



# Nurses' Perspectives on Patient-Centred Care in Intraoperative Settings

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## Nursing Praxis in Aotearoa New Zealand

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Patient-centred care is a well-recognised indicator of quality healthcare. Intraoperative care occurs in a highly specialised clinical setting where there is a lack of understanding of operating room nurses' perceptions of patient-centred care and how this care is currently provided. A qualitative descriptive research design was used to explore operating room nurses' perspectives on patient-centred care in an intraoperative setting in one tertiary-level hospital in Aotearoa New Zealand. Data were collected through in-depth semi-structured interviews from nine participants between August 2021 to November 2021 and analysed using Braun and Clarke's (2013) six-phase reflexive thematic analysis. Three themes were generated: 1) providing holistic care; 2) providing collaborative care; and 3) optimising patient outcomes. The findings highlight a unique blend of technical and non-technical nursing skills aligning with broad principles of patient-centred care, even when the patient is anaesthetised. Participants emphasised the importance of establishing meaningful preoperative connections with patients and incorporating culturally safe care to facilitate intraoperative patient-centred care. These insights underline the need to develop context-specific definitions of patient-centred care for the intraoperative setting, which can inform education and training to enhance patient-centred care delivery.

### Te Reo Māori Translation

#### Ko ngā Tirohanga o tēnei mea te Tapuhi ki te Taurima Aro ki te Tūrora i roto i ngā Horopaki Poka Tinana

#### Ngā Ariā Matua

E mōhioia ana ko te taurima aro ki te tūrora tētahi tūtohu hira o te taurimatanga hauora kounga tiketike. Ka puta te taurimatanga i roto i ngā horopaki poka tinana i ētahi wāhi tiaki tūrora tino matatini nei ngā pūkenga, e tūponotia ai te kore e marama ki te titiro a te tapuhi ki te taurimatanga aro ki te tūrora, he pēhea hoki tēnei taurimatanga e horaina mai ai. I whakamahia tētahi hoahotanga whakamārama ine kounga hei tūhura i ngā kitenga o ngā tapuhi rūma poka tinana ki te taurimatanga aro ki te tūrora ki tētahi wāhi horopaki poka tinana, i tētahi hōhipera taumata tuatoru i Aotearoa. I kohia ētahi raraunga mā ētahi uiuinga āhua hāngengangenga nei mai i ētahi tāngata whai wāhi tokoiwa, mai i Ākuhata 2021 ki Nōema 2021, ā, i tātaritia nā te whakamahi i te tātari āta whakaaro mō ngā mahi, e ono ōna wāhanga, nā Braun and Clarke i hua (2013). E toru ngā tāhuhu i hua ake: 1) te hora taurimatanga torowhānui; 2) te hora taurimatanga pāhekoheko; me te 3) whakapiki i ngā putanga mā te tūrora kia eke ki ngā taumata. Hei whakatairanga ēnei kitenga i tētahi tuinga ahurei o ngā pūkenga hangarau, me ngā pūkenga tapuhi i tua atu i te hangarau, e hāngai ana ki ngā mātāpono torowhānui o te taurimatanga aro ki te tūrora, ahakoa kua tukua ngā rongoā whakamoe ki a ia. I whakaū ngā tāngata whai wāhi mai i te hira o te whakawhanaunga tūturu atu ki te tūrora i mua i te pokanga, me te tuitui mai i ngā tikanga ahurea haumarū, kia ngāwari ai te rere o te taurimatanga i roto i te horopaki poka tinana. Mā ēnei kitenga ka mōhioia te tika o

whakawhanake tautuhitanga anga ki te horopaki mō te taurimatanga aro ki te tūroro mō te horopaki poka tinana, e āwhinatia ai te akoranga, me te whakangungu, hei whakapiki i te horanga taurimatanga hāngai ki te tūroro.

