



**ACORN**

AUSTRALIAN COLLEGE OF  
PERIOPERATIVE NURSES

**JOURNAL OF PERIOPERATIVE NURSING**

---

Volume 36 | Issue 2

Article 1

---

5-1-2023

## Discharge delay from the Post Anaesthesia Care Unit: A nursing perspective

Follow this and additional works at: <https://www.journal.acorn.org.au/jpn>



Part of the [Perioperative, Operating Room and Surgical Nursing Commons](#), and the [Quality Improvement Commons](#)



This work is licensed under a [Creative Commons Attribution 4.0 License](#).

---

### Recommended Citation

Peng, Ruowen; Saghafi, Farida; and Maxwell, Hazel (2023) "Discharge delay from the Post Anaesthesia Care Unit: A nursing perspective," *Journal of Perioperative Nursing*: Vol. 36 : Iss. 2 , Article 1.  
Available at: <https://doi.org/10.26550/2209-1092.1214>

<https://www.journal.acorn.org.au/jpn/vol36/iss2/1>

This Article is brought to you for free and open access by Journal of Perioperative Nursing. It has been accepted for inclusion in Journal of Perioperative Nursing by an authorized editor of Journal of Perioperative Nursing.

---

## Discharge delay from the Post Anaesthesia Care Unit: A nursing perspective

### Cover Page Footnote

The authors sincerely thank the PACU nurses who participated in this study.

## Authors

Ruowen Peng  
BNHons, RN  
School of Nursing,  
University of Tasmania

Farida Saghafi  
PhD, RN  
School of Nursing,  
University of Tasmania

Hazel Maxwell  
PhD  
School of Health Sciences,  
University of Tasmania

## Corresponding author

Ruowen Peng  
BNHons, RN  
School of Nursing,  
University of Tasmania

# Discharge delay from the Post Anaesthesia Care Unit: A nursing perspective

## Abstract

**Background:** The Post Anaesthesia Care Unit (PACU) is a critical junction between the operating theatre and the wards. It is essential for the close monitoring of patients before they are discharged to their destination wards for recovery. Many clinical and non-clinical factors influence the flow of patient discharge from the PACU to the wards. This study explores PACU nurses' perceptions of non-clinical factors causing discharge delays and how these impact the work of nurses.

**Method:** In this study, a descriptive qualitative methodology was implemented. This methodology is widely used in nursing and health care research as it provides a descriptive analysis of a phenomenon with straightforward descriptions of experience and perceptions. Data were collected from ten PACU nurses via in-depth, semi-structured, recorded, individual interviews. Thematic analysis using the work of Braun and Clarke was applied to gain rich insight into PACU nurses' views, values and experiences concerning discharge delay influenced by non-clinical factors.

**Findings:** Four themes related to discharge delay were identified: 'accepted as part of the day', 'wards are never ready', 'feeling frustrated, powerless and stressed' and 'empathy for patients'. The analysis of interview transcripts demonstrated that PACU nurses constantly experienced discharge delays because ward beds or ward nurses were not readily available for admitting post-operative patients from the PACU. The findings also revealed PACU nurses' perceptions of non-clinical discharge delay and how this event may induce stress, frustration and feelings of hopelessness at work. Participants expressed that discharge delay caused them stress and negative emotions or 'bad feelings' and challenged their ability to show compassion for patients.

**Conclusion:** PACU nurses perceive discharge delays due to non-clinical factors as compromising their work. Their perspective on discharge delay indicates the need to improve relevant non-clinical factors to minimise PACU nurses' work stress and to help facilitate the discharge experience of patients and nurses.

**Keywords:** post anaesthesia care unit, discharge delay, nursing perspective, stress, frustration, compassion

## Introduction

The Post Anaesthesia Care Unit (PACU) is where post-operative patients recover from the effects of anaesthesia. As a significant part of the perioperative setting, the PACU works as a critical junction between the operating theatre (OT) and surgical wards. Patients who receive general and regional anaesthesia are transferred to the PACU after surgeries for close monitoring of haemodynamic status and signs of deterioration.<sup>1</sup> Timely patient discharge from the PACU to surgical wards is crucial in maintaining patient flow.<sup>2</sup> Implementing an effective PACU discharge flow ensures that space is available in the PACU to receive new patients. This means patients' discharge from the OT is not delayed; instead, they can be transferred to the PACU promptly.<sup>2,3</sup>

Previous studies demonstrate that discharge delays impact patients, clinicians and the health system. The impact on the patient's psychological and physical recovery has been well researched.<sup>4,5</sup> Observing an emergency event or another patient in a critical condition in the PACU may cause anxiety and stress for patients.<sup>4</sup> Discharge delays from the PACU to the wards may also delay the patients' early mobilisation process.<sup>5</sup> For instance, patients who had joint replacement surgery need early mobilisation to minimise post-operative complications, and discharge delay would impact post-operative physiotherapy evaluation.<sup>5</sup> Furthermore, the impact of discharge delay on clinicians has been highlighted in various studies.<sup>6-8</sup>

