared by office workers and hospitality providers (Arjona-Fuentes et al., 2019). Also, in nursing, the influence of organisational presenteeism culture is unique: upper

management ubiquitously communicates a positive attitude toward presenteeism. Examples include, unofficial consequences, unspoken requirements for advancement, or even the risk of losing one's job, and these become perceived and shared organisational values that are prevalent in nursing (Jourdain and Chênevert, 2015).

Only five of the studies in this review measured the cost of presenteeism. Various methods of calculation were used. The most common method for calculating costs among articles reviewed was the *human capital approach*, which estimates either salary conversion or productivity loss at the business or firm level (Schultz et al., 2009). However, level of income may not adequately represent the marginal value of time to the subjects, as individuals place different values on hours of work and leisure time. Additionally, studies in the nursing context have mostly looked at presenteeism resulting from specific medical diagnoses (Letvak et al., 2012) or looked at presenteeism in more than one health care profession (Warren et al., 2011). The financial case of presenteeism in the nursing workforce was not convincingly made in any of the reviewed studies. Future research on presenteeism in the nursing workforce, with a cost analysis in addition to prevalence, is advised in order to highlight potential financial savings. There are still issues with the way the cost of presenteeism is calculated. For example, if an employee is only 60% productive, it does not necessarily translate to a loss of 40% of the value of that employee to the organisation. The current method used converts the percent decrement in productivity into hours per week that an average individual is unproductive; then, that number is multiplied by the average hourly wage. Along with asking participants to self-report presenteeism, it is unclear whether those calculations are accurate and whether the employees' productivity is 0% during those hours (Schultz and Edington, 2007). This highlights some of the limitations we identified in conducting this review. Overall, three limitations of current research to be addressed in the future are: 1) lack of congruence in presenteeism definition, 2) differences in presenteeism measures and time frames, and 3) methodological limitation of cross-sectional self-report surveys.

With the large amount of existing research on presenteeism in the general workforce, it is questionable why there are such varied definitions of presenteeism in nursing research. Presenteeism is most commonly defined as employees who are physically present, but exhibit decreased performance or productivity, and is usually attributed to illness (Rainbow and Steege, 2017). However, there appears to be little congruence across the research on how presenteeism in nursing is defined. This finding is supported by Rainbow and Steege (2017) who undertook a concept analysis and found that the definition of presenteeism in the nursing workforce lacks clarity. The following holistic definition of presenteeism was proposed:

> Physical presence at work when one should not be due to one's health and wellbeing, environment, lack of work-life balance, or sense of professional identity or obligation (Rainbow and Steege, 2017 p. 6).

The operationalisation of this definition (which includes antecedents of presenteeism) in future research may assist in addressing presenteeism in the nursing workforce more comprehensively. This aligns with the studies we read in this review, which operationalise stress- and sickness- related definitions of presenteeism (Al Nuhait et al., 2017; Aysun and Bayram, 2017; d'Errico et al., 2013; Demerouti et al., 2009; Schneider et al., 2017). We know that there is a relationship between stress and illness, so defining presenteeism more holistically in future studies and including measures of sickness and stress will increase our understanding of the true prevalence and consequences of presenteeism.

Another significant finding of this review is that the timeframe and presenteeism measure used in the studies influences the occurrence and magnitude of presenteeism that is reported. This is a weakness of many of the studies examined. The longer the timeframe, the more participants can be expected to have experienced presenteeism. For example, 26.3% of participants were found to have experienced presenteeism when using 'the last 7 days' (Boles et al., 2004) and up to 88% when using 'ever' time frames (McKevitt et al., 1997). As the time-frame increases, however, the recall bias also increases. Measures used by studies in this review varied from a one-item measure of attendance at work when sick; to the Stanford Presenteeism Scale; the World Health Organization's Health and Work Performance Questionnaire; and job-stress-related-presenteeism scale. While these measures paint a picture of presenteeism prevalence, we currently lack an understanding of the level at which presenteeism is associated with negative consequences. For example, a nurse may be at work with allergy or cold symptoms that may be nuisance, but not be substantially impacting his/her worker performance. There is a difference between an employee performing at 90% versus 20% and the related impact for healthcare costs, patient care, and nurse health and well-being. This also is key in thinking of future interventions to address presenteeism and who to target for those interventions and what the interventions should be. In order to understand the prevalence and costs associated to presenteeism, improvements to presenteeism measurements that consider the possible thresholds and related consequences are needed. As a first step, standardization of measures used around the world would greatly improve our understanding of presenteeism prevalence in different contexts.

