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Transition to practice programs for novice perioperative nurses in Australia: Insights into program structure, duration and educational approaches – a mixed-methods study

Abstract

Background: Novice perioperative nurses face unique challenges when transitioning into highly specialised clinical environments. Transition to practice (TTP) programs are designed to support their integration, yet there is limited empirical evidence on the structure and effectiveness of these programs in the perioperative context. This study explores the current TTP programs available to novice perioperative nurses in Australia, with a focus on program content, duration and educational approaches.

Methods: A mixed-methods, multilevel triangulation design with four sequential phases was employed. For the first phase, we conducted a survey with perioperative nurse educators using both qualitative and quantitative components. Constructs measured included characteristics and effectiveness of current TTP programs in Australia.

Results: Data from 50 respondents revealed significant variability in TTP programs across different healthcare services. The length of TTP programs ranged from 1.5 to 24 months, with differences in the amount of facility orientation and supernumerary time. The content taught within these programs also varied. Some programs focused solely on specific nursing roles, others provided a comprehensive overview of perioperative care. Teaching approaches included a mixture of theoretical and experiential learning, with an emphasis on practical skills and mentorship.

Conclusion: This study found wide variation in the structure, duration and content of perioperative TTP programs across Australia. While some variation may reflect organisational needs, the lack of foundational consistency may impact preparation, confidence and support for novice nurses. Implementing national guidelines with clear learning outcomes and assessment strategies could help ensure novice perioperative nurses are adequately equipped for safe and effective practice, while allowing flexibility for local adaptation.

Keywords: transition to practice, perioperative nursing, novice nurses, nurse educators, quality care, improved outcomes.

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Background

Over the past several decades, nursing education has shifted from hospital-based training to tertiary institutions to better equip graduates with critical thinking, evidence-based practice and leadership skills to meet the ever-evolving healthcare needs of patients and communities¹. While this paradigm shift has strengthened the academic preparation of new graduate nurses, concerns remain about the adequacy of clinical experience in specialised nursing fields^{2,3}. New graduates are thus not perceived as 'work ready'.

This perception presents unique challenges in perioperative nursing because of the complex perioperative clinical environment that requires a high level of clinical competency and readiness. The perioperative setting (encompassing pre-operative, intra-operative and post-operative care) requires specialised knowledge and skills that may not be adequately addressed in the current Bachelor of Nursing curricula⁴.

Policymakers, healthcare organisations and educational institutions address these challenges through transition to practice (TTP) programs. The TTP programs facilitate novice nurses' transition into specialised practice areas, including perioperative nursing^{5,6}. Such programs, often referred to globally as 'graduate transition programs', 'nurse residencies' or 'transition support programs' (TSP), are termed TTP for this Australian study.

The Department of Health report, *Educating the nurse of the future*², examined current TTP programs to provide evidence-based insights to inform the development of consistent, high-quality programs for novice perioperative nurses². It identified variability in TTP design, delivery, structure and support, as well as the lack of standardised frameworks². Existing programs often differ significantly in structure, pedagogical approach and support models, making it difficult to ensure quality and consistency in novice nurse preparation². Empirical evidence supporting their design, implementation and outcomes also remains limited^{2,4}.

A critical challenge remains in understanding the effectiveness of TTP programs for novice perioperative nurses. Understanding the current

Table 1: Participant eligibility criteria

| Inclusion | Exclusion |
|---|--|
| <ul style="list-style-type: none">• Employed as a registered nurse in Australia.• Currently employed within a perioperative department in a role that allowed them to provide nursing education, management or support to novice perioperative nurses (referred to in this paper as nurse educator). | <ul style="list-style-type: none">• Employed in countries outside Australia.• Not employed within perioperative nursing.• Employed in a role that did not provide nursing education, management or support to novice perioperative nurses. |

landscape of these programs and the educational approaches used within perioperative nursing is crucial to support the professional development and increase the retention of novice perioperative nurses.

Aim

To address the above challenges, this study explores the current TTP programs available to novice perioperative nurses in Australia, with a focus on program content, duration, assessments and educational approaches, via two fundamental questions:

1. What are the content, methods and educational philosophies used within these programs?
2. What are the current TTP programs available to novice perioperative nurses within an Australian context?

Methods

Research design

This study represents the Phase 1 of a larger research project using a mixed-methods, multilevel triangulation design with four sequential phases (see Supplement 1). Phase 1 served as an exploratory phase to gather pragmatic insights into current perioperative TTP programs. Data were primarily collected through a survey completed by perioperative nurse educators. The lead researcher completed the same survey tool for two perioperative TTP programs identified through publicly available online sources. These data were included to capture additional TTP program variation and enhance contextual understanding of the program characteristics.