Due to the critical condition of PACU patients, the patient-nurse ratio needs to be maintained at a standard level. As a result, having a higher number of patients than scheduled is not ideal.<sup>6-8</sup> This

could affect staff workload as they need to closely monitor patients who cannot be discharged on time as well as provide care to the new, immediately post-operative patients transferred to the PACU. The prolonged stay in the PACU also impacts the health care system by affecting patient flow and delaying the surgical schedule.<sup>2,3,5,9,10</sup> Timely PACU discharge, on the other hand, reduces the waiting time between each surgery and the risk of cancellations. Discharge on time also helps with PACU staff rosters, reduces hospital costs and minimises risk to patient safety.<sup>9,10</sup>

PACU discharge delays occur due to both clinical and non-clinical factors. Discharge delays associated with clinical factors have been widely discussed in the literature<sup>11-13</sup> but there is limited evidence concerning non-clinical factors causing discharge delays in the PACU. Non-clinical factors account for 25 to 30 per cent of prolonged stays in the PACU.<sup>14</sup> Three main non-clinical factors have been established: bed blocks, lack of available nurses at the clinical destination areas and patient transport shortages.<sup>5,9,14-16</sup>

This study will explore the gap in knowledge concerning the experience of registered nurses working in the PACU and focus on non-clinical factors related to discharge delay. The research explores how discharge delay influences nurses' thoughts, feelings, daily work routines and practices. This study fills a research gap by investigating the impacts of discharge delay on PACU nurses and exploring nurses' perspective on this issue which influences their work on a daily basis. These insights will inform nurse managers and administrative processes regarding these ongoing issues.

## Aim

The aim of this study is to explore registered nurses' perspectives regarding non-clinical factors influencing patients' length of stay in the PACU.

## Methods

### Design

This study used an exploratory qualitative research design to investigate PACU nurses' perspectives on their experience with discharge delays related to non-clinical factors. Exploratory research helps specify a challenge or problem and guide future study.<sup>17</sup> This methodology is widely used in nursing and health care research as it is suitable for exploring essential health care questions and defining critical clinical issues.<sup>18</sup> It can provide a descriptive analysis of a phenomenon with straightforward descriptions of experiences and perceptions.<sup>19</sup> This methodology involves the collection and analysis of individual interview data to get a better understanding of perspectives, views or experiences. In this study, using exploratory qualitative methodology assisted in recognising the phenomenon of PACU discharge delay due to non-clinical factors as perceived by participants.

Ethics approval was granted by the University Health and Medical Human Research Ethics Committees (HREC) (Reference: H0023729). Ethics approval was also provided by the HREC of the Department of Health and Human Services (Victoria) and the study site.

### Setting and participants

The study was conducted at an acute private hospital in Victoria, Australia. The hospital provides

an extensive range of health care services, including a 24-hour emergency department, intensive care, coronary care, integrated theatres, cardiac catheter laboratory and oncology services. Integrated theatres comprise seven OTs, one cardiac catheter laboratory and one PACU. The PACU has 14 bays receiving 60 to 70 post-operative patients daily, excluding public holidays and weekends, from the day surgery centre and surgical wards.

The study population consisted of ten registered nurses who work full-time or part-time with at least 12 months of experience working in the PACU. As qualitative research explores the 'why' and 'how' of a phenomenon or behaviour, this number of participants was deemed satisfactory for answering the research question. A smaller number of participants serves the purpose of the research, providing rich content analyses, and can lead to profound insight into a phenomenon.<sup>20</sup> Participants were approached via email by the researcher, who is a colleague with an equal position to the other registered nurses. Invitation emails were sent through the hospital emailing system with the participant information sheet and consent form. All participants were given pseudonyms.

## Data collection

Face-to-face interviews were organised after the information sheet and consent form were signed. The interviews were conducted in the OT office, where participants felt comfortable talking openly with the interviewer. The OT office was selected as the interview site as the location is separated from the PACU and privacy can be ensured. COVID-safe protocols were followed during data collection, including using N95 face masks and 1.5m social distance.

Semi-structured interviews were recorded and lasted for approximately 40 minutes. At the time of data collection, ten PACU nurses signed the written consent form to participate in this study. Participants were asked to describe their interactions with patients and the effects these experiences had on the nurses when patient stay in PACU was prolonged. Interviews were recorded using a digital recorder and manually transcribed into text verbatim, ensuring the findings' accuracy, credibility and reliability.

## Data analysis

The researchers used Braun and Clarke's thematic analysis framework<sup>21</sup> to identify patterns and themes from interview transcripts. The thematic analysis approach provides rich and detailed data about people's views, mentality, experiences and values, and involves identifying recurring themes across various interviews.<sup>22</sup> Data collected from audio recordings and interview transcripts were examined closely using NVivo, which assisted with grouping responses to each question, then initial codes were generated. Common threads, such as topics, ideas and patterns of meaning, were searched and found. Researchers then interpreted data and determined themes to fit the research questions.<sup>21,22</sup>

## Findings

The data concerning the nursing experience of patient discharge delay about non-clinical factors was organised under four themes: 'accepted as part of the day', 'wards are never ready', 'feeling frustrated, powerless and stressed' and 'empathy for patients'.

## Accepted as part of the day

All participants described experiences of discharge delay caused by non-clinical factors as a regular event and part of their day. They believed that as it happened every day and they had no control over it, they would accept it as part of their work. One of the participants claimed that discharge delay from non-clinical factors was happening every single day.