## INTRODUCTION

Patient-centred care (PCC) is widely recognised as a crucial quality indicator in healthcare for its ability to improve health outcomes and enhance the patient experience (Institute of Medicine, 2001). Yet, despite its globally recognised significance in health care policy and practice, there is no universally accepted definition of PCC, resulting in variability in how it is implemented in practice (Byrne et al., 2020; Grover et al., 2022; Mitchell et al., 2022; Wasim et al., 2023). The lack of a clear definition of PCC creates challenges for nursing practice as individual nurse's perceptions of what constitutes PCC may differ, leaving ideal practice open to interpretation (Byrne et al., 2020; Sharma et al., 2015). Further, what constitutes important components of PCC in one context or patient group may differ from what is important in another (Janerka et al., 2023; Mitchell et al., 2022). Therefore, a context- and culturally- specific understanding of the core components of PCC is needed to successfully and meaningfully operationalise PCC into practice (Mitchell et al., 2022; Wasim et al., 2023; Wensley et al., 2020). While there has been growing interest in understanding PCC in various healthcare settings, research exploring PCC in the perioperative environment, particularly in the intraoperative setting, is limited. Shin and Kang (2019) developed and validated a person-centred perioperative nursing scale, providing a foundational framework to assess perioperative PCC. Similarly, Xiao and Zhu (2019) critically reflected on the role of operating room (OR) nurses in the multidisciplinary team in China, offering insights into how OR nurses can integrate PCC principles. These studies highlight the emerging focus on PCC in intraoperative settings but also underscore the need for more research in this area. In Aotearoa New Zealand, OR nurses' perceptions of PCC and the factors that facilitate this approach to care for patients undergoing surgical procedures is currently unknown. This research aims to explore PCC principles relevant to intraoperative nursing practice to understand how OR nurses perceive intraoperative PCC in one tertiary hospital.

## BACKGROUND

The concept of PCC draws heavily on the Picker's Principles of Person-Centred Care (Picker Institute Europe, 2024) which encompasses a comprehensive framework of the following eight dimensions: involvement in decisions and respect for preferences; information, communication and support for self-care; fast access to reliable healthcare advice; emotional support, empathy and respect; involvement and support for family and carers; continuity of care and smooth transitions; attention to physical and environmental needs; and effective treatment by trusted professionals. Apart from the moral justification for PCC (Russell, 2022), PCC has a positive impact not only on patient care experiences and clinical outcomes (Doyle et al., 2013; Navarro et

al., 2021; Park et al., 2018), but also on healthcare provider outcomes, such as job satisfaction and stress levels (Gustavsson et al., 2023; Park et al., 2018; van Diepen et al., 2020). Moreover, it is argued that PCC is the key to cultural competence and cultural safety (Hera, 2013; Wasim et al., 2023), as it helps address health inequities and improve health outcomes for patients (Beach et al., 2006).

In recent decades PCC has gained increasing recognition and acceptance as a core theme of high-quality health care (Australian Commission on Safety and Quality in Health Care [ACSQHC], 2011; Goodrich & Cornwell, 2008; Institute of Medicine, 2001; King, 2003). In direct response to the World Health Organization's [WHO] (2015) call to place people and communities at the centre of healthcare services, numerous reforms have been undertaken to reshape healthcare delivery globally. This has involved strategies that emphasise the need for healthcare services to focus on PCC to ensure that healthcare is more responsive and effective in meeting the unique needs of the individuals and communities they serve (ACSQHC, 2011; International Alliance of Patients' Organisation, 2020; Picker Institute, 2004; The Health Foundation, 2016). Consequently, PCC is considered an important quality indicator in healthcare assessment and evaluation.