Ethics approval

Ethical approval was granted by the Central Queensland University (CQU), Human Ethics Research Committee (approval number 0000024139) prior to the commencement of data collection.

Setting, sample size and participant recruitment

This study was conducted by surveying perioperative nurse educators across Australia. A target sample size of 28 nurse educators was determined to achieve 95 per cent confidence level with a five per cent margin of error. Participants were screened according to eligibility requirements (see Table 1), ensuring alignment with the research focus of this study.

In this study, the term 'nurse educator' was defined as any nurse employed within a perioperative department whose role involved providing education, management or direct support to novice perioperative nurses. This definition acknowledges that perioperative nurse educators may engage in a range of activities across the transition period.

Participant recruitment was achieved through social media posts (Facebook, LinkedIn, X and Australian College of Perioperative Nurses (ACORN)), snowballing and a conference. The two TTP programs examined by the lead researcher were purposefully selected due to their public availability via the internet.

Data collection

A survey instrument (see supplement) was developed by the research team based on the findings of a scoping literature review⁴. The survey was reviewed and refined through internal and external

processes to establish face and content validity prior to dissemination. It included 20 questions. Ten questions were open-ended and ten were dichotomous or closed-ended. The questions included demographics, health service orientation, TTP program (duration, content, teaching strategies), novice perioperative nurse supernumerary time, preceptorship/mentorship, assessments, perceived TTP program effectiveness and potential barriers to novice nurses.

The lead researcher also completed the survey instrument for the two online perioperative TTP programs. These were only analysed for program content, structure and design. This approach was taken to extend the breadth of analysis and capture documented models of practice. These entries were incorporated into the overall dataset for mapping and synthesis of program characteristics, as the survey focused primarily on collecting data on the descriptive components of TTP programs.

Data analysis

Both quantitative and qualitative data were analysed. Quantitative data were analysed using Qualtrics Stats iQ and IBM SPSS v20⁷⁸. Demographic data, TTP program duration, orientation time and supernumerary time were analysed using frequencies and ranges.

Qualitative data were analysed using an inductive content analysis approach. This process involved generating, reviewing and refining categories for accurate representation of the data^{9,10}. Data collected were systematically coded and mapped by categorising responses into key domains of TTP programs, such as duration, content, teaching approaches, mentorship and assessment.

Validity and reliability/rigour

Quantitative data were exported from Qualtrics into SPSS for cleaning and checking for missing values and outliers before descriptive analysis. Qualitative data were inductively coded, categorised and mapped by the lead researcher. Three additional researchers undertook verification and consensus processes to ensure rigour. Regular team meetings facilitated discussions on data interpretation and theme finalisation, minimising bias and maintaining

Table 2: Number of respondents by state/territory and health sector (N = 50)

| State/territory | Health sector | | Total |
|------------------------------|---------------|---------|-------|
| | Public | Private | |
| Queensland | 13 | 2 | 15 |
| New South Wales | 11 | 2 | 13 |
| Victoria | 7 | 4 | 11 |
| South Australia | 3 | 1 | 4 |
| Tasmania | 2 | 0 | 2 |
| Northern Territory | 1 | 1 | 2 |
| Western Australia | 1 | 2 | 3 |
| Australian Capital Territory | 0 | 0 | 0 |
| Total | 38 | 12 | 50 |

consistency. The research team comprised four experienced registered nurses from the tertiary education and research sectors who critically engaged with the data while mitigating assumptions.

Results

We used a weaving approach to data integration¹¹, by presenting the quantitative data alongside the qualitative data, to provide a more comprehensive understanding of each characteristic.

A total of 50 responses were received. Perioperative nurse educators provided 48 responses. Two additional responses were entered by the lead researcher based on the two publicly available online TTP programs.

The distribution of responses included both the public (n = 38) and the private (n = 12) health sectors. All states

and territories of Australia, except the Australian Capital Territory, were represented (see Table 2).

Educational qualifications of perioperative nurse educators were gathered from survey responses to assess credentials for novice perioperative nurse education (see Table 3). Most perioperative nurse educators held postgraduate qualifications (master's, doctorate or graduate certificate; n = 44) beyond a bachelor's degree (n = 4). No minimum educational requirement exists for perioperative educator roles.