I would say every day, every day, but I don't know the exact number of statistics. But every single day, there are definite delays from non-clinical reasons. Because at that moment, our computer has the registration of the time starting from when we called. Then if they get delayed, it will pop up on a screen to ask you the reason for the delay. So, I would say it is every day when I work.

Ivy

One participant (Olivia) explained that although discharge delays depended on the OT list, they usually happened daily. This daily occurrence was then confirmed by another participant (Skyla). Six out of ten participants claimed that this issue had become a part of their work routine. One participant commented that as it happens so often, she is not surprised when she rings the ward and is told the bed is not ready.

Everyone is complaining about it. No one really copes with it. We all get really frustrated when we are waiting for patients to be discharged... I think we are all the same, the same attitude too, like, we cannot do anything about it or change anything. You just kind of roll your eyes, and that is what it is.

Tammy

## Wards are never ready

All participants had experienced the situation when the destination clinical area was not ready to receive the patient. This was due to multiple factors, listed by participants as lack of available beds (also known as bed block), unavailability of nurses in the wards and communication friction between PACU and ward staff. All participants identified bed block as one of the main factors leading to patients' prolonged stay in the PACU. Participants explained that patients needed to wait longer than expected to be discharged because the bed in the destination ward was unavailable.

The ward bed is not ready as the patient in that room is not ready for discharge and [out of] the room for it to be cleaned. The bed is not being cleared and not unoccupied for theatre patients, which is one of the biggest delays in hospitals.

*Lin*

The major factor to bed block is the ward expects a certain amount of discharges. Many patients are elderly, so they do not move out quickly. However, theatres keep moving, so you have patients having a prolonged stay in recovery because the ward beds are not emptied yet.

*Nina*

Another important factor mentioned by most participants was the delay caused by nurses being unavailable on the ward to receive the patient. One of the participants empathised with ward nurses who were also under high stress as they were trying to organise their break time while patients were due to arrive at the ward and fewer nurses were working on the floor. One participant (Helen) explained that finding available ward nurses to transfer patients from the PACU was challenging. Other factors

related to the lack of available nurses were ward nurses having breaks, shift handovers and the Medical Emergency Team (MET) being called to help with deteriorated patients.

Good instances are that the staff has breaks, and the handover, so they take like an hour for doing a handover... we just have to wait for them to be ready.

*Olivia*

I do not think that patients should wait for the nurses because they have to do a handover because surely not everyone is in the handover, and they need to help each other to pick up patients... Handover time, I found, is a very regular time to have ward delay.

*Ivy*

There is a funny thing on the wards when there is a MET call. The whole ward seems to shut down and, like, even though the nurses might not be [with] their patients, the ward refuses to take any other patients during that time.

*Tammy*

## Feeling frustrated, powerless and stressed

PACU nurses in this study expressed frustration as they felt powerless to prevent discharge delays. Half of the participants felt the delay was out of their control, making them feel frustrated and powerless. One participant (Helen) expressed that when a discharge delay happened, all she could do was make the patient comfortable for as long as necessary because it was a situation outside of her control. Other participants expressed frustration.

From being frustrated to getting used to it. Everybody is trying their best to do it, but it just does not seem to solve the problem.

*Ivy*

Personally, I feel frustrated that we are failing. I do not like to not do a good job. So, we are not doing a good job with discharge delays. It feels like... it is reflective of us, even though it is not a nursing issue, and we cannot do anything about it.

*Janice*

PACU nurses' frustration also resulted from feeling upset and embarrassed when patients had no choice but to stay in PACU for hours.

All participants mentioned they felt stressed due to frequent delays in discharging their patients from the PACU. The discharge delay caused bed blocks from the OT to the PACU and, as a result, PACU nurses felt stressed as they had to refuse and delay taking new patients from the OT. Furthermore, they stated that additional tasks while the patient remained in the PACU requiring their attention caused them to feel stressed. They were concerned that the increased workload could cause a delay in attending to haemodynamically unstable patients post-anaesthesia. They reported feeling embarrassed about patients' discharge delays.

Participants explained that they felt under pressure when the OT flow slowed down due to bed blocks in the PACU.

You get pressures from the theatre... the theatre keeps ringing wanting to bring a new patient out to recovery. You have told them that we are not ready as there is no bay or no nurses to look after another post-anaesthetic patient, but they will still show up in recovery. So it just gets messy, and everyone gets stressed.

*Olivia*

We cannot leave patients unattended, so we have to block them even though this theatre is ready to come out. And they will be pressuring you to come to take the patient because they need to start the next case to continue the workflow. So, it is quite stressful.

*Janice*

The PACU nurse–patient ratio is one to one for all unconscious patients, children and patients with pain protocol; two nurses to one patient for unstable patients, and one nurse to two patients ready to return to the ward.<sup>1</sup> Therefore, the problem occurs when stable patients remain in the PACU longer than expected, as the nurse–patient ratio is affected. When the patient remains in the PACU, the nurses are required to continue providing care for them; this increases nurses’ workloads and takes them away from unstable patients, inducing stress.

It is very stressful when there are so many delays, and then your patients start to want to go to the toilet, or they start to want to drink and eat. Sometimes they wait for two or three hours; of course, they will start to feel sore again. Then we have to treat their pain again from the beginning.