One main methodological limitation of the reviewed studies is the single source of data, which depends upon the respondents' recall and comprehension of survey items. The strongest study designs are those with established and well-described instruments, as well as the prospective studies with reasonable follow-up periods (see *Table 2*). Many of the self-report presenteeism instruments have undergone validity and reliability-testing, but the quality of those studies varies. According to a recent systematic review, the presenteeism scales with the strongest level of evidence were the Stanford Presenteeism Scale, the Endicott Work Productivity Scale and the Health and Work Questionnaire (Ospina et al., 2015). The development of a short, reliable, comprehensive tool that would measure all aspects of presenteeism (e.g. low job performance and sickness presenteeism) in the healthcare industry should be a focus of future research. Furthermore, due to the limitations of self-reporting presenteeism, methods of real-time data collection may lead to more reliable data.

5. Limitations

A strength of this integrative review is the breadth of countries covered, allowing for comparison of nurse presenteeism from different contexts. Studies were from Saudi Arabia, Turkey, Croatia, Sweden, the Netherlands, Italy, Australia, The United States of America, Portugal, Finland, Croatia and South Korea (*Table 3*). Reviewing these studies allowed for a global view of nurse presenteeism, identifying the similarities and differences in prevalence, cost and impact.

To be included in this review, articles needed to investigate presenteeism in the nursing workforce. The definition of presenteeism is broad and it is possible that articles that used related terms (such as decreased workplace productivity, working while sick) were excluded. It is also possible that excluding articles published in languages other than English and prior to 2006 may have missed some articles that would have added to this review. However, we conducted a thorough search that yielded 218 articles for consideration and went through the reference lists of included articles to assess for possible missing articles.

6. Conclusion

This integrative review explored the concept of presenteeism in the nursing workforce through appraising, synthesising and critiquing the individual and collective results of seventeen key studies. The categories identified were the prevalence of presenteeism, the economic cost of presenteeism, presenteeism and related health conditions, presenteeism and nurse well-being, and presenteeism and patient safety. This review highlights the strengths and weaknesses and identifies gaps in the current literature. Although most research on presenteeism in the nursing workforce uses a cross-sectional design, methods are diverse in terms of measurements and definitions of presenteeism. Limited evidence exists regarding the relationship between stress-related and sickness presenteeism and well-being in nursing, nationally and internationally. While multiple articles estimated the cost of nurse presenteeism, we lack an understanding of all of the related cost consequences that may impact cost estimates. To improve nursing practice, further research is needed to investigate the link between presenteeism, nurse well-being and quality of patient care.

Declaration of Computing Interest

There is no conflict of interest to declare.

Acknowledgements

Thank you to Benjamin S. Freeling for your invaluable support with editing and for enhancing my theoretical thinking.

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Appendix B: Permission to use Job-Stress-Related Presenteeism Scale

Hello Michelle. Yes, you definitely can. It makes me happy to see it get used.

I will send you the original article with the scale items.

_____

From: Michelle Freeling [michelle.freeling@flinders.edu.au]
Sent: Sunday, September 22, 2019 8:08 PM
To: Gilbreath, James B
Subject: Requesting permission to use the Job-Stress-Related Presenteeism Scale (JSRPS)

CAUTION: THIS MESSAGE ORIGINATED OUTSIDE OF THE CSU-PUEBLO EMAIL SYSTEM

Please use caution with links and attachments unless you recognize the URL of the sender and know the content is safe. If you have any questions about this message, please report it to the Help Desk @ (719) 549-2002

Dear Dr Gilbreath,

My name is Michelle Freeling, and I am a PhD student at Flinders University in Adelaide, Australia. I am undertaking a study about the impact of nurse presenteeism in high acuity settings. I am wondering if I may have your permission to use the JSRPS as part of my survey?