Mapping and synthesis of TTP program characteristics

Data mapping and synthesis revealed five key characteristics of TTP programs: duration, content taught, teaching approaches, support approaches (mentorship/preceptorship) and assessments (see Table 4). There was

Table 3: Respondents by level of education (N = 48)

| Level of education | Frequency (%) |
|--------------------------------------|---------------|
| bachelor | 4 (8) |
| Certificate IV Training & Assessment | 6 (13) |
| graduate certificate | 11 (23) |
| graduate diploma | 16 (33) |
| master's or doctorate (PhD) | 10 (21) |
| other degree in education | 1 (2) |

Table 4: Synthesis of TTP program characteristics

| | Content taught | | Teaching and support approaches | | Assessments |
|---|---|---|---|---|---|
| | Theoretical content | Practical content | Teaching approaches | Support approaches | |
| Common elements, found in all TTP programs | <ul style="list-style-type: none"> orientation to perioperative nursing roles within operating theatres occupational health and safety policies and procedures documentation and electronic medical records infection control stream or subspecialisation (i.e. instrument/circulation, anaesthesia / recovery, endoscopy) | <ul style="list-style-type: none"> aseptic technique surgical handwash, scrubbing, gowning and gloving instrumentation equipment emergency procedures various surgical procedures and surgical specialities | <ul style="list-style-type: none"> workbooks webinars internal learning modules presentations videos online theory and self-directed learning packages workshops | <ul style="list-style-type: none"> preceptor/mentor study days (structured and unstructured) educator-led and group discussions simulations demonstrations | <ul style="list-style-type: none"> clinical practice assessment essay case study reflection |
| Variable elements, not found in all TTP programs | <ul style="list-style-type: none"> alignment with standards and guidelines pressure injury prevention pain management sterilisation medication management care of specific populations (e.g. pregnant patients, paediatrics, bariatric patients, Aboriginal and/or Torres Strait Islander peoples etc.) | <ul style="list-style-type: none"> catheterisation manual handling patient deterioration patient positioning | <ul style="list-style-type: none"> external learning modules skills checklists | <ul style="list-style-type: none"> reflective activities | <ul style="list-style-type: none"> formative workbooks quiz or exam feedback from peers verbal discussion presentation |

extensive variability across the programs. Qualitative analysis identified workforce issues as the central theme influencing program design, operationalisation and experiences.

Program duration

Program duration was one of the key characteristics in perioperative TTP programs. Key duration components include total program time, facility orientation and supernumerary time for novice nurses (see Table 5).

The program duration varied across both sectors. Overall, the program duration ranged from 1.5 to 24 months (mean = 11.56, variance = 22.50 months). The mean duration of the programs

was longer in the private health sector (12.75 ± 5.74 months) compared to the public health sector (11.19 ± 3.72 months). Facility orientation duration ranged from 0.5 to 10 days (variance = 9.5 days). Supernumerary time shows a greater range, spanning from 1 to 52 weeks (variance = 51 weeks).

Qualitative findings related to duration revealed that nine respondents perceived a shortage of time in the TTP program. Two responses are quoted below.

12 months may not be enough time!

RN 1

There isn't enough time to teach them ...

RN 9

Content taught and teaching approaches

Out of the 50 responses, 35 responses were provided to the qualitative questions about the content taught and teaching approaches (see Table 4). No TTP program in our study was directly informed by specific learning outcomes. Integration of the TTP program with professional standards was noted (n = 5). None of the respondents could articulate the educational philosophies that underpinned their TTP program.

For program delivery, 28 (56%) of the TTP programs were delivered face-to-face. Only one (2%) was delivered solely online and 19 (38%) were offered as blended programs. Two (4%) respondents did

Table 5: TTP program duration (N = 50)

| | | Frequency |
|----------------------------------|--------------------------|-----------|
| Duration of TTP program | < 6 months | 1 |
| | 6–12 months | 41 |
| | 13–24 months | 5 |
| | variable (1.5–12 months) | 1 |
| | no response | 2 |
| Duration of facility orientation | no orientation | 7 |
| | < 1 day | 1 |
| | 1–2 days | 19 |
| | 3–5 days | 14 |
| | > 5 days | 6 |
| | no response | 3 |
| Duration of supernumerary time | no supernumerary time | 1 |
| | < 2 weeks | 3 |
| | 2–6 weeks | 35 |
| | 7–10 weeks | 1 |
| | > 10 weeks | 5 |
| | no response | 5 |

not provide the delivery mode. Fourteen (28%) of the TTP programs incorporated technology-enhanced learning (online modules, videos, digital resources) into their teaching approaches.