*Skyla*

Sometimes we can even have six, seven patients waiting. Then my staff cannot even go for breaks, because everyone has two patients. They have all reached the limit of patient ratios, so it is tough to organise people for breaks.

*Ivy*

The tense atmosphere was also identified by participants feeling stressed, as the tension was elevated in the PACU. One participant (Lin) recognised that non-clinical delays cause stress in the PACU environment. PACU nurses

were working between other units (OT and wards) and this caused friction between staff. The conflict originated from the OT staff trying to send new patients to the PACU. Then the problem could worsen when the PACU attempted to push stable post-operative patients to destination wards. Peoples’ stress escalates everyone else’s stress. Two participants (Helen and Skyla) believed they were stressed by everything else around them. However, another participant (Lin) thought this kind of conflict in the workplace should not be there in the first place.

### Empathy for patients

All participants expressed empathy for patients who experienced a discharge delay from the PACU. They were concerned that discharge delay would impact patients’ surgical experience. They believed that patients’ clinical conditions might not change but their wellbeing would be affected. The participants believed patients in the PACU could become frustrated as they were limited – they did not have their belongings, they could not relax by enjoying entertainment on television or calling or seeing their family – or they could feel isolated because their loved ones could not accompany them.

Patients are wide awake, but they do not have a TV. They do not have phones or anything that will pass the time. Yeah, they can sometimes lie there for hours, just watching everything else in the room, which is not fair for other patients. They are waking up, but it is just not what they need. It is a private hospital – they should be moved on nice and quickly.

*Tammy*

One participant (Ran) felt terrible and embarrassed that she was not providing the service she had promised patients.

You get frustrated. And yeah, you do. You get upset. You can’t. It’s not good caring to have someone sitting there for hours. Just lying there like, yeah, and the only reason they’re there is that you can’t move them on.

*Ran*

Another participant (Skyla) also expressed feeling upset because patients should not wait so long. She believed patients expected that they could come in for a procedure without delay.

PACU nurses consider discharge delay as being unfair to patients.

It is unfair to patients to get exposure to noise and stimulation that they do not need. It is unfair to see other sick patients suffering from pain or unconscious patients intubated with a breathing tube.

*Lin*

This participant (Lin) also believed the PACU was unsuitable for patients after they had recovered from the immediate post-anaesthetic phase. Another participant (Skyla) had a similar view.

The whole patient journey should be considered, and being discharged from recovery to the ward is a part of their care because you do not want to have an unhappy patient. That just takes away from the whole experience of being in hospital.

*Skyla*

Other participants (Olivia and Jennifer) reported frustration because, as nurses, they believe they are supposed to be the patient’s advocate and focus on their primary care responsibilities.

Although you need to focus on a new unconscious patient, you are still trying to make the [earlier] patient feel that they are cared for and getting everything they need in the PACU environment. It is not really the right environment for patients ready to be discharged.

*Jennifer*

The patients' holistic health care needs were another concern discussed by PACU nurses.

Participants stated that the PACU is designed for the first phase after anaesthesia and as a quick turnover, critical department. Therefore, the setting of the PACU is not intended to meet all patients' physical and emotional needs. Hence, when a patient stayed longer than expected while they were haemodynamically stable, their other needs would not have been met. This was a concern for participants in this study. For example, one participant commented that PACU nurses could only offer patients bedpans. Another participant empathised with patients' concerns if their next of kin had already been updated with their status. The PACU nurses believed the patient experienced anxiety if their family waited outside while they could not be with them or when they saw other patients being discharged and still waiting to transfer to another clinical area.

I think because we give higher level care in recovery, that care is not compromised. The only thing is their physical needs, to feel normal to go to the toilet in the ward or have things even to drink. And maybe they just want to watch television or so in their room. They finished their surgery, and they are awake. They want to go back to normal, you know, at least a bit normal to be in the room. So that part of the more emotional needs, you know, and they can see their family in the room too.

*Ivy*

## Discussion

This study's findings have uncovered PACU nurses' experiences regarding delayed patient discharge from the PACU to inpatient wards caused by non-clinical factors. The analysis of the interviews demonstrates that the experience of discharge delay for PACU nurses appears to be closely related to the lack of available beds and staffing in destination wards as this results in delayed transfer of patients from the PACU. All participants expressed concerns about the lack of available ward beds or ward nurses causing discharge delays in the PACU. The interviews also reveal PACU nurses' perception of non-clinical discharge delay and how this event would induce feelings of stress, frustration and hopelessness at work.

Australian studies conducted by Cobbe and Barford<sup>9</sup> and Cowie and Corcoran<sup>14</sup> discuss how non-clinical factors impact discharge flow. However, only one study in Pakistan examines nurses' general experiences related to the effects of prolonged PACU stays.<sup>23</sup> Compared with previous studies, the current study focused on non-clinical factors that cause discharge delays. It explored PACU nurses' experiences and the impact that discharge delays have on their thoughts, feelings and daily work.