Sincerely,

Michelle Freeling
RN, BNg (hons)
Monday, Wednesday, Thursday
Associate Lecturer
PhD Candidate
College of Nursing & Health Sciences
Sturt North Wing (N320) Bedford Park South Australia 5042
GPO Box 2100 Adelaide SA 5001
P: +61 8 8201 3422 7 E: michelle.freeling@flinders.edu.au<mailto:michelle.freeling@flinders.edu.au>
CRICOS No: 00114A This email and any attachments may be confidential. If you are not the intended recipient, please inform the sender by reply email and delete all copies of this message.
[cid:image001.png@01D57203.5C7DBBF0]

Appendix C: Ethics approval

APPROVAL NOTICE

Project No.:	**8279**
Project Title:	The Impact of Nurse Presenteeism in High Acuity Settings: A mixed method study
Principal Researcher:	Mrs Michelle Freeling
Email:	michelle.freeling@flinders.edu.au
Approval Date:	14 October 2019
Ethics Approval Expiry Date:	**31 December 2023**

The above proposed project has been **approved** on the basis of the information contained in the application, its attachments and the information subsequently provided.

RESPONSIBILITIES OF RESEARCHERS AND SUPERVISORS

1. **Participant Documentation**
   Please note that it is the responsibility of researchers and supervisors, in the case of student projects, to ensure that:

   - all participant documents are checked for spelling, grammatical, numbering and formatting errors. The Sub-Committee does not accept any responsibility for the above mentioned errors.
   - the Flinders University logo is included on all participant documentation (e.g., letters of Introduction, information Sheets, consent forms, debriefing information and questionnaires – with the exception of purchased research tools) and the current Flinders University letterhead is included in the header of all letters of introduction. The Flinders University international logo/letterhead should be used and documentation should contain international dialling codes for all telephone and fax numbers listed for all research to be conducted overseas.
   - the SBREC contact details, listed below, are included in the footer of all letters of introduction and information sheets.

     This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 'INSERT PROJECT No. here following approval'). For more information regarding ethics approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

2. **Annual Progress / Final Reports**
   In order to comply with the monitoring requirements of the *National Statement on Ethical Conduct in Human Research 2007 (updated 2018)* an annual progress report must be submitted each year on the **14 October** (approval anniversary date) for the duration of the ethics approval using the report template available from the Managing Your Ethics Approval web page.

   Please note that no data collection can be undertaken after the ethics approval expiry date listed at the top of this notice. If data is collected after expiry, it will not be covered in terms of ethics. It is the responsibility of the researcher to ensure that annual progress reports are

submitted on time; and that no data is collected after ethics has expired.
If the project is completed *before* ethics approval has expired please ensure a final report is submitted immediately. If ethics approval for your project expires please either submit (1) a final report; or (2) an extension of time request (using the modification request form).

First Report due date:	**14 October 2020**
Final Report due date:	**31 December 2023**

Student Projects
For student projects, the SBREC recommends that current ethics approval is maintained until a student's thesis has been submitted, assessed and finalised. This is to protect the student in the event that reviewers recommend that additional data be collected from participants.

3. Modifications to Project

Modifications to the project must not proceed until approval has been obtained from the Ethics Committee. Such proposed changes / modifications include:

- change of project title;
- change to research team (e.g., additions, removals, researchers and supervisors)
- changes to research objectives;
- changes to research protocol;
- changes to participant recruitment methods;
- changes / additions to source(s) of participants;
- changes of procedures used to seek informed consent;
- changes to reimbursements provided to participants;
- changes to information / documents to be given to potential participants;
- changes to research tools (e.g., survey, interview questions, focus group questions etc);
- extensions of time (i.e. to extend the period of ethics approval past current expiry date).

To notify the Sub-Committee of any proposed modifications to the project please submit a Modification Request Form available from the Managing Your Ethics Approval SBREC web page. Download the form from the website every time a new modification request is submitted to ensure that the most recent form is used. Please note that extension of time requests should be submitted prior to the Ethics Approval Expiry Date listed on this notice.

Change of Contact Details
If the contact details of researchers, listed in the approved application, change please notify the Sub-Committee so that the details can be updated in our system. A modification request is not required to change your contact details; but would be if a new researcher needs to be added on to the research / supervisory team.