In Aotearoa New Zealand, PCC is endorsed as a priority for quality improvement within healthcare services (MoH, 2023). Aotearoa New Zealand's specific approach to achieving PCC is outlined in documents that include the New Zealand Health Strategy (MOH, 2023); the Code of Health and Disability Services Consumers' Rights (the Code) (Health and Disability Commissioner, 1996); resources for implementing the Health Quality and Safety Commission [HQSC] Partners in Care and Patient Experience Indicators initiatives (HQSC, 2021, 2024); and He Korowai Oranga Māori Health Strategy (MOH, 2014). Since 2014 the Ministry of Health has incorporated Mauri ora principles into healthcare practices and developed He Korowai Oranga, *The Māori Health Strategy*, aimed at improving cultural responsiveness and Māori well-being (MOH, 2014). Mauri ora principles extend the traditional scope of PCC by emphasising physical, mental, social and spiritual dimensions of health and well-being, particularly within the context of Māori health and cultural identity. These principles provide a culturally unique perspective on PCC that may influence how PCC is understood and practised in Aotearoa New Zealand. International literature, such as the work by Picker Institute Europe (2024) on PCC, often lacks a focus on indigeneity, making it less applicable to the bicultural context of Aotearoa New Zealand. This observation highlights the importance of Aotearoa New Zealand's perspective on PCC that integrates global PCC principles with the unique cultural dimensions of Māori health. However, despite the general acceptance of the need for PCC, the practical implementation of PCC principles in everyday healthcare re-

mains inconsistent, reflecting challenges in translating policy into practice.

Perioperative nursing care involves nursing activities for surgical patients during the pre, intra and postoperative periods of surgery (Rothrock, 2018). The intraoperative setting is highly technical, fast-paced, complex and specialised with advanced technology and sophisticated surgical techniques (Spruce, 2015), making the delivery of PCC a challenge. Although there is little nurse-patient contact during the intraoperative period, Meretoja et al. (2004) believe that OR nurses take professional responsibility in providing individualised patient care to achieve the best surgical outcomes. In the OR setting it is not known what PCC looks like or how nurses integrate PCC in practice. This study sought to capture evidence that will enable a better understanding of OR nurses' perspectives of PCC in the intraoperative setting by asking the following research question: What is the meaning of intraoperative PCC from the perspectives of OR nurses in a tertiary hospital?

## METHODS

The aim of this study was to explore OR nurses' perspectives of patient-centred care in the intraoperative setting. To meet the aim of this study, a qualitative descriptive design was used (Sandelowski, 2000, 2010). Based on the principle of naturalistic inquiry (Lincoln & Guba, 1985) this approach was selected as it enabled the capture of detailed descriptions from the participants regarding their experiences and perceptions of PCC.

### Setting

The setting was one tertiary publicly funded hospital in Aotearoa New Zealand.

### Sampling, Participants and recruitments

Registered or enrolled nurses working in adult inpatient ORs were eligible for the study participation. Excluded were nurses who were: 1) orientating to their role; 2) not providing direct patient care; 3) working in outpatient clinics; or 4) for ethical reasons, working in cardiothoracic OR as the interviewer held a senior clinical position in that department. Purposive sampling was used to ensure that representation of OR nursing roles and demographics were representative of the study population. Participants were recruited via poster advertisement and email invitations. Māori nurse participation was specifically sought via an email invitation from a representative of Āhua Tohu Pōkangia Tika Rōpū Perioperative Cultural Equity Committee, although no Māori nurses participated in the study. Ethics approval was granted from the University of Auckland Human Participants Ethics Committee (Ref: AH3100).

### Data collection

Data were collected through individual semi-structured interviews using an interview guide (Table 1), which was piloted to ensure clarity and relevance of the questions before the main data collection phase. Questions moved from

a general inquiry to a specific exploration of the topic. The opening question asked participants to describe routine intraoperative patient care to orient participants specifically to the intraoperative context of care. The second question asked OR nurses to describe intraoperative PCC and subsequent questions explored this topic further. Open-ended and probing questions encouraged participants to elaborate on their answers, enabling an in-depth understanding of participants' perspectives (Creswell & Creswell, 2018). The final question incorporated prompts designed to explore the relevance of generic principles of PCC (Bezold, 2005) to the OR setting. The interviews were conducted face-to-face in a private meeting room within the hospital between August 2021 and November 2021. All interviews were undertaken by the first author (QZ). The interviews lasted between 41 and 69 minutes. Audio-recordings were transcribed by a professional transcriber who signed a confidentiality agreement. During transcription any identifying information was excluded.

