



EMPIRICAL RESEARCH QUALITATIVE **OPEN ACCESS**

Exploring the Development of Early Career Nurses: Insights 4 Years After Graduation

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ABSTRACT

Aim: To explore how Early Career Nurses perceive their preparedness for nursing practice, the teaching and learning experiences, and the role of professional experience placements on their professional development.

Design: A qualitative study using a hermeneutic phenomenological approach.

Method: The study involved 25 Early Career Nurses who participated in follow-up interviews 4 years post-graduation in Australia between 2022 and 2024. Data were collected through semi-structured interviews and analysed using Thematic Analysis.

Results: Three key themes emerged: gaps in preparedness, the power of being embedded and too many balls to juggle. Participants indicated a mixed sense of preparedness with significant gaps in clinical skills. They emphasised the critical role of professional experience placements and mentorship to bridge the gap between theoretical knowledge and practical application. Placements and mentorship opportunities were considered essential to develop confidence and competence for effective nursing practice.

Conclusion: The study highlights the necessity for nursing curricula to address significant gaps in clinical skills, particularly in surgical and emergency nursing. By incorporating more simulation-based learning, interprofessional education and robust mentorship programmes, nursing education can better prepare graduates for the realities of clinical practice. These enhancements will help ease the transition from academic training to clinical practice, reducing reality shock and fostering a more confident, competent and resilient nursing workforce.

Implications for the Profession: Nursing education must integrate more simulation-based learning and interprofessional education opportunities, which are crucial for bridging the gap between theoretical knowledge and practical application, ensuring that graduates are adequately prepared for the demands of clinical practice. Additionally, professional experience placements and mentorship should be prioritised to develop the confidence and competence for effective nursing practice.

Reporting Method: This study adheres to the Consolidated criteria for reporting qualitative research guidelines.

Patient or Public Contribution: No Patient or Public Contribution.

Summary

- What does this paper contribute to the wider global clinical community?
 - The study provides a framework to improve the preparedness of nursing graduates, ultimately leading to better patient care and outcomes.
 - Comprehensive strategies are needed to ensure a bridging of the theory-practice gap through enhanced hands-on clinical experiences.
 - Greater integration of practical experiences with academic learning promotes the development of a more competent and confident nursing workforce.

1 | Introduction

The nursing workforce is experiencing a worldwide shortfall that is arguably one of the greatest public health issues to confront modern healthcare (Speroni 2024; Tamata and Mohammadnezhad 2023). The Early Career Nurse (ECN) is a critical element in the sustainability of the nursing workforce. Without the funnelling of newly graduated nurses into the healthcare system each year, the system's capacity to meet healthcare demands would be severely compromised (Mathieu et al. 2022; Tamata and Mohammadnezhad 2023). The first 5 years of nursing practice have been considered the most crucial for developing competence, acquiring essential skills, and forming a professional identity. This ECN period significantly impacts job satisfaction and career longevity, making it a pivotal time for nurses to transition from beginners to confident practitioners (Mills et al. 2016).

Recent research highlights the increasing focus on skills-based hiring and the importance of practical experience for new graduates (Sigelman et al. 2024). Employers are looking for key skills such as problem-solving, teamwork and communication, which are essential for career readiness (Opoku et al. 2021). Despite comprehensive academic training, ECNs report feeling unprepared for the realities of clinical practice, particularly in high-stress environments and the emotional demands of nursing. This disparity highlights the need for a deeper understanding of how educational experiences shape professional readiness and development among nursing students (Wang et al. 2024).

Recent longitudinal research has explored the transition experiences of new healthcare graduates, identifying critical factors such as emotional resilience, mentorship and professional identity formation during the early career period (Al-Yaseen et al. 2024; Chaou et al. 2021; Hookmani et al. 2021; Zhang et al. 2024). These studies emphasise the importance of support systems and structured mentorship programmes in enhancing professional growth and competence. Further, the research has revealed that preparedness for practice is associated with professional identity and teamwork experience, with preparedness generally increasing over time (Al-Yaseen et al. 2024; Chaou et al. 2021). Structured mentorship programmes, integrated into nursing education and early career stages, can profoundly enhance the professional growth, competence and retention of new nurses (Munro and Hope 2022). Additionally, others have

investigated the impact of college experiences on job satisfaction and career outcomes to provide insights into how educational experiences shape long-term professional development (Majewski 2018).