4. Adverse Events and/or Complaints

Researchers should advise the Executive Officer of the Ethics Committee on 08 8201-3116 or human.researchethics@flinders.edu.au immediately if:

- any complaints regarding the research are received;
- a serious or unexpected adverse event occurs that effects participants;
- an unforeseen event occurs that may affect the ethical acceptability of the project.

Kind regards
Rae

Andrea Mather and Rae Tyler (Mon, Wed and Fri morning)
Human Research Ethics Officers (Social and Behavioural Research Ethics Committee)
Research Development and Support

Union Basement Building
Flinders University
Sturt Road, Bedford Park, South Australia, 5042
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P: (+61-8) 8201 3116 | andrea.mather@flinders.edu.au
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www.flinders.edu.au/research/researcher-support/

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Appendix D: Participant information sheet

College of Nursing and Health Sciences
GPO Box 2100
Adelaide SA 5001
Tel: 08 8201 3772
www.flinders.edu.au
CRICOS Provider No. 00114A

INFORMATION SHEET
(*for survey*)

Title: '*The Impact of Nurse Presenteeism in High Acuity Settings'*

Researcher
Mrs Michelle Freeling
College of Nursing and Health
Sciences Flinders University
Tel: +61 8201 3422

Supervisor(s)
Dr Di Chamberlain
College of Nursing and Health
Sciences Flinders University
Tel: +61 8 8201 3772

Dr Didy Button
College of Nursing and Health
Sciences Flinders University
Tel: +61 8 8201 3312

Description of the study
This study is part of the project titled the Impact of Nurse Presenteeism in High Acuity Settings. This project will investigate the nurse presenteeism in high acuity healthcare settings and the impact it has on the nursing workforce, managers and clients. This project is supported by Flinders University, College of Nursing and Health Sciences.

Purpose of the study
This project aims to investigate the impact of nurse presenteeism and to find out how nurse presenteeism affects nurse well-being and patient safety in high acuity healthcare settings.

What will I be asked to do?
You are invited to complete an online survey, regarding your views about nurse presenteeism. Participation is entirely voluntary. The survey will take about 30 minutes.

What benefit will I gain from being involved in this study?
The sharing of your experiences will increase our understanding of the impact of nurse presenteeism in high acuity healthcare settings.

Will I be identifiable by being involved in this study?
This survey is anonymous. Your comments will not be linked directly to you. All information and results obtained in this study will be stored in a secure way, with access restricted to relevant researchers.

Are there any risks or discomforts if I am involved?
The researcher anticipates few risks from your involvement in this study, however, given the nature of the project, some participants could experience emotional discomfort. Participation in this research is asking for you to share experiences and views relating to working while sick. Therefore, it is possible you may experience discomfort or guilt relating but not limited to: coming to work while sick, being a burden to co-workers, coming to work sick for financial gain.

You are free to withdraw from participation at any time. If any distress is experienced, please contact Lifeline Adelaide on (08) 13 11 14 for (24 hour) support / counselling that may be accessed free of charge, by all participants. You can also contact your employee assistance scheme or Work Health and Safety Officer for further support. If you have any concerns regarding anticipated or actual risks or discomforts, please raise them with the researcher using the contact details provided.

How do I agree to participate?
Participation is voluntary. You may answer 'no comment' or refuse to answer any questions, and you are free to withdraw from the survey at any time without effect or consequences.

Recognition of contribution / time / travel costs
If you would like to participate, you will go in the draw win one of eight $25.00 vouchers. You will need to provide your email address at the end of the survey, should you wish to go in the draw. If successful, the researcher will contact you to arrange delivery of the voucher by Australia Post.

Thank you for taking the time to read this information sheet, and we hope that you will accept our invitation to be involved.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number: 8279).

For more information regarding ethical approval of the project only, the Executive Officer of the Committee can be contacted by telephone on (08) 8201 3116, by fax on (08) 8201 2035, or by email to human.researchethics@flinders.edu.au

Appendix E: The survey

Thank you for choosing to participate in the survey. We value your opinion. This survey asks questions about your experiences of working while sick, also called presenteeism. The purpose of this survey is to explore the impact of nurse presenteeism on Australian nurses, and nurse managers, patient safety and nurse well-being in high acuity hospital settings. This survey has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 8279). This survey is open to nurses registered with AHPRA, who currently work in intensive care, perioperative or emergency department settings.