Theoretical learning as a teaching approach, focused on acquiring knowledge and conceptual understanding, featured in nearly all (97%) of the TTP programs. Experiential learning (the process of learning by doing) occurred in 28 (56%) of the TTP programs. Common forms of experiential learning included skills stations (n = 24) and simulations (n = 13).

Two TTP programs also reported providing a perioperative introductory program (PIP) to novice nurses. The PIP is an intensive three-day training, using skills stations and simulations with perioperative nursing experts. Twelve

respondents highlighted the constructive value of experiential learning. One such response stated:

... novices can practice and ask questions in a safe learning environment ...

RN 42

Support approaches, mentorship and preceptorship

Mentorship and preceptorship were included in 36 (72%) of the TTP programs, with six programs identifying them as the most effective components, fostering confidence and competence in novice nurses navigating the perioperative environment. Respondents emphasised the importance of clear and competent preceptors, with one noting that:

... having two clear preceptors and ensuring that the experienced clinicians are confident and competent to 'step back' and allow the novice to learn and grow ...

RN 11

Barriers to mentorship and preceptorship included inconsistent pairing of novice nurses with preceptors (n = 5) and the reluctance among experienced registered nurses to take on mentorship roles (n = 3). In one TTP program (2%), preceptors were used to back-fill the educator due to staffing shortages.

Assessments

Both formative and summative assessments were a common component in TTP programs (n = 32, 64%) to evaluate a novice nurse's knowledge, understanding, skills and competency. Five (10%) respondents indicated that their TTP program did not assess novice nurses, highlighting a departure from structured assessment schedules.

Based on the results, the assessments varied between TTP programs, with no two TTP programs using the same assessment modalities.

The most common assessment modality was the practical assessment, reported to be in use by 26 (52%) of respondents. Skills checklists and/or competency-based checklist assessments were present in 22 (44%) of respondents, preceptor/educator sign-off by 5 (10%) and

simulation-based assessments by one (2%). Written assessments were present in 12 (24%) programs and involved essays, case studies, reflections and formative workbook activities. Seven (14%) of the programs incorporated quizzes or exams to assess novice nurses' knowledge. Oral presentations were also used in four (8%) of the programs.

Workforce issues – challenges and enablers

Qualitative content analysis identified workforce issues as a central theme influencing the design, implementation and effectiveness of TTP programs for novice perioperative nurses. Workforce-related factors, including organisational support, positive workplace culture, adequate resourcing, teaching culture and prior exposure to perioperative nursing, were identified as subthemes, critical factors in shaping novice nurses' experiences and development. Respondents emphasised that a supportive and well-structured environment is vital to ensure that:

... the staff [novice nurse] are well rounded and independent by the end of their program and can be employed without the need for initial further training.

RN 17

Several challenges were identified in the responses, such as inadequate planning, rostering difficulties and reluctance among clinical staff to engage in teaching roles. According to the respondents, these issues compromised the program's consistency and quality.

Despite these challenges, the theme also identified valuable enablers. These include collegial support and structured guidance. These enablers can positively influence the learning and integration of novice nurses into the perioperative environment.

Subtheme – organisational support

The importance of organisational and managerial support for successful TTP program implementation was identified as a subtheme in 15 (30%) responses. Two respondents expressed that while their TTP programs appear well-planned, the execution does not mirror the planning. Another respondent highlighted

insufficient funding as a major obstacle to implementing an effective TTP program.

Nine (18%) respondents stated rostering and shift patterns are significant challenges experienced by both nurse educators and novice nurses in the perioperative setting, resulting in novice nurses being unable to work with their allocated preceptor, lack of education time and inconsistency in the surgical subspecialty in which the perioperative novice nurses work.

Novice nurses were also commonly used to fill staffing gaps, with one respondent adding, novice nurses are:

... on-call within ten weeks ... dealing with life-threatening situations on their own ...

RN 4

Another respondent also commented: ... as a NUM [nurse unit manager] ... this is both impractical and unsafe ...

RN 12

Subtheme – positive workforce culture

The subtheme of a positive workforce culture emerged as an enabler in the effective implementation of perioperative TTP programs, being identified by 27 (54%) of the respondents. The respondents recognise the importance of a supportive and collegial environment, where enablement, willingness to teach and consistent compassion form the foundation of successful novice nurse integration into specialised perioperative teams.