However, the onset of the COVID-19 pandemic introduced additional complexities to this transition experience among ECNs, further complicating the shift from education to practice. The pandemic highlighted existing flaws in the nursing education system, such as the reliance on in-person clinical experiences and the lack of flexibility in educational delivery methods (Chan et al. 2021). The sudden shift to online learning, the increased stress on healthcare systems, and the emotional toll on healthcare workers and ECNs have all impacted the preparedness of nursing graduates (Chan et al. 2021). These challenges highlighted the need for improved alignment between academic training and clinical practice and the necessity for more resilient and adaptable educational frameworks. This disparity creates difficulties in delivering high-quality patient care and maintaining professional well-being, emphasising the need for better integration of practical experience with academic learning (Munro and Hope 2022).

Professional experience placements are a critical component of nursing education. For example, all Australian accredited Baccalaureate programmes require nursing students to undertake a minimum of 800 h of mandatory professional experience placement throughout their three-year programme (Terry et al. 2022). These placements provide students with hands-on experience in real healthcare settings, allowing them to apply their knowledge and skills under the supervision of experienced practitioners (Nakić et al. 2023). The quality and duration of these placements can significantly impact the preparedness of ECNs for independent practice. Positive placement experiences, characterised by supportive mentorship and diverse learning opportunities, can boost the confidence and competence of ECNs (Marriott et al. 2024), mitigating the impact of transition shock. Conversely, negative experiences, such as lack of support or exposure to high-stress environments without adequate preparation, can intensify feelings of unpreparedness and exacerbate transition challenges as students enter the workforce (Stevens et al. 2023).

The research conducted in this area suggests that managing the transition shock of ECNs can yield significant benefits (Zhang et al. 2024). However, the experiences of ECNs in their first year post-graduation differ vastly from those in the later years of the ECN period (Mills et al. 2016). Therefore, it is crucial to understand the nuanced experiences of ECNs throughout this period. Much of the current research focuses on the first 12 months of the ECN transition period. Consequently, the perspectives of ECNs in the latter part of their transition—those who have been immersed in the nursing profession and engaged in clinical practice for several years post-graduation—remain under-researched. Their insights and experiences, however, may provide a unique and valuable context for understanding the long-term evolution of their professional development and adaptation within the nursing culture. As such, this study aims to gain insight into the experiences of ECNs in their fourth year of transition. By closely examining these experiences, it is anticipated that a greater understanding of the phenomena of being

an ECN at this stage of transition and career may inform better ways to support nurses through these formative stages of their development.

2 | Methods

The qualitative study was conducted using a hermeneutic phenomenological approach. The interpretive approach enables a deep understanding of lived experiences by exploring a phenomenon from an individual's perspective. Informed by Gadamer's (2013) philosophy, the study examined ECNs' experiences 4 years post-baccalaureate training. While Gadamer's philosophy does not prescribe specific research methods, the process of engaging in interviews aligns with his emphasis on dialogue and understanding. By conducting interviews, a cycle of understanding is initiated through dialogue with the participants and reflects that understanding is achieved through a conversational process, where questions and answers lead to deeper insights. This hermeneutic phenomenological approach recognises that language is the condition of our being in the world and in the same language that can be shared by interlocutors in understanding the experience of phenomena. Gadamer (2013) suggested that all understanding of others occurs in dialogue that follows the pattern of question and answer. The deep and nuanced dialogical approach provided the opportunity through which the interpretation of the core structures of participants' lived experiences was uncovered (Gadamer 2013).

This study is part of a larger 10-year longitudinal research project exploring nursing students' academic performance, career decision-making and longevity within the workforce. Annual surveys examine nursing student academic performance, resilience, self-efficacy and practice intentions, while a biannual survey and interviews are then undertaken with nursing students from the time of graduation. The present paper reports on specific findings from this larger project, allowing for a detailed exploration of different facets of the overarching study. Reporting methods followed the COREQ guidelines (Tong et al. 2007).

2.1 | Setting

The study was conducted across Victoria, Australia, and participants were selected through purposive sampling by targeting ECNs who had graduated within the last 4 years. Invitations to participate were sent to ECNs via email as part of the longitudinal study.

2.2 | Participants

Participants included former nursing students who had completed a three-year undergraduate nursing degree ($n=37$) and who had participated in an initial study during their final undergraduate year (Terry and Peck 2020; Terry et al. 2020). At that time, they had expressed willingness to be contacted via email 48 months post-graduation for an interview, which took place between 2022 and 2024 (Table 1). Of those initially interested,

TABLE 1 | Interview of ECNs 4 years following graduation.