Despite being a daily event, PACU nurses felt stressed about discharge delays and frustrated because they could not do anything to prevent the problem. The participant narratives reveal that discharge delays from non-clinical factors constantly happen in the PACU, causing the work environment to become stressful. PACU nurses believe they are powerless to change the situation and accept it as a part of their work. The delays induce stress and negative emotions in

PACU nurses which stretches and challenges their compassion for their patients and, if accumulated, can further exacerbate burnout and compassion fatigue.<sup>24,25</sup> Studies in other nursing areas identified that burnout and compassion fatigue might negatively affect nurses' professional performance and psychological security at work.<sup>8,24-27</sup>

## Stress and negative emotions

PACU nurses in this study articulated that they experienced stress and negative emotions from the repeated discharge delays. Based on Lazarus's work on psychological stress and coping, Du et al. define stress as 'as a relationship between individuals and environment that is appraised as personally significant and as taxing or exceeding resources for coping'.<sup>28</sup> A person is likely to experience high levels of stress when they can't control something that is significant to them.<sup>28</sup> All participants in this research expressed feeling stressed when stable patients could not be transferred out of the PACU as they knew that more patients would be leaving the theatres and would need to be cared for in the PACU. Their stress level increased as the delays frequently happened. Furthermore, PACU nurses experienced high stress when they felt pressured to receive new patients from the OT to the PACU despite a lack of available PACU bays. This experience of increased stress levels has been observed in primary health care, where nurses lack control in some situations.<sup>29</sup>

In addition, PACU nurses in this study experienced feeling stressed when they needed to fit other tasks in with patient care. The primary role of PACU nurses is to monitor respiratory deterioration and examine the patient's respiratory, cardiovascular and neurological systems after anaesthesia and surgery.<sup>1</sup> However, it is difficult



for PACU nurses to focus on their primary duties and responsibilities when patients cannot be discharged on time as PACU nurses need to attend to them. For example, PACU nurses need to ring catering and organise food for patients who have fasted for a long time before having surgery as the PACU does not have proper food storage. In addition, PACU nurses need to contact the patients' destination ward to organise their discharge and get updates on when the ward can accept and pick the patients up from the PACU.

These indirect care tasks increased workload and reorientated PACU nurses' focus away from critical care, which is a nursing priority. As a result, PACU nurses feel frustrated as they cannot give patients appropriate care, making them upset and disappointed. The study by Lalani et al.<sup>23</sup> found that PACU nurses' time was consumed by indirect tasks, like becoming a transport nurse to help surgical wards transfer stable patients back, resulting in direct patient care being affected and the PACU being short staffed and therefore unable to receive new patients from OTs. Similarly, in general nursing practice, where direct nursing care includes patient hygiene and medication administration, stress develops from nurses needing to complete different tasks simultaneously and not being able to focus on the required patient care.<sup>30,31</sup>

Discharge delays increased the stress levels of PACU nurses in this study as they wished to advocate for patients and provide care to support their recovery after surgery. However, a prolonged stay in PACU might delay the process of post-operative recovery for a patient, specifically for those patients who need same-day physiotherapy evaluation.<sup>5</sup> Early

ambulation on surgery day benefits patients with less post-operative pain and greater range of motion.<sup>5</sup> Study participants reported that patients in pain needed to wait unnecessarily to receive pain relief medicines as other PACU nurses were not available to check and prepare scheduled narcotic drugs while they were occupied with caring for stable patients who did not need to stay in PACU. Therefore, the participants felt patient care was compromised, and this induced stress.

Du et al.<sup>28</sup> report a relationship between stress and negative emotions. Negative emotions are 'an unpleasant, often disruptive, emotional reaction designed to express a negative effect'.<sup>32</sup> In the present study, PACU nurses reported negative emotions such as frustration, hopelessness, embarrassment and disappointment due to discharge delays. They believed stable patients waiting for discharge become anxious if they see other patients deteriorating in the PACU. As the situation in the PACU is highly unpredictable, the critical condition of other patients can generate concerns in stable patients<sup>4</sup> and PACU nurses felt they needed to apologise to patients and explain the reason for the discharge delay. PACU nurses were frustrated that discharge delays happened frequently and felt powerless to change this.

The accumulation of continuous stress and negative emotions could cause nurses to burnout.<sup>30</sup> Many general and critical care nursing studies have shown that stress-induced burnout itself can increase the risk of missing essential nursing care and even cause errors.<sup>6,30,33</sup> Increased workloads and patient acuity have been identified as the main reasons for errors or omissions and these have the

potential to be followed by adverse patient outcomes.<sup>8</sup> Considering the increased workload due to discharge delay in the PACU, it is expected that medication error and patient care omission may occur.

## Compassion for patients and compassion fatigue

Compassion is defined by M. Simone Roach<sup>34, p.50</sup> as 'a way of living born out of an awareness of one's relationship to all living creatures'. Compassion is an essential component of the nurse-patient relationship, enabling nursing care to be based on empathy, respect and dignity.<sup>35</sup> Also referred to as intelligent kindness, compassion is critical to how patients perceive the care they receive.<sup>35,36</sup>

The narrative of PACU nurses in this study demonstrated their compassion for patients. Nurses in this study felt upset with the discharge delays that patients were experiencing and felt sorry that they had to keep patients waiting for discharge longer than expected in PACU. This is an example of PACU nurses showing their consideration and empathy for patients, and is consistent with a study by Ghaedi et al. that indicated the level of empathy in nurses is above average.<sup>37</sup>

All participants in our study emphasised that having patients wait longer than expected before transfer to the ward was not the appropriate care they wished to provide. The empathy of PACU nurses allowed them to put themselves in the patient's position and understand their feelings. Kieft et al.<sup>38</sup> showed that patients consider continuity of care and smooth transitions as part of the quality of care experienced in the hospital. The PACU nurses in this study believed the patient's journey from admission to discharge

should be considered holistically and demonstrated compassion by reacting to patients' emotions and communicating patients' sentiments. For example, study participants said they did not want their stable patients to observe patients in PACU suffering from pain or post-operative nausea and deteriorating rapidly from airway obstruction.