Respondents also emphasised the collective effort required, with one noting:

... ongoing support from a team effort between senior clinical periop [sic] nurses, education team and management ...

RN 50

Additionally, nurturing colleagues, engaged preceptors and a strong sense of team effort were identified by 11 (22%) of the respondents as key enablers of effective TTP programs.

Subtheme – resourcing

Resourcing was identified by 18 (36%) of the respondents as a key factor influencing the effectiveness of perioperative TTP programs. This

subtheme underscores the necessity of adequate educational resources. Key stakeholders, including managers, educators and preceptors, also need to provide consistent and sustained support. The effectiveness of the TTP program in the perioperative setting is closely tied to the availability of these resources, with one respondent noting that:

The TSP does require adequate education resourcing and stakeholder support to be most effective ...

RN 14

Among the 18 respondents who discussed resourcing, 15 (30%) identified a lack of resources as a barrier to the effective implementation of TTP programs.

Subtheme – teaching culture

Six (12%) of the respondents highlighted workplace culture as a significant challenge to educating novice nurses. Five (10%) of the respondents reported the reluctance among nursing staff to teach and issues stemming from nursing hierarchy as key obstacles. Two (4%) of the respondents noted that anaesthetists and surgeons were sometimes resistant to engage novice and new graduate nurses. One respondent termed it as:

... unwillingness to facilitate learning opportunities ...

RN 20

Subtheme – prior exposure to perioperative nursing

Four (8%) of the respondents identified the lack of exposure to perioperative nursing as an undergraduate nursing student poses a challenge for TTP programs. Respondents noted that minimal undergraduate exposure to perioperative nursing theory led to novice nurses commencing specialised training without foundation knowledge. One respondent described this situation as:

... start from scratch ...

RN 1

Another respondent elaborated on the impact of this challenge, stating:

Perioperative programs are more like another year at university whilst working full time. It is a very stressful year for novice nurses.

RN 15

Discussion

Our study explored Australian TTP programs in the perioperative setting and identified five key characteristics: duration, content taught, teaching approaches, support approaches (mentorship/preceptorship) and assessments.

Program duration

Considerable variation in the duration and content of TTP programs for novice perioperative nurses highlights a critical issue in the standardisation of nursing education. Variation is not inherently negative; however, the concern lies in whether all essential skills and knowledge for safe perioperative practice are adequately addressed. Internationally, similar challenges have been reported, with studies in the United States and Canada highlighting variability in Nurse Residency and Graduate Nurse Programs and calling for greater consistency in program design^{5,12}.

Our study found that the length of TTP programs ranged from as little as 1.5 months to 24 months, with significant variability in the time allocated to facility orientation and supernumerary experiences. For example, orientation durations ranged from half a day to ten days, and supernumerary periods varied from one week up to an entire year. This range suggests some novice nurses received extended periods of hands-on training and orientation, others were moved more quickly into independent practice, potentially without sufficient preparation to meet the demands of the perioperative environment.

Such variability could significantly impact the readiness and confidence of novice nurses as they enter specialised practice areas, such as, perioperative nursing². Longer and more immersive training periods may be beneficial for developing clinical competence, knowledge retention and confidence, particularly for those with less prior exposure, whereas shorter programs may suffice for individuals with stronger foundational skills. In comparison, shorter and less comprehensive TTP programs may not provide adequate time for novice nurses to acclimate to the complex perioperative setting, potentially compromising patient care and safety. Implementing longer TTP programs, however, requires adequate

resourcing, including sufficient staffing, funding and educational support, which may not be a viable option in some healthcare settings^{13,14}.

Three literature reviews^{4,12,15} reported that the length of TTP programs is widely varied. The variability in TTP program length has potential consequences for novice nurses and the broader healthcare system. Inadequately prepared nurses may experience higher levels of stress and burnout, which could lead to increased turnover rates and gaps in the quality of care delivered^{16,17}, therefore, potentially, compromising patient safety. The length and comprehensiveness of TTP programs are not just about skill development but have far-reaching implications for healthcare outcomes, team dynamics, patient safety and the sustainability of the nursing workforce in specialised settings. Structured TTP programs have been shown to improve retention rates and reduce recruitment and training costs in the long run, making them a financially sustainable investment for healthcare organisations^{13,14}.