### Data analysis

Data were analysed using Clarke and Braun's (2013) six-phase reflexive thematic analysis approach. The six phases are: familiarisation of the data, generation of codes, combining codes into themes, reviewing themes, determining significance of themes, and reporting of findings. NVivo Version 12 software was used to organise and manage the qualitative data. Initial coding of the data was carried out by the lead author and subsequently reviewed by the co-authors. The codes were organised into themes and a consensus approach facilitated agreement on the final themes. Reflexive processes ensured the researchers' understandings and interpretations accurately reflected the participants' perspectives. Lincoln and Guba's (1985) four quality criteria of credibility, dependability, conformability and transferability guided the process of producing trustworthy research.

## RESULTS

Nine operating room registered nurses participated. Participants were predominantly female and ethnically diverse. Ages ranged from 23–70 years. Participants worked across a range of specialities and practice levels. Years of OR experience ranged from under one year to over 10 years. Six nurses had no postgraduate nursing qualifications (Table 2).

Three themes were generated from the analysis: 1) providing holistic care; 2) providing collaborative care; and 3) optimising patient outcomes. Themes and subthemes are shown in Table 3 and are now described alongside illustrative quotes. Participants' names are replaced with pseudonyms to ensure anonymity.

### Providing holistic care

From the perspective of OR nurses, PCC was about providing holistic nursing care that considered patients' physical, psychological, cultural and family needs. Participants

**Table 1. Topic guide for interviews**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Please describe the routine patient care you provide throughout the intraoperative period in your nursing role.</li> <li>• How would you describe patient-centred care in the intraoperative setting?</li> <li>• What do think are the key elements of intraoperative patient-centred care and why?</li> <li>• Which kinds of intraoperative nursing care or nursing activities do you consider to be patient-centred?</li> <li>• To what extent can you apply patient-centred care to patients who are asleep during their surgery?</li> <li>• Have you seen any other opportunities for applying patient-centred care in the operating room?</li> </ul> | <p><i>Prompt:</i> Opportunities for care related to the Picker's Principles of Patient-Centred Care*: 1) respect for patients' values, preferences and expressed needs; 2) coordination and integration of care; 3) information, communication and education; 4) shared decision-making and support for self-care; 5) physical comfort; 6) emotional comfort and alleviation of fear and anxiety; 7) involvement of families and friends; 8) continuity of care and smooth transition across service boundaries.</p> |
| <ul style="list-style-type: none"> <li>• Closing question: Is there anything else you wish to add about what has been discussed today?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

\* Bezold, C. (2005). The future of patient-centered care: Scenarios, visions, and audacious goals. *Journal of Alternative Complementary Medicine*, 11 Suppl 1, S77-84. <https://doi.org/10.1089/acm.2005.11.s-77>

**Table 2. Participant demographics**

| Participant demographics                                                      |                                              | (n=9) |
|-------------------------------------------------------------------------------|----------------------------------------------|-------|
| Age range (years)                                                             | 20 – 29                                      | 5     |
|                                                                               | 30 – 39                                      | 2     |
|                                                                               | 40 – 49                                      | 0     |
|                                                                               | 50 – 59                                      | 0     |
|                                                                               | >60                                          | 2     |
| Sex                                                                           | Male                                         | 1     |
|                                                                               | Female                                       | 8     |
| Ethnicity                                                                     | New Zealand European                         | 3     |
|                                                                               | Pacific                                      | 2     |
|                                                                               | Filipino                                     | 2     |
|                                                                               | Chinese                                      | 1     |
|                                                                               | Indian                                       | 1     |
| OR nursing experience (years)                                                 | < 1                                          | 1     |
|                                                                               | 1 – 5                                        | 3     |
|                                                                               | 6 – 10                                       | 3     |
|                                                                               | >10                                          | 2     |
| Perioperative speciality                                                      | Otorhinolaryngology                          | 3     |
|                                                                               | Vascular, upper gastrointestinal, transplant | 3     |
|                                                                               | Neurosurgery                                 | 2     |
|                                                                               | Gynaecology and obstetrics                   | 1     |
| Level of practice according to Professional Development Recognition Programme | New graduate/Level 1                         | 1     |
|                                                                               | Level 2 competent                            | 2     |
|                                                                               | Level 3 proficient                           | 3     |
|                                                                               | Level 4 expert                               | 2     |
|                                                                               | Clinical nurse specialist                    | 1     |
| Postgraduate nursing qualification                                            | None                                         | 6     |
|                                                                               | Postgraduate certificate                     | 3     |

emphasised the importance of treating patients as individuals rather than just a diagnosis or case. As one nurse described, patient centred care in the OR setting was:

Considering them [patients] as a whole person, realising they are a person and they do have a life, rather than coming in just as another thing off the list. [Daisy]

As such, PCC was about getting to know the patient, including their social life and sense of well-being, and tailoring care to their individual needs. Participants believed that this approach could help develop a therapeutic connection with the patient. Fundamentally, PCC was about individu-

**Table 3. Themes and associated subthemes**

| Themes                          | Subthemes                                                                                                                            |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1. Providing holistic care      | Patient as a unique person<br>Respect<br>Being a patient advocate<br>Physical comfort<br>Psychological support<br>Family involvement |
| 2. Providing collaborative care | Communication<br>Partnership                                                                                                         |
| 3. Optimising patient outcomes  | Efficiency and quality of care<br>Protecting patient safety<br>Continuity of care                                                    |

alising care, which was considered possible even in the confines of a technical OR environment:

The care of the patient really depends on patient to patient; you cannot really standardise that...it's a different style of care for different patients, but it's patient-centred when it comes to patients. [Ivy]

Nurses understood that patients could feel vulnerable and anxious in the intraoperative setting. They recognised that this related to the patient being in an unfamiliar and technical environment coupled with uncertainty about the surrounding procedures undertaken in preparation for the surgery. The nurses were also aware that patients fear of the unknown and loss of autonomy sometimes led to feelings of embarrassment, prompting nurses to respond by providing reassurance. Emma stated:

Patients are going into areas that nobody's ever seen before, so they are very shy – embarrassed, and that's what generates a lot of their anxiety.

Nurses also felt that PCC was about identifying and then respecting patients' cultural and religious preferences. Intraoperatively, this meant following requests to return body parts or tissue, keeping religious items with the patient in the OR, and facilitating karakia or prayer with families. As one nurse explained:

We do now actively encourage, if they want to have a karakia before their loved one goes through, we should accommodate that, and we do.... I think that's patient centred. [Fiona]

Nurses advocated for a holistic approach to care when patients were anaesthetised by reminding surgeons of patients' preferences. Advocacy, as an aspect of PCC, was evident in nurses' description of maintaining patients' dignity by "keeping them covered" where possible during the surgery, not hesitating to speak up to stop unprofessional conversations during surgery and ensuring that body parts or tissue removed during surgery are labelled as "return to patient", even if the patient did not have the opportunity to give instructions about their preferences preoperatively:

We haven't been able to ask if they can have tissue back, so I would keep the option open so that they could choose to at a later date. [Holly]

A holistic perspective, which acknowledges the patient's psychological well-being during a vulnerable time was demonstrated by actions that extended beyond the intra-operative boundaries of care nurses provide. For example, one senior nurse described how at the end of a surgical procedure, she would make time to clean the blood and debris from a trauma patient's skin and wash dried blood from their hair. She felt that as a result, patients would wake up and see themselves clean and normal at the end of the surgery:

We are spending the time washing these people's hair, getting all that dried blood and stuff out of it, tying it up, braiding it, and then sending them out of the process. ...Maybe that is what patient-centred care is about. [Becky]

Actions centred around personalising care, that considered the whole person and not just their surgical procedure were considered by nurses to be essential to patients' holistic wellbeing. This meant adapting nursing interventions to each patient's unique needs. One participant illustrated the importance of correct positioning and providing support with pillows to promote comfort and contribute to a positive surgical experience:

We also give pillows under the knees just to keep the body in the correct posture because it is hard when you try lying down straight without anything supporting your knees. So, we make sure the patient is comfortable. [Ivy]

OR nurses' holistic perspective of PCC in the OR extended to recognising the vital role family could play in providing emotional support for the patient. Nurses were empathetic to patients' requests to have a family member or support person present in the OR, particularly if there was a unique need such as a child wanting a parent to be with them. One participant explained:

That is how I link this patient-centred care; because that patient wanted somebody along with him into the theatre, to come along with him, hold his hand, and let his mum come in with him. [Ivy]

### Providing collaborative care

Operating Room nurses viewed providing collaborative care as a key aspect of PCC. Effective communication among the surgical team and sharing information in a way that encourages patient participation were core components of this theme. This involved creating a sense of connection and value with the patient and actively listening to their concerns. For example, one participant expressed the importance of supporting patients to voice any concerns before their surgery:

Just make them feel like they are heard that they can voice any concerns if they feel they need to. [Grace]

Nurses also recognised that PCC in the OR setting required collaboration between healthcare professionals and across all phases of the patients' perioperative journey

(preoperative, intraoperative and postoperative). For example, a comprehensive preoperative patient assessment helped plan intraoperative care:

The care that I provide and the team provides in the intraoperative setting is highly dependent on what has happened in pre-op because that gives you the opportunity to assess your patient and make a plan. [Fiona]

Keeping the patient informed about the care process was also critical for collaborative care. Nurses explained that providing clear information about what to expect and the activities going on in the OR helps build rapport and provides a sense of safety and security for patients. Moreover, it enables nurses to tailor intraoperative care based on the patient's feedback. One participant explained that collaborative care involves supporting patients by talking them through what would happen in the OR and explaining the different activities being carried out by team members:

I think it's probably things like building rapport, just explaining to them what is going to happen as we do it... trying to kind of talk them through the process, even before they come into theatre, but also as we're doing it in the room. [Anna]

Patient-centred care was also described as involving shared decision-making and giving patients the opportunity to be involved in their care process. The preoperative checklist facilitated this process by ensuring that safety checks were conducted collaboratively and used this time to create a meaningful bond with patients before they underwent surgery, as explained by one participant:

Preoperative patient check-in was not just ticking the boxes on the preoperative checklist. I care about them, because I've asked questions, as opposed to just going down the tick boxes. I make it part of my pre-op, that's part of my patient-centred care, really. I try and get to know – not too much, but just enough so that I can have a connection with them before they go off to sleep. [Fiona]

### Optimising patient outcomes

PCC was deemed the ultimate goal of intraoperative nursing care in the sense that nurses kept patients' interests in mind at all times, aiming to provide the care that would optimise patient outcomes. From nurses' perspectives, care that did not specifically involve patient interactions, such as being time-efficient was regarded as patient-centred because it promoted safe outcomes for the patient:

You are being as efficient as possible so that patients are not under an anaesthetic longer than they need to be. [Emma]

Conversely, nurses described faulty equipment or inadequate OR preparation as not patient-centred as it had the potential to compromise patient safety. As one participant explains:

[The faulty equipment] did not cause any harm to the patient, but at the end of the day, it is not perfect pa-

tient-centred care because we still had them on the table anaesthetised for an extra 10 minutes. [Becky]

Similarly, nurses recognised when patient complications arise during surgery, effective communication and teamwork within the OR team are crucial for optimising patient outcomes:

A patient is bleeding, or something going wrong in the surgery, and if everyone is not attentive, and responding to it at the same time... then it could have an effect on the patient. [Helen]

Similarly, participants agreed that care did not end in the OR, and a comprehensive postoperative handover was required to provide a continuous chain of action to optimise patient care and recovery:

Giving a very detailed handover so that recovery really does have a good picture of what's happened in theatre and a little bit about the patient. [Emma]

## DISCUSSION

This study explored nurses' perspectives on patient-centred care in an intraoperative setting. The findings identified that OR nurses perceived PCC in this setting as providing nursing care using a holistic and collaborative approach aimed at optimising patient outcomes. Despite a prevailing view that OR function predominantly in a technical environment (Bull & FitzGerald, 2006; Smith & Palesy, 2018), nurses who participated in the research articulated multiple ways in which they provided PCC. The interview further offered opportunities for nurses to reflect on their practice through a PCC lens and deepen their understanding of PCC. Our findings support the value of nurses in the OR nursing models of care, highlighting nurses' unique blend of technical and non-technical skills (Vogelsang et al., 2020).