PACU nurses' also demonstrate compassion by shielding patients from negative emotions the nurses may have. Since nurses are in a unique and powerful position to enhance the patient experience and quality of care, they are expected to fulfil patients' needs.<sup>36</sup> In general, a nurse's role involves intense interpersonal contact and nurses are expected to show positive emotions and hide negative emotions.<sup>39</sup> The expectation of PACU nurses is the same; as a result, PACU nurses strive to hide their emotional responses – such as frustration or embarrassment as described in interviews – and express positive sentiments to patients.<sup>39</sup> In addition, since all patients in PACU have undergone a surgical trauma, PACU nurses may experience emotional, physical and psychological distress and are vulnerable to experiencing secondary traumatic stress from looking after patients who are suffering.<sup>25</sup>

The participants in this study wished to provide high-quality, compassionate care to improve patients' health and wellbeing after anaesthetic and surgery. However, PACU nurses' are over-exposed to others' suffering and recurrent discharge delays contribute to stress in their work environment so their compassion may be exhausted over time, resulting in compassion fatigue.<sup>13,25–27</sup> Compassion fatigue is 'the convergence of secondary traumatic stress and cumulative

burnout; a state of physical and mental exhaustion caused by a depleted ability to cope with one's everyday environment'.<sup>25, p.21</sup> It impacts professional performance and workplace stability in the perioperative environment. It can result in lack of interest in work and frequent absenteeism from sickness in nurses, and reduced retention and high staff turnover in health service organisations.<sup>25</sup>

### Implications for practice

The stress and negative emotions caused by discharge delays for non-clinical reasons on top of the demands of caring for critical post-operative patients can easily lead to burnout for PACU nurses. It can also result in reduced performance because of feelings of frustration and hopelessness. Therefore, understanding the experience of PACU nurses regarding discharge delay from non-clinical factors can provide insight into the impact of discharge delay on PACU nurses' performance and mental health.

Improving PACU discharge flow would enhance PACU nurses' ability to provide adequate recovery care for patients and promote patients' safety after anaesthesia and surgery. Future studies should consider ways to address individual non-clinical factors that cause discharge delay and care for PACU nurses' mental health and wellbeing.

One strategy to improve inpatient discharge flow from the wards is establishing a discharge lounge. A discharge lounge allows patients to leave their ward beds, have their personal needs attended to and wait safely for discharge thereby making ward beds available for new patients and reducing PACU discharge delays from bed block. However, the cost of implementing a discharge lounge needs to be considered, and its

efficient function is worth exploring in future studies, especially in the private health sector.<sup>40</sup>

Similarly, eliminating discharge delay will require collaboration between all relevant departments. Ward nurses might not be aware that discharge delay from the PACU to the wards affects flow in the OT and the whole surgical schedule. Staff awareness of the issues related to non-clinical factors responsible for discharge delays and the impact they have on the rest of the hospital may enhance a supportive environment.

### Limitations

This study was conducted in one Australian private, for-profit hospital. The situation may be different in other hospitals and other health care contexts, particularly public and private, not-for-profit settings.

### Conclusion

Non-clinical factors, such as bed block, influence patients' length of stay in the PACU and may cause discharge delays. Although study participants accepted discharge delays as a part of their everyday work, they experienced feelings of stress and frustration from repeated discharge delays; in particular, they felt a lack of control regarding the delays. Participants also empathised with patients waiting longer than expected for discharge, which consequently affected PACU nurses' feelings at work. Understanding PACU nurses' perspectives on discharge delay highlights the need to reduce the non-clinical factors that contribute to discharge delay. Efficient discharge within the PACU would benefit patient flow and promote quality nursing care.

## Declaration of conflicting interests

The authors have declared no competing interests with respect to the research, authorship and publication of this article.

## Funding

The authors received no financial support for this article's research, authorship and publication.