You can view or download the Participant information sheet which fully explains the purpose of the research and what your participation in this survey will involve. It also contains contact details for the researcher and for the Human Research Ethics Committee. Participation is entirely voluntary and anonymous. The survey will take about 30 minutes. The sharing of your experiences will increase our understanding of the impact of nurse presenteeism in high acuity healthcare settings. To thank you for your time, you will go in the draw win one of eight $25.00 gift vouchers. You will need to provide your email address at the end of the survey, should you wish to go in the draw. If successful, the researcher will contact you to arrange delivery of the voucher by Australia Post.

By clicking the 'next' button, you acknowledge that you:

- Have read and understood the Participant Information Sheet regarding this research project
- Have had any questions answered to your satisfaction
- Understand that if you have any additional questions you can contact the research team
- Understand that if you have concerns about the ethical conduct of the research project, you can contact the Flinders University Social and Behavioural Research Ethics Committee
- Agree to be a participant in the research project

Thank you

○ Yes I consent

○ No I do not consent

Are you a nurse currently registered with AHPRA?

○ Yes

○ No

In which of these clinical areas do you currently work? (please answer according to your main place of employment)

○ Intensive Care

○ Emergency Department

○ Perioperative (please specify role) _____

○ Other (please specify) _____

What is your age (in number of years)?

_____

Are you:

- ○ Male
- ○ Female
- ○ Non-Binary
- ○ Other _____

In which state or territory do you currently work as a nurse?

- ○ Queensland
- ○ Northern Territory
- ○ Western Australia
- ○ South Australia
- ○ Tasmania
- ○ Victoria
- ○ New South Wales
- ○ Outside of Australia (please specify) _____

What is the geographical setting where you work?

- ○ Urban/suburban
- ○ Regional/rural
- ○ Remote

Do you work for a public or private organisation?

- ○ Public
- ○ Private
- ○ Other (please specify) _____

Does your position involve management of staff?

- ○ Yes (please specify) _____
- ○ No

Thank you for this information. We would now like to know more about your family responsibilities and work situation.

Do you live:

- ○ Alone
- ○ With a partner
- ○ With a partner and children
- ○ With others (e.g. shared accommodation)
- ○ Other (please specify) _____

What caring responsibilities do you have outside of work? (please tick all that apply)

- ☐ None
- ☐ Dependent husband/wife/partner
- ☐ Dependent child or children
- ☐ Dependent grandchildren
- ☐ Dependent, disabled or ill family member(s)
- ☐ Dependent parent
- ☐ Dependent other relative(s)
- ☐ Other/s (please specify) _____

Do these responsibilities affect your capacity to work?

_____

_____

_____

_____

_____

Are you employed in your main job

- ○ Permanent full time (contracted to work 38 hours per week)
- ○ Permanent part time (contracted to work less than 38 hours per week)
- ○ Casual (engaged on a daily basis)
- ○ Temporary full time (contracted on a fixed term contract for 38 hours per week)
- ○ Temporary part time (contracted on a fixed term contract for less than 38 hours per week)
- ○ From an agency or locum service
- ○ Other (please specify) _____

How many years have you been working as a nurse?

_____

Please indicate your highest qualification:

- ○ Diploma
- ○ Bachelor degree
- ○ Honours
- ○ Graduate certificate
- ○ Graduate diploma
- ○ Masters degree
- ○ Doctoral degree
- ○ Other (please specify) _____

How long do you expect to work in this profession in the future? (in years)

_____

The following questions are about nurse presenteeism. Nurse presenteeism is understood to be working when unwell, or:

Physical presence at work when one should not be due to one's health and wellbeing, stressful work environment, lack of work-life balance, or sense of professional identity or obligation.