Year of interview	2022	2023	2024	Total
Number of ECNs	12	7	6	25

25 agreed to participate, which is considered appropriate for qualitative research, as it ensures a robust and credible dataset for analysis (Vasileiou et al. 2018). Specifically, participants were from two cohorts that were linked to the periods before and after the onset of the COVID-19 pandemic:

- Pre-COVID-19 Cohort: This group included nurses who graduated in 2018 and 2019, prior to the pandemic significantly impacting the healthcare system and nursing education.
- Post-COVID-19 Cohort: This group consists of nurses who graduated in 2020 and completed their final year at the commencement of the pandemic.

2.3 | Data Collection

Data collection occurred between April and June each year from 2022 to 2024, with the timing of the interview associated with the participant's graduation date. One researcher (DT), specialising in the health workforce, conducted the interviews using telephone and videoconferencing technology. Each interview with each participant lasted between 20 and 60 min, with most interviews ($n=24$) lasting more than 45 min in length, and field notes taken during and after the sessions.

Each interview began with an open question inquiring into the experiences of the ECN in the last 12 months and the context of the previous 4 years. Overall, a semi-structured interview framework was followed, which had been piloted to ensure clarity, relevance and comprehensiveness of the questions. It included several standardised questions covering topics such as employment history since graduation, nursing experiences, professional challenges and positive aspects of nursing (Data S1).

Data saturation was achieved when no new themes emerged from the interviews, indicating that additional data collection would not provide further insights. Initial coding was conducted independently by the lead researchers within the team (DT and BP), who then met to discuss and refine the codes. This iterative process ensured that the coding was thorough and consistent. Themes were reviewed through the collaborative effort of the larger team to ensure they accurately represented the data. A thematic map was created to visualise the relationships between themes, providing a clear overview of the findings. The lead researchers determined over time that 25 interviews were sufficient to reach saturation based on the point at which recurring themes became evident and no new themes emerged. This decision aligns with Creswell (1998) who indicated that studies in phenomenology should comprise between 5 and 25 interviews. Additionally, it was ensured that the data collected was rich and detailed, providing a comprehensive understanding of the participants' experiences. The approach included continuous

assessment of the data to confirm that we had reached a point where further interviews would not yield new insights, thus achieving true saturation (Braun and Clarke 2021; Saunders et al. 2018).

2.4 | Data Analysis

Data were transcribed into Microsoft Word or through video-conferencing. The data were then cleaned, and participants were invited to verify the accuracy of their transcripts. Although the interview transcripts were shared with participants, none provided additional comments, corrections or insights. The data were labelled based on the year of the interview and the order in which participants were interviewed (e.g., Participant [P] 2, 2022; P16, 2023, etc.).

Thematic Analysis was employed to identify themes within the data (Braun and Clarke 2022), guided by the principles of Gadamerian Hermeneutics to ensure the analysis remained rooted in the dialogical process. Researchers followed the six phases of Thematic Analysis, where the research process began with familiarisation, immersing themselves in the data by reading and re-reading interview transcripts to deeply understand the content. This immersion enabled an understanding that is continuously refined through engagement with the text (Gadamer 2013).

Next, initial codes were generated by assigning meanings to each data set and grouping significant quotes from the interviews. This systematic coding of interesting features across the entire data set helped collate relevant data for each code. The coding process of each code represented a moment of understanding achieved through the interplay of question and answer. The initial codes were then categorised into potential themes by five researchers (TT, LR, DS, JE and JS), who independently sorted the different codes and collated all relevant coded data extracts within the identified themes. These themes were further refined through collaborative discussions and consensus within the research team, ensuring they worked in relation to the coded extracts and the entire data set and generating a thematic map of the analysis. Themes were then defined and named to capture their essence, using participant excerpts to enhance confirmability. This ongoing analysis was seen as a continuation of the hermeneutic dialogue, where themes were not just identified but interpreted in the context of the participants' lived experiences. Finally, the report was written, selecting vivid, compelling extract examples, conducting a final analysis of selected extracts, relating the analysis back to the research questions and literature, and producing a comprehensive report of the analysis. This systematic approach to data analysis was chosen as it does not consider previous research outcomes and minimises researcher bias, thereby improving the trustworthiness of the research (Braun and Clarke 2022).

To ensure the rigour of the study, several approaches were implemented, including peer debriefing, reflexivity and member checking. Peer debriefing involved regular discussions among lead researchers (DT and BP), with colleagues and experts to review and critique the research process and findings, helping to identify potential biases and areas needing further exploration.

This process refined their analysis and interpretations, ensuring robust and credible findings.