## References

1. Australian College of Perioperative Nurses Ltd (ACORN). Standards for perioperative nursing in Australia: Volume 2 – Clinical standards. 16<sup>th</sup> ed. Adelaide: ACORN; 2020.
2. Hawker R, McCamish J. Patient flow in the post anaesthetic care unit. *Dissector*. 2014;42(2):23–26.
3. Haldar R, Gupta D, Pandey H, Srivastava S, Mishra P, Agarwal A. Patient transportation delays and effects on operation theatres' efficiency: A study for problem analysis and remedial measures [Internet]. *Anesth: essays res*. 2019[cited 2021 Oct 12];13(3):554–559. DOI: 10.4103/aer.AER\_75\_19
4. Destino L, Bennett D, Wood M, Acuna C, Goodman S, Asch SM et al. Improving patient flow: Analysis of an initiative to improve early discharge [Internet]. *J Hosp Med*. 2019[cited 2021 Oct 12]; 14(1): 22–27. DOI: 10.12788/jhm.3133
5. Sibia US, Grover J, Turcotte JJ, Seanger ML, England KA, King JL et al. Decreasing postanesthesia care unit to floor transfer times to facilitate short stay total joint replacements [Internet]. *J Perianesth Nurs*. 2018[cited 2021 Oct 12];33:109–115. DOI: 10.1016/j.jopan.2016.08.007
6. Mamaril ME, Sullivan E, Clifford TL, Newhouse R, Windle PE. Safe staffing for the post anesthesia care unit: Weighing the evidence and identifying the gaps [Internet]. *J Perianesth Nurs*. 2007[cited 2021 Oct 12];22(6):393–399. DOI: 10.1016/j.jopan.2007.08.007
7. Lalani SB, Ali F, Kanji, Z. Prolonged-stay patients in the PACU: A review of the literature [Internet]. *J PeriAnesth Nurs*. 2013[cited 2021 Oct 12];28:151–155. DOI: 10.1016/j.jopan.2012.06.009
8. Kiekkas P, Tsekoura V, Fligou F, Tzenalis A, Michalopoulos E, Voyagis, G. Missed nursing care in the postanesthesia care unit: A cross-sectional study [Internet]. *J Perianesth Nurs*. 2021[cited 2021 Oct 12]; 36(3):232–237. DOI: 10.1016/j.jopan.2020.10.009
9. Cobbe KA, Barford CS. Non-clinical factors affecting PACU discharge: A clinical audit in a one-day surgery unit [Internet]. *J Perianesth Nurs*. 2018[cited 2021 Oct 12]; 33: 676–680. DOI: 10.1016/j.jopan.2016.11.012
10. Healey T, El-Othmani MM, Healey J, Peterson TC, Saleh, KJ. Improving operating room efficiency, part 1: General managerial and preoperative strategies [Internet]. *JBJS reviews*. 2015[cited 2021 Oct 12];3(10). DOI: 10.2106/JBJS.RVW.N.00109
11. Kearney D, Ruane M, Smith, C. Opioid use and extended stays in the post anesthesia care unit (PACU) [Internet]. *J Perianesth Nurs*. 2021[cited 2021 Oct 12];36(4):e22–e23. DOI: 10.1016/j.jopan.2021.06.068
12. Livesay T, Peyton, K. Reducing symptomatic postoperative hypotension in the extended stay patient [Internet]. *J Perianesth Nurs*. 2021[cited 2021 Oct 12];36(4):22. DOI: 10.1016/j.jopan.2021.06.067
13. Preston N. Post anesthesia care unit nurses' experience caring for opioid tolerant patients [Internet]. *J Perianesth Nurs*. 2021[cited 2021 Oct 12];36(4):21. DOI: 10.1016/j.jopan.2021.06.063
14. Cowie B, Corcoran P. Postanesthesia care unit discharge delay for non-clinical reasons [Internet]. *J Perianesth Nurs*. 2012[cited 2021 Oct 12];27(6):393–398. DOI: 10.1016/j.jopan.2012.05.013
15. Jain A, Muralidhar V, Aneja S, Sharma, AK. A prospective observational study comparing criteria-based discharge method with traditional time-based discharge method for discharging patients from post-anaesthesia care unit undergoing ambulatory or outpatient minor surgeries under general anaesthesia [Internet]. *Indian J Anaesth*. 2018[cited 2021 Oct 12];62(1): 61–65. DOI: 10.4103/ija.IJA\_549\_17
16. Epstein RH, Dexter F, Diez C. The distributions of weekday discharge times at acute care hospitals in the state of Florida were static from 2010 to 2018 [Internet]. *J Med Syst*. 2020[cited 2021 Oct 12];44. DOI: 10.1007/s10916-019-1496-x
17. Hunter D, McCallum J, Howes D. Defining exploratory-descriptive qualitative (EDQ) research and considering its application to healthcare. *Journal of Nursing and Health Care*. 2019;4(1).
18. Chafe R. The value of qualitative description in health service and policy research [Internet]. *Health Policy*. 2017[cited 2021 Oct 12];12:12–18. Available from: [www.ncbi.nlm.nih.gov/pmc/articles/PMC5344360/#:~:text=In%20HSP%20research%2C%20rather%20than,a%20situation%20and%20encourage%20change](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC5344360/#:~:text=In%20HSP%20research%2C%20rather%20than,a%20situation%20and%20encourage%20change)
19. Doyle L, McCabe C, Keogh B, Brady A, McCann, M. An overview of the qualitative descriptive design within nursing research [Internet]. *J Res Nurs*. 2020[cited 2021 Oct 12];25(5): 443–455. DOI: 10.1177/1744987119880234
20. Modha H, Saiyed R. How to decide when to stop? Qualitative research in management and sample size issues. *PRERANA: Journal of Management Thought and Practice*. 2017;9(1):25–31
21. Braun V, Clarke V. Using thematic analysis in psychology [Internet]. *Qual Res Psychol*. 2006[cited 2021 Oct 12];3(2): 77–101. DOI: 10.1191/1478088706qp0630a
22. Vaismoradi M, Turunen H, Bondas T. Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study [Internet]. *Nurs Health Sci*. 2013[cited 2021 Oct 12];15:398–405. DOI: 10.1111/nhs.12048
23. Lalani SB, Kanji Z, Ali F. Experiences of nurses related to prolonged-stay patients in a postanesthesia care unit in Karachi, Pakistan [Internet]. *J Perianesth Nurs*. 2012[cited 2021 Oct 12];27(1): 26–36. DOI: 10.1016/j.jopan.2011.10.003
24. Lyndon A. Burnout among health professionals and its effect on patient safety [Internet]. Rockville: Agency for Healthcare Research and Quality (AHRQ); 2016 [cited 2021 Oct 12]. Available from: <https://psnet.ahrq.gov/perspective/burnout-among-health-professionals-and-its-effect-patient-safety>
25. Wakefield E. Compassion fatigue in the perioperative environment [Internet]. *JPN*. 2018[cited 2021 Oct 12];31(2):21–24. DOI: 10.26550/2209-1092.1027
26. Pembroke N. Contributions from Christian ethics and Buddhist philosophy to the management of compassion fatigue in nurses [Internet]. *Nurs Health Sci*. 2015[cited 2021 Oct 12];18(1):120–124. DOI: 10.1111/nhs.12252
27. Peters E. Compassion fatigue in nursing: A concept analysis [Internet]. *Nurs Forum*. 2018[cited 2021 Oct 12];53(4):466–480. DOI: 10.1111/nuf.12274
28. Du J, Huang J, An Y, Xu W. The relationship between stress and negative emotion: The mediating role of rumination [Internet]. *Clinical Research Trials*. 2018[cited 2021 Oct 12];4(1): 1–5. Available from: [www.oatext.com/pdf/CRT-4-208.pdf](http://www.oatext.com/pdf/CRT-4-208.pdf)