To what extent did you experience difficulty in meeting the following aspects of your work in the past 4 weeks?

	no difficulty						great difficulty
Keeping sufficient overview of your tasks	○	○	○	○	○	○	○
Not forgetting something one day	○	○	○	○	○	○	○
Working efficiently	○	○	○	○	○	○	○
Carrying out your work activities in general	○	○	○	○	○	○	○
Carrying out your work independently	○	○	○	○	○	○	○
Staying alert in your work	○	○	○	○	○	○	○
Working accurately	○	○	○	○	○	○	○
Preventing incidents in your work	○	○	○	○	○	○	○
Working carefully	○	○	○	○	○	○	○
Contact with patients and their family	○	○	○	○	○	○	○
Showing sufficient empathy towards patients and their family	○	○	○	○	○	○	○
Taking time for your patients	○	○	○	○	○	○	○
Competently handling aggressive patients or family members	○	○	○	○	○	○	○
Error-free administering/handing medication	○	○	○	○	○	○	○

I wish to explain my response(s):

_____

_____

_____

_____

_____

Relate the following statement **to your work** in the **past 4 weeks**. How much do you agree with it?

	totally disagree	disagree	disagree a little	not agree/not disagree	agree a little	agree	**totally agree**
I make mistakes more often than before	○	○	○	○	○	○	○

With respect to the **past 4 weeks**, are you someone who…

	(almost) never	once in an while	sometimes	regularly	often	very often	(almost) always
… has the feeling to have lost control over the work?	○	○	○	○	○	○	○
… does not look forward to a working day/ shift?	○	○	○	○	○	○	○
… starts the working day/ shift already moaning and groaning?	○	○	○	○	○	○	○
... works without any enthusiasm?	○	○	○	○	○	○	○

How often did you think the following in the **past 4 weeks**?

	(almost) never	once in a while	sometimes	regularly	often	very often	(almost) always
I have great difficulty in getting through a working day	○	○	○	○	○	○	○
I have the need for an extra day off to be able to get through the working week well	○	○	○	○	○	○	○

How often did the following situations occur in your work in the **past 4 weeks**?

	(almost) never	once in a while	sometimes	regularly	often	very often	(almost) always
I do not succeed in listening well to my patients	○	○	○	○	○	○	○
I notice myself that I treat patients too roughly	○	○	○	○	○	○	○

I wish to explain my response:

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How often were the following situations **with respect to your work** applicable to you in the **past 4 weeks?**

	not once	1 x per month	2-3 x per month	on average 1 x per week	on average 2-3 x per week	on average 1 x per day	on average more than 1 x per day
I have great difficulty in getting through a working day	○	○	○	○	○	○	○
I have the need for an extra day off to be able to get through the working week well	○	○	○	○	○	○	○

Answer the questions below with respect to the **past 4 weeks**. **How often did you...**

	not once	1 x per month	2-3 x per month	on average 1 x per week	on average 2-3 x per week	on average 1 x per day	on average more than 1 x per day
… almost caused incidents in your work?	○	○	○	○	○	○	○
… almost made a mistake in the administration/handing of medicines?	○	○	○	○	○	○	○
… underestimated the seriousness of a situation?	○	○	○	○	○	○	○

How often did something go wrong while you were carrying out the tasks below in the **past 4 weeks**?

	not once	1 x per month	2-3 x per month	on average 1 x per week	on average 2-3 x per week	on average 1 x per day	on average more than 1 x per day
Initiating infusion	○	○	○	○	○	○	○
Assessing which (nursing) care a patient needs?	○	○	○	○	○	○	○
Performing and reporting actions (e.g. in the nursing plan or treatment plan)	○	○	○	○	○	○	○

I wish to explain my response:

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How often did you **<u>almost</u>** do something wrong while carrying out the tasks below in **the past 4 weeks**?

	not once	1 x per month	2-3 x per month	on average 1 x per week	on average 2-3 x per week	on average 1 x per day	on average more than 1 x per day
Performing and reporting actions (e.g. in the nursing plan or treatment plan)	○	○	○	○	○	○	○

Indicate how often in the **past 4 weeks** the following has happened

	(almost) never	sometimes	regularly	often	(almost) always
Friction between you and someone from your team	○	○	○	○	○
Being irritated during work	○	○	○	○	○
Tensions between you and your colleagues	○	○	○	○	○

How often was the behaviour below applicable to you in the **past 4 weeks**?