The theme *providing holistic care* demonstrated that OR nurses' practice extends beyond technical tasks. Instead, OR nurses provided care that clearly aligned with broad PCC principles (Gerteis et al., 1993; International Alliance of Patients' Organisation, 2007; Institute of Medicine, 2001; Picker Institute Europe, 2024), including being responsive to individual patient's needs and preferences and supporting collaborative decision-making. Building on this holistic approach, the nurses in this study incorporated aspects of culturally safe care by facilitating patients' cultural practices and preferences, such as preoperative karakia, and advocating for the return of patients' body parts or tissues when patients requested and consented. This is a finding not evident in existing literature exploring PCC in intraoperative settings. While the Perioperative Nurses College (2021) mandates culturally safe practice aligned with Nursing Council of New Zealand guidelines (2011), recent research (Cowles, 2024) highlights the limited effectiveness of current cultural safety training, such as mandatory online modules, emphasising the need for more comprehensive and practical approaches in the unique OR environment.

Cultural safety and advocacy are interconnected in perioperative nursing practice, as both involve protecting pa-

tients' cultural rights, dignity, and autonomy when they are most vulnerable under anaesthesia. The importance of advocacy emerge strongly in our findings, and is consistent with literature from perioperative (Blomberg et al., 2018; Willassen et al., 2014), intraoperative (Abelsson & Nygårdh, 2020; Arakelian et al., 2017; Brodin et al., 2017; Sundqvist et al., 2018) and intensive care settings (Jakimowicz & Perry, 2015). While advocacy is not emphasised in the general PCC definition and principles, its prominence suggests particular importance in contexts where patients are vulnerable due to sedation or anaesthesia. This finding highlights the importance of determining context-specific definitions for PCC.

Our findings, *providing collaborative care*, also highlight the significance of bidirectional communication, particularly before anaesthesia, supporting Shin and Kang's (2019) finding that active listening is a key aspect of developing compassionate interactions. Interestingly, communication was deemed important only before patients were intubated or for those undergoing local or regional anaesthesia, indicating how PCC actions and its measurement may shift in nature throughout patients' surgical journey. The limited window of time available for patient-staff communication in the OR setting, and particularly the brief period before anaesthesia, presents unique challenges for delivering PCC. Current perioperative caring models, where nurses typically meet patients immediately before surgery, limit opportunities for meaningful nurse-patient interaction.

Beyond communication and advocacy, the theme *optimising patient outcomes* revealed that technical aspects of OR nursing, such as surgical counts and equipment management, are perceived as PCC when viewed through the lens of patient safety and improving surgical outcomes. This aligns with literature specific to perioperative settings (Kelvered et al., 2012; Sundqvist et al., 2018; Van Wicklin, 2020) while extending general PCC principles of care coordination and safety (Picker Institute Europe, 2024). In our study, it was clear that nurses always kept the patient's well-being in mind, focusing their attention on the need for coordinating nursing care and collaborating with other team members in ways that ensured a safe and efficient surgery. In particular, OR nurses safeguard patient safety through active participation in the three phases of the Surgical Safety Checklist. However, this current safety tool used in the intraoperative environment lacks explicit patient-centred elements and cultural safety considerations, particularly in relation to Te Tiriti o Waitangi obligations in the Aotearoa New Zealand context (Timing in Study Group, 2021).