29. Galdikien N, Asikainen P, Balčiūnas S, Suominen T. Do nurses feel stressed? A perspective from primary health care [Internet]. *Nurs Health Sci*. 2014[cited 2021 Oct 12];16(3): 327–334. DOI: 10.1111/nhs.12108
30. Jiménez-Herrera MF, Llauradó-Serra M, Acebedo-Urdiales S. Emotions and feelings in critical and emergency caring situations: A qualitative study [Internet]. *BMC Nurs*. 2020[cited 2021 Oct 12];19:60. DOI: 10.1186/s12912-020-00438-6
31. Karlsson A-C, Gunningberg L, Bäckström J, Pöder U. Registered nurses' perspectives of work satisfaction, patient safety and intention to stay – a double-edged sword [Internet]. *J Nurs Manag*. 2019[cited 2021 Oct 12];27:1359–65. DOI: 10.1111/jonm.12816
32. American Psychological Association (APA). APA Dictionary of psychology – negative emotion [Internet]. Washington: APA; 2021 [cited 2021 12 October]. Available from: [dictionary.apa.org/negative-emotions](https://dictionary.apa.org/negative-emotions)
33. Christopher K. A double bind of relational care: Nurses' narratives of caregiving at work and at home [Internet]. *Gender Issues*. 2021[cited 2021 Oct 12];39:220–235. DOI: <https://doi.org/10.1007/s12147-021-09283-6>
34. Roach MS. *Caring, the human mode of being: A blueprint for the health professions*. 2nd ed. Ottawa: The Canadian Hospital Association Press; 1984.
35. Baillie L. An exploration of the 6Cs as a set of values for nursing practice [Internet]. *Br J Nurs*. 2017[cited 2021 Oct 12];26(10):558–563. DOI: 10.12968/bjon.2017.26.10.558
36. National Health Service (NHS). *Compassion in practice: Evidencing the impact* [Internet]. London; 2016[cited 2022 Feb 10]. Available from: [www.england.nhs.uk/wp-content/uploads/2016/05/cip-yr-3.pdf](http://www.england.nhs.uk/wp-content/uploads/2016/05/cip-yr-3.pdf)
37. Ghaedi F, Ashouri E, Soheili M, Sahragerd M. Nurses' empathy in different wards: A cross-sectional study [Internet]. *Iran J Nurs Midwifery Res*. 2020[cited 2022 Feb 10];25(2):117–121. DOI: 10.4103/ijnmr.IJNMR\_84\_19. PMID: 32195156; PMCID: PMC7055183
38. Kieft RA, de Brouwer BB, Francke AL, Delnoij DM. How nurses and their work environment affect patient experiences of the quality of care: A qualitative study [Internet]. *BMC Health Serv Res*. 2014[cited 2022 Feb 10];14:249. DOI: 10.1186/1472-6963-14-249
39. Szczygiel DD, Mikolajczak M. Emotional intelligence buffers the effects of negative emotions on job burnout in nursing [Internet]. *Front Psychol*. 2018[cited 2022 Feb 10];9:2649. DOI: 10.3389/fpsyg.2018.02649
40. Joseph C, Melder A. What is the effectiveness of the discharge lounge? A rapid review [Internet]. Melbourne: Centre for Clinical Effectiveness, Monash Health; 2020. Available from: [monashhealth.org/wp-content/uploads/2020/03/Discharge-Lounge-Rapid-Review\\_Final-Feb-2020.pdf](http://monashhealth.org/wp-content/uploads/2020/03/Discharge-Lounge-Rapid-Review_Final-Feb-2020.pdf)