The research team consisted of experienced qualitative researchers with backgrounds in nursing education and health workforce research. The lead researchers (DT and BP) had prior educational relationships with participants, which may have influenced the data collection and interpretation. However, it is recognised when using Hermeneutic phenomenology that researchers cannot fully bracket out their preconceptions (Gadamer 2013). Nevertheless, to mitigate this, reflexive journals were maintained, documenting researchers' thoughts, decisions, and potential biases and how these might influence the research process and outcomes. Reflexive journaling increased the lead researchers' self-awareness of biases, provided transparency and encouraged critical examination of their analytical choices when undertaking initial analysis of the data (Musgrave 2024). The approach also enables the lead researchers to seek feedback from peers and mentors, ensuring a balanced and objective data analysis was achieved.

To enhance the trustworthiness and credibility of our findings, member checking was engaged by sharing the interview transcripts with participants for their feedback. Member checking allowed participants to confirm the accuracy of understanding among the researcher, provided additional context, while also challenging and refining the interpretations of the researchers. Member checking may not be necessary when using Gadamerian Hermeneutics, as the conversation is considered a moment in time; however, it has been demonstrated to be particularly valuable to strengthen the authenticity of the findings and demonstrate that participants' voices are adequately represented (McKim 2023). Despite this, we chose to engage in member checking to foster a collaborative dialogue and ensure a shared understanding of the data. As such, we invited participants to review their interview transcripts; however, no additional comments were made among any of the participants (Braun and Clarke 2022).

2.5 | Ethical Considerations

Ethical approval for the study was obtained from the Federation University Human Research Ethics Committee on 19 April 2018 (Approval #18-017) and covered all aspects of the study from 2018 to 2029. The research adhered to the ethical principles outlined in the Declaration of Helsinki for medical research involving human subjects, and all methods were conducted under relevant guidelines and regulations. Written informed consent was obtained from each participant at the commencement of the longitudinal study, and additional consent was sought prior to data collection when undertaking each interview.

3 | Findings

Participants were predominantly female ($n=19$, 76%), aged between 20 and 39 years ($n=17$, 68%) and primarily employed in hospitals ($n=19$, 76%), working 0.7–1.0 full-time equivalent hours ($n=15$, 60%). Among the 21 participants who participated in a graduate programme (formal residency experience) post-university, 20% ($n=5$) did not complete, as they were offered

permanent roles where they were completing their graduate training or found positions in their preferred nursing area. Nursing areas of work encompassed a heterogeneous specialities, from emergency ($n=2$, 8%), mental health ($n=2$, 8%), through to maternity or neonatal intensive care ($n=3$, 12%) and medical or surgical wards ($n=6$, 24%). The majority were working in acute care ($n=17$, 68%) and the remainder in community and aged care ($n=4$, 16%). Participants were geographically diverse, with 44% ($n=11$) working in metropolitan or urban areas, and 16% ($n=4$) not working, leaving the nursing profession or unable to work due to illness (Table 2).

Three themes emerged from the experiences of ECNs, which included gaps in preparedness, the power of being embedded, and too many balls to juggle. These themes centred on how the participants' educational experience both prepared and did not

prepare participants for key aspects and the rigours of nursing practice. The theme 'Gaps in Preparedness' was defined as the perceived lack of readiness for clinical practice, particularly in high-stress environments. The second theme, 'The Power of Being Embedded', centred on the challenges of the teaching and learning experiences and the perceived disconnect between university and hospital learning and the desire for more hands-on simulated laboratory and professional placement experiences. The third theme, 'Too Many Balls to Juggle', centred on managing life while focusing on getting through study amid the many competing interests and demands. Each theme is explored to provide overall insights regarding ECNs reflections on their learning experiences as undergraduates, now they were in practice 4 years after graduation.

3.1 | Gaps in Preparedness

Participants revealed a mixed sense of preparedness among nurses as they transitioned from education to practice. Some participants felt adequately prepared, citing clinical exposure and grounding experiences during their education. For example, P1, 2022 stated '[university], really prepared the students', and P4, 2021 commented they were 'clinically, yes, well prepared with no problems.' P1, 2022 also mentioned 'the clinical exposure... in the ICU for six weeks, that really gave ...a lot of grounding on what to expect after graduation.'