Program content

The variability in the content of TTP programs further complicates transition to practice. As highlighted in the results, some TTP programs focus solely on specific roles, such as the circulating or scrub nurse role. In comparison, others offer a broader education encompassing all perioperative roles, including anaesthesia and recovery. This inconsistency may result in disproportionate preparation where some nurses are well-versed in multiple aspects of perioperative care, while others might only be familiar with a narrow set of responsibilities⁴. Such variation is reasonable if it reflects differing role expectations or local service needs; however, problems arise when essential perioperative competencies are omitted, as this can impact team functionality, individual performance and, ultimately, patient outcomes.

Teaching approaches

Ensuring a minimum level of education for nurse educators is essential for maintaining consistency in educational quality and aligning with international best practices in nursing education¹⁸. Additionally, the lack of a standardised

approach to the content taught and the qualifications of educators, where some hold graduate-level degrees and others have lesser qualifications, further indicates the disparity in educational standards. The majority of respondents (32%) held a graduate diploma, and a significant portion (20%) held master's degrees or doctorates, suggesting a high level of expertise among some educators.

However, the absence of a nationally agreed minimum educational standard for these roles may contribute to variation in training approaches and outcomes, as differences in educators' qualifications could influence the depth and breadth of knowledge delivered. While the literature suggests alignment between higher educational preparation and teaching quality, further research is needed to confirm the extent of this relationship in the perioperative context²¹⁹.

Integrating adult learning principles, such as experiential learning and technology-enhanced learning^{20,21}, into TTP programs appears beneficial yet is inconsistently applied across programs. Adult learners benefit from practical, relevant and self-directed learning experiences that integrate new knowledge with existing experiences^{21,22}.

The use of experiential learning aligns with the broader objectives of TTP programs to bridge the gap between theory and practice. Programs that effectively apply these principles can enhance learner engagement and knowledge retention, which is crucial for preparing nurses for the environment of perioperative care²². A more consistent application of these principles across all TTP programs could standardise the quality of education and better prepare nurses for the transition from theoretical learning to practical application in clinical settings.

Support approaches

Nearly three quarters of the programs in our study included mentorship and preceptorship, and some respondents identified such support as the most effective components. Daily contact with mentors and continuous feedback can foster confidence and competence in novice nurses navigating the perioperative environment.

The consistency of support within perioperative teams and the opportunity for novice nurses to experience various nursing roles within perioperative environments were also highlighted by respondents as key to cultivating a deeper understanding and longer-term collegiality. Such an environment supports novice nurses' immediate educational needs and contributes to the sustained development of a cohesive and knowledgeable workforce. This commitment to a positive workforce culture shows a broader organisational philosophy that values ongoing professional development, thereby ensuring perioperative nursing staff's future readiness and competency.

Assessment

Assessments within TTP programs are essential for evaluating novice nurses' knowledge, skills and competencies throughout their transition into specialised practice. These evaluations provide critical feedback that allows learners to identify areas for improvement and refine their abilities in alignment with industry standards²³.

By incorporating a variety of assessment methods, including practical evaluations, written assignments and oral presentations, TTP programs ensure novice nurses are equipped to meet the demands of the perioperative environment^{24,25}. Establishing structured and consistent assessment practices across programs can enhance the overall effectiveness of TTP programs and support the preparation of competent and confident nurses.

Recommendations

The findings from this study reveal substantial variability in the duration, content, delivery methods, and educator qualifications within TTP programs for novice perioperative nurses.

While some variation reflects adaptation to local contexts, inconsistencies in program structure, content coverage and assessment can lead to unequal preparation which, in turn, may lead to inadequate confidence, competence and readiness for perioperative practice. Coupled with gaps in foundational perioperative exposure, resourcing challenges and inconsistent education

levels of perioperative nurse educators, these findings support the need for more consistent, evidence-based TTP program design across Australia.

Limitations

This study acknowledges several limitations. The scope of the research was restricted to an Australian context, which may limit the applicability of the findings to other geographical locations. Although efforts were made to ensure a diverse sample, the dominance of responses from the public health sector may not fully represent private organisations. In addition, the sample size was limited due to the small population of perioperative nurse educators.

Another limitation is the potential for multiple respondents from the same health service or hospital. While no two responses were identical, it is not possible to confirm that each survey represented a distinct TTP program. This may have skewed the results if several participants described the same program, although the breadth of responses across states and sectors helps mitigate this risk. Future studies could address this issue by tracking respondents more closely and pairing responses with specific health service area metrics.

A further limitation is the inclusion of two researcher-completed surveys, which may raise concerns about potential bias. This risk was minimised as this phase of the study was exploratory and the survey primarily examined tangible components of TTP programs, rather than subjective interpretation. In addition, data were synthesised descriptively rather than through interpretive thematic analysis to reduce the likelihood of researcher influence.