	(almost) never	sometimes	regularly	often	(almost) always
Leaving for a moment so you can be alone	○	○	○	○	○
Avoiding conversations with your colleagues	○	○	○	○	○
Avoiding common areas	○	○	○	○	○
Avoiding working together with your colleagues	○	○	○	○	○

Relate the following statements **to your work** in the **past 4 weeks**. How much do you agree with it?

	disagree	disagree a little	not agree/not disagree	agree a little	agree
Making decisions I leave to my colleagues	○	○	○	○	○
I often only do what is absolutely necessary	○	○	○	○	○
Meetings and evaluations I avoid as much as possible	○	○	○	○	○
I prefer to do only routine jobs	○	○	○	○	○
I am often astonished at how easy it is for others to upset me	○	○	○	○	○
I often react irritated towards colleagues/ managers	○	○	○	○	○
I often get angry about matters at work	○	○	○	○	○
I often have conflicts with my manager	○	○	○	○	○
I was able to make important decisions in my work responsibly	○	○	○	○	○
I can quickly decide how to handle matters in my work	○	○	○	○	○
I know how to make the right decisions in stressful situations	○	○	○	○	○

I wish to explain my response:

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End of Block: NWFQ

Start of Block: JSRPS

Select the correct response to the following:

	1	2	3	4	5
I'm unable to concentrate on my job because of work-related stress	○	○	○	○	○
I spend a significant proportion of my workday coping with work stress	○	○	○	○	○
Work stress distracts my attention away from my job tasks	○	○	○	○	○
Mental energy I'd otherwise devote to my work is squandered on work stressors	○	○	○	○	○
I delay starting on new projects at work because of stress	○	○	○	○	○
I spend time talking to co-workers about stressful work situations	○	○	○	○	○

I wish to explain my response:

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You're doing well- you are halfway through! Thank you!

The following questions ask for your opinions about patient safety issues, medical error, and event reporting in your hospital. This section will take about 10-15 minutes to complete.

"Patient safety" is defined as the avoidance and prevention of patient injuries or adverse events resulting from the processes of healthcare delivery.

A **"patient safety event"** is defined as any type of healthcare-related error, mistake, or incident, regardless of whether or not it results in patient harm.

SECTION A: Your Unit/Work Area

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
In this unit, we work together as an effective team	○	○	○	○	○
In this unit, we have enough staff to handle the workload	○	○	○	○	○
Staff in this unit work longer hours than is best for patient care	○	○	○	○	○

This unit regularly reviews work processes to determine if changes are needed to improve patient safety	○	○	○	○	○
This unit relies too much on temporary, float, or PRN staff	○	○	○	○	○
In this unit, staff feel like their mistakes are held against them	○	○	○	○	○
When an event is reported in this unit, it feels like the person is being written up, not the problem	○	○	○	○	○
During busy times, staff in this unit help each other	○	○	○	○	○
There is a problem with disrespectful behavior by those working in this unit	○	○	○	○	○
When staff make errors, this unit focuses on learning rather than blaming individuals	○	○	○	○	○
The work pace in this unit is so rushed that it negatively affects patient safety	○	○	○	○	○

In this unit, changes to improve patient safety are evaluated to see how well they worked	○	○	○	○	○
In this unit, there is a lack of support for staff involved in patient safety errors	○	○	○	○	○
This unit lets the same patient safety problems keep happening	○	○	○	○	○

SECTION B: Your Supervisor, Manager, or Clinical Leader

How much do you agree or disagree with the following statements about your immediate supervisor, manager, or clinical leader?

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Does Not Apply or Don't Know
My supervisor, manager, or clinical leader seriously considers staff suggestions for improving patient safety	○	○	○	○	○	○
My supervisor, manager, or clinical leader wants us to work faster during busy times, even if it means taking shortcuts	○	○	○	○	○	○

My supervisor, manager, or clinical leader takes action to address patient safety concerns that are brought to their attention	○	○	○	○	○	○

SECTION C: Communication

How often do the following things happen in your unit/work area?