Drawing together these various aspects of PCC implementation, our findings highlighted variations in how nurses interpret and implement PCC in the OR setting, suggesting the need for standardised approaches. While previous studies have established the importance of measuring PCC (Santana et al., 2019), our findings indicate a lack of specific metrics for assessing PCC in the intraoperative context in Aotearoa New Zealand. Additionally, the study revealed gaps in current orientation and professional development programmes regarding PCC implementation in

the OR setting, suggesting the need for enhanced educational approaches that integrate all aspects of PCC discussed above.

## Strengths and limitations

Strengths of this study include the novel exploration of perioperative nurses' perspectives on PCC in Aotearoa New Zealand via semi-structured interviews that enabled us to collect rich data. A topic guide incorporating prompts for exploring the relevance of generic PCC principles supported insightful responses from participants. Techniques promoting quality research included peer debriefing among the research team to check interpretations of the data and participant member checking. Limitations are that this study was conducted at a single metropolitan hospital. The perspectives of Māori nurses are absent.

## IMPLICATIONS FOR PRACTICE AND RESEARCH

This research is the first step towards a better understanding of PCC specific to OR settings. This understanding should serve as a foundation for standardising practice and guiding policy development, integrating both the technical and interpersonal aspects of OR nursing care identified in this research. Healthcare organisations should review and update their perioperative care protocols to explicitly incorporate these PCC elements, ensuring comprehensive PCC delivery. To address the variations in PCC implementation identified in our findings, healthcare organisations should develop specific metrics for assessing PCC delivery in the OR. These metrics should encompass both technical competence and patient experience, including measures of cultural safety implementation. Current perioperative caring models could be reviewed to enhance communication opportunities and continuity of care.

Professional education and training programmes require adaptation to support effective PCC implementation in the OR. Organisations should incorporate specific PCC concepts into orientation programmes for new OR nursing staff, moving beyond theoretical understanding to practical application. Competency assessments could serve as evidence for nurses' competency portfolios and contribute to professional development programmes. Given the limitations of current cultural safety training approaches, particularly the reliance on mandatory online modules, healthcare organisations need to consider revising their educational strategies. More interactive and practical learning approaches should be developed to enable nurses to meaningfully engage with cultural safety principles.

There is also a need to investigate which care models best support PCC. Commonly, OR nurses only meet the patient right before the surgery (Blomberg et al., 2014; Rudolfsson et al., 2003, 2007; Van Wicklin, 2020). This gives nurses only a short period of time to build connections with patients. Different staffing or care models, such as allowing nurses to perform pre and postoperative visits with patients, may enhance the provision of PCC for patients undergoing surgical procedures. Exploring Māori perspectives

(staff and patients) on PCC in this setting is another vital avenue for future research.

Existing literature lacks Aotearoa New Zealand-specific patient data on perioperative PCC, despite its importance in patient care experiences. Integrating patients' perspectives is integral to shaping a patient-centric model of care. Once a shared understanding of intraoperative PCC is established, further research should delve into the facilitating and hindering factors of PCC practice in the OR and the challenges nurses encounter in delivering PCC. These insights could inform clinical implementation and organisational strategies to advance individual and collective PCC practices. Importantly, frameworks guiding the operationalisation of PCC increasingly acknowledge that supporting healthcare staff is integral to the provision of PCC (Wasim et al., 2023). Research is required to understand how the OR environment can best support nurses to provide PCC including the barriers and enablers to the multiple aspects of this care.

## CONCLUSION

Operating Room nurses identified multiple ways in which they provided PCC to patients undergoing surgical procedures. Intraoperative PCC is multidimensional, and the importance of each element is different at different

stages of intraoperative settings. OR nurses value the intraoperative concept of PCC and have unique ways of practicing this concept. Nurse-informed PCC in the intraoperative setting is a holistic nursing approach that considers the patient as a whole person with unique needs, providing culturally safe care while empowering patients through collaborative decision-making and effective communication with the multidisciplinary team in the OR. This approach aims to optimise patient outcomes by integrating individualised care with cultural sensitivity, even when patients are under anaesthesia, requiring nurses to act as advocates throughout the surgical process.

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CW is an editor on the Board of Nursing Praxis in Aotearoa New Zealand. Peer review was conducted independently and according to COPE guidelines.

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