Conclusion

This study highlights the significant variability in the TTP programs for novice perioperative nurses in Australia. The disparity in program duration, content and teaching approaches presents challenges to the standardisation of education and training. The findings highlight the need for national guidelines to ensure consistent, high-quality preparation for novice nurses in perioperative settings.

By addressing these variations and incorporating standard learning outcomes and assessment strategies, healthcare organisations can better equip novice nurses with the skills and confidence necessary for safe and effective practice, thus improving patient care and workforce sustainability.

By exploring the current landscape of TTP programs and educational approaches within perioperative nursing, this research has the potential to inform policy and practice initiatives aimed at enhancing the preparedness and competency of novice perioperative nurses. Ultimately, this can improve patient outcomes and the quality of care within perioperative settings. As an important exploratory phase of a broader research program, this study offers the foundational overview of perioperative TTP programs and will inform more targeted evaluation and analysis in subsequent phases.

Conflict of interest and funding statement

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

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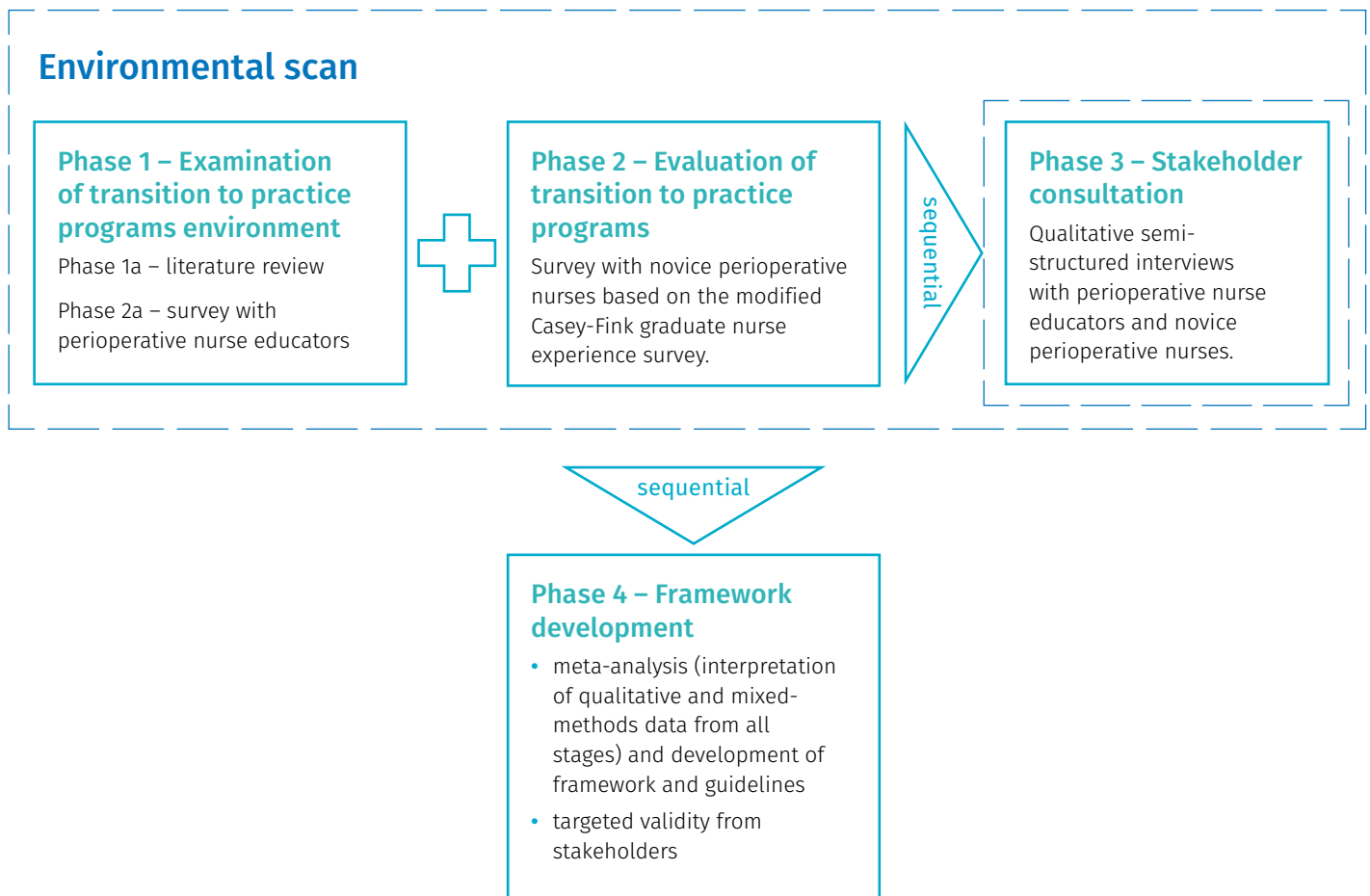
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Transition to practice programs for novice perioperative nurses in Australia:

Insights into program structure, duration and educational approaches – a mixed-methods study

Supplement A: Research design overview



Supplement B: Survey instrument

Screening and demographics

1 Please complete the following reCAPTCHA prior to proceeding.

2 What state are you currently employed in?

- | | | |
|--|---|---|
| <input type="checkbox"/> Queensland | <input type="checkbox"/> Tasmania | <input type="checkbox"/> Western Australia |
| <input type="checkbox"/> New South Wales | <input type="checkbox"/> South Australia | <input type="checkbox"/> Australian Capital Territory |
| <input type="checkbox"/> Victoria | <input type="checkbox"/> Northern Territory | <input type="checkbox"/> overseas |

[Skip to end of survey if 'What state are you currently employed in?' = overseas]

3 Are you employed within the public or private health sector?

- public private

4 Are you currently employed in a perioperative environment where you are involved in educating, managing or supporting novice nurses in the perioperative environment?

- yes no

[Skip to end of survey if 'Are you currently employed in a perioperative environment where you are ... = no]

5 What is the highest level of nursing education you currently hold?

- | | | |
|---|---|---|
| <input type="checkbox"/> degree | <input type="checkbox"/> Certificate IV Training and Assessment | <input type="checkbox"/> master's degree or doctorate (PhD) |
| <input type="checkbox"/> graduate certificate | <input type="checkbox"/> graduate diploma | <input type="checkbox"/> other degree in education |

Length questions

6 What is the duration of your organisations' perioperative transition program?

7 Does your organisation provide an orientation to the facility (health service) prior to a specific perioperative transition program?

- yes no

8 If 'yes': What is the duration of the facility orientation?

9 Is the novice nurse provided with supernumerary time as part of the perioperative transition program?

- yes no

10 If novice nurses are provided supernumerary time, how long is it?

Modality

11 How is the transition program being provided?

- in-person online blended (mix of
in-person and online)

12 If the transition program is being provided wholly or partially online: Within your organisations' program, how is learning and teaching delivered?

- Lessons and content are provided in real-time by educators to students
(e.g. Zoom, BlackBoard, Microsoft Teams etc.) (synchronous)
- Students can access video recordings and lessons at different times to suit them (asynchronous)
- Blended – a mix of real-time lessons and pre-recorded recordings

Pedagogy and assessments

13 Is the novice nurse provided with a preceptor/mentor as part of the perioperative transition program?

(A preceptor is an experienced nurse who orients the novice nurse to the work environment, explains processes and procedures, demonstrates skills and helps the nurse learn them. The preceptor also serves as a role model, teacher and guide).

- yes no

14 What content is taught within the transition program?

(For example: aseptic non-touch technique, infection control, donning/doffing, surgical theory, perioperative emergencies etc.)

15 What teaching approaches are used within the transition program?

(For example: lectures, pre-recorded videos, workbooks, group discussion, presentations, simulation, skills station, demonstrations etc.)

16 Are novice nurses assessed as part of the transition program?

- yes no

17 If 'yes': How are novice nurses assessed?

(For example: exams, quizzes, clinical skills/competency assessment, simulations, scenario assessment, presentation/oral test, evaluation by preceptor/educator etc.)

Barriers

18 What elements of the transition program do you believe are MOST effective at educating novice perioperative nurses?

19 What elements of the transition program do you believe are LEAST effective at educating novice perioperative nurses?

20 What are the potential barriers and challenges to novice nurses undertaking the transition program?

Miscellaneous

21 Are there any other key features of your organisation's perioperative transition program that you would like to discuss?

Stage 3 follow up

22 Would you like to be contacted to participate in Interviews that stem from the results of this survey?

(If you select 'yes', you will be taken to a separate non-linked survey to keep your personal information confidential and separate from the results of this survey. Please note that these interviews may not be held for six to twelve months post-survey.)

yes

no