	Never	Rarely	Sometimes	Most of the Time	Always
We are informed about errors that happen in this unit	○	○	○	○	○
When errors happen in this unit, we discuss ways to prevent them from happening again	○	○	○	○	○
In this unit, we are informed about changes that are made based on event reports	○	○	○	○	○
In this unit, staff speak up if they see something that may negatively affect patient care	○	○	○	○	○
When staff in this unit see someone with more authority doing something unsafe for patients, they speak up	○	○	○	○	○

When staff in this unit speak up, those with more authority are open to their patient safety concerns	○	○	○	○	○	
In this unit, staff are afraid to ask questions when something does not seem right	○	○	○	○	○	

I wish to explain my response:

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SECTION D: Reporting Patient Safety Events

Think about your unit/work area:

	Never	Rarely	Sometimes	Most of the Time	Always	Does Not Apply or Don't Know
When a mistake is caught and corrected before reaching the patient, how often is this reported?	○	○	○	○	○	○
When a mistake reaches the patient and could have harmed the patient, but did not, how often is this reported?	○	○	○	○	○	○

In the past 12 months, how many patient safety events have you reported?

- ○ None
- ○ 1 to 2
- ○ 3 to 5
- ○ 6 to 10
- ○ 11 or more

I wish to explain my response:

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SECTION E: Patient Safety Rating

How would you rate your unit/work area on patient safety?

	Poor	Fair	Good	Very Good	Excellent
	○	○	○	○	○

SECTION F: Your Hospital

How much do you agree or disagree with the following statements about your hospital?

	Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The actions of hospital management show that patient safety is a top priority	○	○	○	○	○
Hospital management provides adequate resources to improve patient safety	○	○	○	○	○

Hospital management seems interested in patient safety only after an adverse event happens	○	○	○	○	○
When transferring patients from one unit to another, important information is often left out	○	○	○	○	○
During shift changes, important patient care information is often left out	○	○	○	○	○
During shift changes, there is adequate time to exchange all key patient care information	○	○	○	○	○

I wish to explain my response:

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End of Block: JSRPS

Start of Block: EuroQol

The following questions are about your health.

Please click the ONE box that best describes your health TODAY.

MOBILITY

- ○ I have no problems with walking around
- ○ I have slight problems with walking around
- ○ I have moderate problems with walking around
- ○ I have severe problems with walking around
- ○ I am unable to walk around

Please click the ONE box that best describes your health TODAY.

SELF-CARE

- ○ I have no problems with washing or dressing myself
- ○ I have slight problems with washing or dressing myself
- ○ I have moderate problems with washing or dressing myself
- ○ I have severe problems with washing or dressing myself
- ○ I am unable to wash or dress myself

Please click the ONE box that best describes your health TODAY.

USUAL ACTIVITIES (e.g. work, study, housework, family or leisure activities)

- ○ I have no problems doing my usual activities
- ○ I have slight problems doing my usual activities
- ○ I have moderate problems doing my usual activities
- ○ I have severe problems doing my usual activities
- ○ I am unable to do my usual activities

Please click the ONE box that best describes your health TODAY.

PAIN / DISCOMFORT

- ○ I have no pain or discomfort

- ○ I have slight pain or discomfort
- ○ I have moderate pain or discomfort
- ○ I have severe pain or discomfort
- ○ I have extreme pain or discomfort

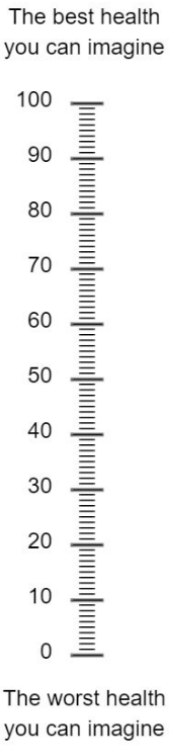
Please click the ONE box that best describes your health TODAY.

ANXIETY / DEPRESSION

- ○ I am not anxious or depressed
- ○ I am slightly anxious or depressed
- ○ I am moderately anxious or depressed
- ○ I am severely anxious or depressed
- ○ I am extremely anxious or depressed

We would like to know how good or bad your health is TODAY.

This scale is numbered from 0 to 100. 100 means the best health you can imagine. 0 means the worst health you can imagine. Please enter a number in the box below to indicate how your health is TODAY.



I wish to explain my response:

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Thank you for your participation, we value your opinion.

Q80 Should you like to enter the draw to win one of eight $25 gift cards, please provide your contact details below:

Thank you- we appreciate your time and effort.