However, others expressed significant gaps in their learning, particularly in areas such as surgical and emergency nursing, rural health, and specific clinical skills like cannulation. P3, 2022 noted 'there was an enjoyment of the university experience and learning', but added they 'were not as prepared as they thought'. Another participant, P5, 2024, stated, 'nothing beats what you learn and how fast you learn when you're thrown in the deep end in an acute hospital setting.' P6, 2022 highlighted the limitations in their clinical training, saying, 'I didn't have a surgical placement... so I haven't worked in emergency, I haven't worked in surgical.' This suggests a significant gap in clinical experience, particularly in specialised fields, which are crucial for comprehensive nursing practice.

Theoretical knowledge was often contrasted with practical, on-the-job learning. Participants emphasised the importance of hands-on experience, teamwork and communication within the healthcare team, which they felt were not sufficiently addressed during their university education. P5, 2024 stated, 'I remember more of the practical stuff I did rather than what I've read or what I listened to', while P2, 2024 indicated, 'I think like the undergrad[uate experience]... gives you a lot of theoretical behind what you've got to do, but it's really that hands-on experience that you also need.' The importance of teamwork and communication was also emphasised, with P6, 2022 noting, 'You're part of a team, and how do you work as a team... we're sort of not taught to think of ourselves as team members as students.' P4, 2022 reinforced this by stating, 'It's our social side of it... you need to be able to talk to people.'

Conversely, the emotional toll of nursing, including dealing with grief and the day-to-day challenges of the job, was

TABLE 2 | Participant characteristics.

Demographic information	<i>n</i> = 25	%
Sex		
Female	19	76.0
Male	6	24.0
Age group		
20–29	8	32.0
30–39	9	36.0
40–49	6	24.0
50–59	2	8.0
Graduate year		
Completed	16	64.0
Incomplete	5	20.0
Did not participate in graduate programme	4	16.0
Where currently working		
Hospital	19	76.0
Aged Care	1	4.0
Primary health care/community	1	4.0
Not currently working clinically	4	16.0
Where currently working—Geography		
Metropolitan/urban	11	44.0
Rural/regional	10	40.0
No applicable	4	16.0
Hours currently working (full-time equivalent hours)		
0.9–1.0	1	4.0
0.7–0.8	14	56.0
0.5–0.6	4	16.0
Casual	2	8.0
No applicable	4	16.0

highlighted as an area for which many felt unprepared. Emotional preparedness is not easily taught in a classroom setting and often comes with experience. P3, 2024 mentioned, 'the only thing I'd say my undergrad[uate training] didn't prepare so much for was probably those real challenging situations or how to deal with them', and P1, 2023 added, 'there was a lot of stuff that I didn't know... about how hard it's going to be and how much of a grind it is.' P4, 2022 further added, 'the emotions side of what you have to deal with, and that you just cannot read that out of a book.' P9, 2022 spoke about 'the actual physical and emotional toll that it takes on you as a person... I was by no means prepared for that.' P1, 2023, emphasised the lack of emotional support, stating, 'after your degree...you're on your own.'

Despite these challenges, some participants expressed their gratitude for their educational experiences and the clinical exposure they received, which provided a foundation for their nursing careers. However, there was a juxtaposition of theoretical and practical knowledge highlighted among several participants, with one participant stating

I was a very good nurse on paper because I was good at studying and I was good at producing the work that I needed. But the actual absorption and comprehension of what I learned... I wouldn't say that I sort of got the most of out if.

(P6, 2022)

This reflects a common sentiment among participants that academic excellence does not always equate to practical competency. Other participants elaborated by indicating that what they learned as students was the start of ongoing learning and adaptation that needed to occur once they had entered the nursing profession. It was the realisation that study did not end with graduation but was the entry to the profession that was couched in life-long learning, with one participant stating, 'With nursing... you really end up learning as you go and on the go every day' (P3, 2022).

Further, participants identified the complexities of the learning and teaching experience. There was a sense that teaching could be better aligned between universities and hospitals. P4, 2022 noted, 'they're a bit siloed', indicating that conflict arose when there were inconsistencies between what was taught and what was practised. Consistency and clarity are important, as P4, 2022 mentioned, 'it's making sure everyone's on the same level, and that comes with a lot of communication.' Differences between university expectations and the reality of professional experience placements were also highlighted. P2, 2022 expressed a desire for more opportunities to discuss and understand these differences during their training, stating,

I don't feel like there was enough time to kind of like talk about experiences and different scenarios and... what we're seeing when we're actually out on placements to versus what we're expected to do at uni[versity].

(P2, 2022)

3.2 | The Power of Being Embedded

Participants highlighted the critical role hands-on experiences, specifically professional experience placements, played in their learning in higher education. These placements provided participants with crucial real-world experience, allowing them to forge meaningful relationships with healthcare professionals and gain familiarity with different healthcare facilities. This familiarity enabled participants to 'hit the ground running' (P4, 2022) when they commenced their professional journey after graduating. Professional experience placements were also indicated to offer participants the opportunity to apply theoretical knowledge in practical settings, fostering a deeper understanding of nursing practices. Learning by doing, observing senior nurses, and navigating real-life scenarios, such as patient care, was paramount in their learning. P4, 2022 reflected on their own experience as a student, stating, 'I think sometimes I've learned by doing.' They added,

There was an [nurse] I worked with when I was on placement. We had a patient that passed [away] the day I was working with her.... And... just watching her go about how she did everything.

(P4, 2022)

This observation of experienced nurses in real-life scenarios enriched the learning experience of students. P7, 2022 added, 'I don't think that you can learn what you need to learn until you're actually out there doing it... you're learning all the skills and stuff like that.' Several other participants expressed a preference for hands-on, practical learning experiences compared to theoretical learning. For example, P2, 2023 stated, 'I just, I couldn't grasp it. I'm more of a hands-on learner,' and P3, 2023 mentioned, 'I'm more of a practical person. I'm not very good with essays and stuff like that.' P10, 2022 added, 'I think you know the more hands-on stuff is good, you know? Any extra time that we could have spent in the labs would have probably been good.'

Participants, upon reflection, valued the ability to apply theoretical knowledge in real-world settings and suggested that more time should be allocated to practical learning experiences. P12, 2022 stated,

I found the labs stuff really helpful, but we never had enough time to do it. The placements could really consolidate all that theory.... More labs in third year would have been more helpful.

(P12, 2022)

However, they also added that getting simulated laboratory practice and professional experience placements successfully completed was vital, with less emphasis on the knowledge behind these activities. P9, 2022 stated, 'I just worried about getting our practice and our placement out of the way,' but recognised the value of theory with practice, adding,

I think if I was to do it again. Like I I'd have to do more study. If I could go back, I'd probably place a bit more emphasis on the theoretical component.

(P9, 2022)

Overall, the consensus was that hands-on experiences, professional experience placements, and simulated laboratory learning are invaluable for aspiring nurses. These experiences provide them with the skills and confidence needed in their future careers. Real-world exposure, relationships built with healthcare professionals, and familiarity with healthcare facilities were essential components of effective nursing education, enabling students to transition smoothly into their professional roles after graduation.

3.3 | Too Many Balls to Juggle

Participants shared their learning experience reflections, indicating that day-to-day distractions and distractions in life sometimes led to superficial learning rather than deep understanding. One participant noted that it was not just distractions but also the expectation of doing placements, assessments, working, and trying to have a social life that impacted their studies. The university experience was often swathed in stress and discomfort, and key principles were lost. P4, 2023 stated, 'You're pretty much in survival mode in uni[versity] and then when you walk out of it, you go – crap, I've forgotten everything' (P4, 2023). The narratives also revealed the challenges of balancing study with other responsibilities, such as work and family commitments. P5, 2023, reflected on their experience, saying,

My daughter was two at the time and my boy was four-and-a-half, so that was really challenging. I was also doing 0.8 FTE contract and my husband was also a shift worker.

(P5, 2023)

Despite the various challenges experienced, participants express a belief that their education has equipped them with the necessary tools and knowledge to succeed in their profession. They emphasised the importance of continuous learning and adaptation in nursing. P2, 2023 stated,

There is obviously knowledge there in the background that I have been able to tap into when I've needed to. I've been able to recall it and act on it in a very fast-moving environment.

(P2, 2023)

Another participant, P4, 2022, noted that remembering everything learned at university was not possible and that they needed to know where to find things or tools to use to know how to do things, saying, 'Not to have every answer straight away, but you can go and find it.'

It was noted that having previous nursing experience assisted participants' learning as students for future clinical skills, as

the basic skills came somewhat naturally to them. P4, 2022, expressed that they 'did not have to think about what they were doing.' P7, 2022 used the analogy of driving a car to explain, stating,

When you are first learning, it takes a lot more mental effort, and then after a while the tasks become more fluid and components completed automatically, without conscious thinking... All the clinical skills stuff is just what you do. It's mechanical.

(P7, 2022)

However, previous experience was not always helpful. Some participants discussed how everything they had learned in school seemed to 'disappear' and there was a need to relearn many things, particularly academic skills. It was difficult to build on previous learning experiences if a long time had passed between ending schooling and commencing university.

4 | Discussion

Gadamerian Hermeneutics, which emphasises understanding through dialogue and the pattern of question and answer, was pivotal in interpreting the experiences of ECNs and allowed for a nuanced exploration of the participants' lived experiences, revealing the complexities of their professional development (Gadamer 2013). The dialogical nature of the approach facilitated a deeper engagement with the data, enabling the identification of three key themes: gaps in preparedness, the power of being embedded and too many balls to juggle. These themes reflect the participants' ongoing negotiation of their professional identities and competencies within the nursing field. Participants' reflections on their preparedness and the challenges they faced highlight the condition of being in the world (Gadamer 2013). Their experiences highlight the dynamic interplay between theoretical knowledge and practical application, as well as the emotional and physical demands of nursing practice.

Within this context, the findings highlighted the experiences of ECNs in their fourth year after graduating. Some participants indicated that they felt adequately prepared, while others identified significant gaps, particularly in fundamental and specialised areas of nursing, such as surgical and emergency nursing. This is consistent with previous research, which demonstrates nursing students often feel unprepared or underprepared for the complexities of clinical practice (Masso et al. 2022). New graduates frequently report a sense of unpreparedness when transitioning into the realities of clinical practice, particularly in high-acuity settings (Masso et al. 2022; Wakefield et al. 2023). This sentiment was echoed by ECNs in this study, who, reflecting on their experiences as undergraduate students 4 years after graduation, highlighted similar challenges. The findings suggest a need for nursing education programmes to provide greater comprehensive and diverse clinical experiences, ensuring students are better equipped to meet the demands of professional practice (Opoku et al. 2021).

Furthermore, the balance between theoretical knowledge and its practical application emerged as a critical challenge. The findings highlight the necessity of hands-on clinical experience to bridge the theory–practice gap, with participants noting that academic excellence does not always translate to practical competency. The literature emphasises the importance of experiential learning in nursing education, with Benner et al. (2009) arguing that practical experience is essential for developing clinical reasoning and decision-making skills, which are crucial for effective nursing practice. In addition, it has been documented that simulation-based learning can enhance the practical skills of nursing students, suggesting that incorporating more simulation and hands-on training into nursing curricula could improve graduates' readiness for practice (Brown et al. 2022; Kreedi et al. 2021).

In addition to these existing challenges, the COVID-19 pandemic further exacerbated these issues by disrupting clinical placements and shifting education even more online (Haanes et al. 2024). This transition highlighted the inadequacies in the current system, such as the lack of preparedness for remote learning and the insufficient integration of technology in nursing education (Haanes et al. 2024). Participants reported that the pandemic-induced changes intensified their feelings of unpreparedness, particularly in high-stress environments and practical skills application (Spector and Silvestre 2024). The pandemic also emphasised the need for nursing education to be more adaptable and resilient, capable of maintaining educational quality and continuity in the face of such disruptions (Weberg et al. 2021).

Moreover, the pandemic further emphasised the importance of effective teamwork and communication, which are vital components of nursing practice. It was suggested that these skills were not sufficiently or explicitly emphasised as part of undergraduate learning. This finding aligns with Fuchshuber and Greif (2022), who found that teamwork training is often lacking in healthcare education despite its critical importance for patient safety and quality care. The findings also highlighted the need for interprofessional education to enhance collaboration and communication among healthcare professionals. Incorporating more teamwork and communication training into nursing curricula may help address this gap, better equipping students for effective collaborative practice in diverse healthcare settings (Fuchshuber and Greif 2022; Sheehan et al. 2022).

Participants highlighted concerns about the alignment between university education and clinical practice, perceiving inconsistencies between what was being taught and what was being practised. This well-documented challenge highlights the gap between theoretical education and clinical practice (Cunningham et al. 2015; Gassas 2021). It has been suggested that a better integration of theoretical and practical training is required to ensure nursing graduates are well prepared for clinical practice (Gassas 2021). Additionally, the challenges of distance learning and online education were also consistent with the literature, which indicates the difficulties of maintaining engagement and interaction in online learning environments (Jowsey et al. 2020).

Hands-on experience gained through professional experience placements is essential for nursing students, as supported by key research emphasising their roles in developing practical skills, professional competence, and a strong professional identity (Lynham 2023; Osman et al. 2023). Levett-Jones and Lathlean (2008) further add that professional experience placements are essential for bridging the gap between theory and practice, providing students with the opportunity to apply their knowledge in real-world settings. Ensuring that nursing students have ample opportunities for hands-on experience and professional placements is critical for their development as competent practitioners.

In contrast to the benefits of hands-on experience, participants highlighted the challenge of balancing academic responsibilities with personal life during their time as students. This struggle is a well-documented issue, with stress and difficulties in time management frequently identified as significant barriers to academic and personal well-being (Labrague 2024; Lavoie-Tremblay et al. 2022). Further, nursing students often struggle to balance their academic workload with personal and family commitments, leading to increased stress and burnout (Labrague 2024). Providing support and resources to help students manage their time and responsibilities effectively may assist in mitigating some of these challenges and improving their overall well-being.

The findings highlight several key areas where nursing education programmes may improve to better prepare graduates for the transition to professional practice. Enhancing clinical training, prioritising teamwork and communication skills, fostering emotional resilience, and offering ample hands-on experience are essential strategies. By addressing these areas, nursing programmes may help ensure that graduates are well prepared to navigate the complexities of professional practice, ultimately improving patient care quality and supporting the development of competent, confident and resilient nursing professionals.

4.1 | Limitations

While the number of participants in the study was appropriate for the methodology, it may not fully represent the diverse experiences of ECNs, thus limiting the generalisability of the findings. Additionally, the reliance on self-reported data and the time between the participants' experiences and the interviews may introduce potential recall and social desirability biases, which could impact the accuracy of the information collected. The use of videoconferencing technology for data collection may have also introduced biases, such as technical difficulties and the potential underreporting of sensitive information.

Moreover, the timing of data collection may have been influenced by COVID-19, which created a natural distinction between two cohorts of ECNs. While the primary aim was to maintain consistency in the research questions across the years, the pandemic introduced external variables that may have influenced the findings. The approach was chosen to ensure the reliability and validity of our longitudinal data. However, it is recognised that the pandemic likely affected the formative development of ECNs in various ways, such as increased stress levels, changes

in clinical practice environments, and shifts in educational experiences. Future research may benefit from a more focused examination of these pandemic-related factors to provide a deeper understanding of their impact on early career nurses. Lastly, the focus on ECNs in Australia further limits the transferability of the results to other geographical and cultural contexts.

5 | Conclusion

The aim of the study was to explore how ECNs perceive their preparedness for nursing practice, the teaching and learning experiences, and the role of professional experience placements on their professional development. Overall, this aim was achieved by highlighting that while baccalaureate nursing education provides a solid foundation, significant gaps persist in preparing students for the realities of clinical practice, particularly within the Australian context. The transition from theory to practice remains challenging, with many ECNs reporting feelings of unpreparedness for high-stress environments and the emotional demands of nursing. Greater emphasis on hands-on experience, simulation-based learning, interprofessional education and mentorship is essential to bridge this gap. By integrating practical experiences with academic learning, nursing programmes can better align education with the complexities of clinical practice. These measures will not only enhance confidence and competence but also help mitigate transition stress, supporting the retention of ECNs and strengthening the resilience of the nursing workforce.

Author Contributions

Made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data: Tracey Tulleners, Liz Ryan, Di Stratton-Maher, Jessica Elliott, Daniel Terry, Jo Southern, Jing-Yu (Benjamin) Tan and Blake Peck Involved in drafting the manuscript or revising it critically for important intellectual content: Tracey Tulleners, Liz Ryan, Di Stratton-Maher, Jessica Elliott, Daniel Terry, Jo Southern, Thenuja Jayasinghe, Geraldine Roderick, Linda Ng, Jing-Yu (Benjamin) Tan, Danielle Gleeson, Joanne Buckley and Blake Peck Given final approval of the version to be published: Tracey Tulleners, Liz Ryan, Di Stratton-Maher, Jessica Elliott, Daniel Terry, Jo Southern, Thenuja Jayasinghe, Geraldine Roderick, Linda Ng, Jing-Yu (Benjamin) Tan, Danielle Gleeson, Joanne Buckley and Blake Peck Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved: Tracey Tulleners, Liz Ryan, Di Stratton-Maher, Jessica Elliott, Daniel Terry, Jo Southern, Thenuja Jayasinghe, Geraldine Roderick, Linda Ng, Jing-Yu (Benjamin) Tan, Danielle Gleeson, Joanne Buckley and Blake Peck Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content.

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Ethics Statement

Ethical clearance for the 10-year research study was secured from the Federation University Human Research Ethics Committee on 19 April

2018 (Approval #18-017). The study complied with the Declaration of Helsinki (1964).

Consent

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data available on request from the authors.

Peer Review

The peer review history for this article is available at <https://www.webofscience.com/api/gateway/wos/peer-review/10.1111/jan.16987>.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.