SYSTEMATIC REVIEW



The impact of preceptorship on the newly qualified nurse and preceptors working in a critical care environment: An integrative literature review

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Abstract

Background: Preceptorship has been found to be effective in supporting Newly Qualified Nurses (NQNs) during their transition into challenging environments, particularly in addressing issues related to confidence and anxiety. Effective preceptorship is an element of best practice and essential to support NQNs' transition into the critical care setting. However, the impact of preceptorship on NQNs and their preceptors in critical care units is yet to be completely understood.

Aim: To review the impact of preceptorship on NQNs and preceptors working in a critical care environment.

Study Design: An integrative literature review of the literature. The review employed Whittemore and Knafl's (2005) five-stage integrative review approach.

Methods: Three databases (MEDLINE, CINAHL and PsycINFO) were searched for papers published between January 2010 and May 2022. The PRISMA framework was used to guide the search and screening. Thematic analysis was used to extract, organize and analyse the data.

Results: Nine studies were included in this review. Reflective thematic analysis revealed three themes, with four related subthemes. Preceptorship has an impact on the development of the NQNs and preceptors' 'nurturing' relationship. NQNs develop their knowledge, competence and confidence when experiencing supportive preceptorship. Meanwhile, preceptors experience a combination of increased workload and opportunities for learning and professional development as a result of preceptorship.

Conclusion: There is evidence of the impact of preceptorship on learning and professional development for both NQNs and preceptors, but this is a complex phenomenon and further research is required to understand this area more fully.

Relevance to Clinical Practice: In nursing practice, it is well-established that Newly Qualified Nurses (NQNs) often face heightened levels of anxiety and a lack of

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confidence when embarking on their careers, particularly in the demanding and stressful environment of critical care units. This review holds particular significance in the realm of clinical practice as it delves into the pivotal role of preceptorship in nurturing the professional growth and development of NQNs within the challenging domain of critical care. Effective preceptorship, as an essential component of best practice, plays a pivotal role in aiding NQNs' transition into critical care settings.

KEYWORDS

critical care, newly registered nurse, preceptor, preceptorship, work readiness

1 | INTRODUCTION

The shortage of registered nurses is presently an issue in the United Kingdom and internationally. UK governmental reports emphasize that the gap between National Health Service (NHS) staff requirements and supply is widening. Critical care units are especially vulnerable to challenges with supply and retention of nursing staff, and the recruitment of Newly Qualified Nurses (NQNs) into critical care areas is an increasing and international practice.

Evidence shows that the start of a nursing career is a challenging and vulnerable period for NQNs.⁶ The majority of NQNs experience lack of confidence, anxiety and stress, as a result of their limited preparation to transition to registered practice.^{7,8} Evidence suggests that NQNs' feeling of being overwhelmed is higher in critical care areas.⁹ Critical care units are highly demanding and stressful environments, and these elements may amplify feelings of anxiety and stress.¹⁰ Likewise, the specialist knowledge and skills required to work in a critical care unit may result in increased adaptation challenges.¹¹ For this reason, *Version 2.1 July 2022* of the Guidelines for Provision of Intensive Care Practice¹² reinforces the need for all nursing staff newly appointed to critical care to have a supernumerary practice period to work towards Step 1 of the National Competency Framework for Adult Critical Care Nurses.¹³ Therefore, structured and effective support is essential to facilitate the NQNs' transition to clinical practice.¹⁴

In 2010, the UK Department of Health (DH) produced a preceptorship framework to support newly qualified health care professionals. According to the Nursing and Midwifery Council (NMC), preceptorships are designed to assist newly registered professionals in integrating into a new environment and team. This personalized support is the most vital element of preceptorship and the focus of the current review.

Evidence suggests that preceptorship can reduce the stress of NQNs, facilitate their adaptation to the new role^{7,16} and increase their sense of belonging—improving recruitment and retention, and enhance patient care.⁹ Furthermore, when NQNs experience high-quality and effective preceptorship, they perceive it as beneficial for the development of competence and confidence in their knowledge and skills.¹⁷

Preceptorship is defined as the period during which NQNs ('preceptee') are guided and supported by an experienced colleague ('preceptor'), during their first job experience as a qualified nurse.¹⁸ The

What is known about the topic

- Preceptorship has demonstrated significant positive effects on both NQNs and preceptors working in critical care settings.
- Preceptorship has been found to be effective in supporting NQNs during their transition into challenging environments, particularly in addressing issues related to confidence and anxiety.
- The role of preceptors in fostering supportive relationships with NQNs is well-documented, contributing to their professional development, confidence and competence.

What this paper adds

- The review offers a comprehensive understanding of the critical care setting and highlights the crucial role of preceptors in nurturing and supporting NQNs, particularly in fostering confidence, competence and overall professional growth.
- The review sheds light on the challenges faced by preceptors in balancing their responsibilities, emphasizing the potential risk of burnout due to demanding workloads, which is a novel insight in this context.
- The review provides practical recommendations to support and protect preceptors, including the need for protected preceptorship time, formal training, continuous education and senior support, which can enhance their readiness, commitment and overall effectiveness in their role, ultimately promoting a positive working environment for both NQNs and preceptors in critical care settings.

preceptor acts as a person of reference, providing individual attention, support and guidance to the NQNs. Therefore, preceptorship is seen as an element of best practice to support the adaptation of NQNs to clinical practice as registered professionals and to minimize the impact of 'transition shock' and decrease attrition rates. ^{19,20} The terms

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'preceptorship' and 'mentorship' are commonly interchanged in the literature, especially when considering international evidence. For the current review, the practice intended to support the NQNs while transitioning from student nurse to qualified practitioner is referred to as preceptorship.

The transition period experienced by the NQNs when starting their registered nursing careers has been extensively studied. Important examples of such studies are the Kramer's²¹ 'reality shock' theoretical framework, Benner's²² novice-to-expert theory and Duchscher's²³ stages of transition theory. Kramer describes 'reality shock' as the emotions experienced by the NQNs when confronted with negative or unexpected events in an unfamiliar environment. Benner's²² novice-to-expert theory is based on a skill acquisition model, where nurses' knowledge and clinical skills develop through time as results of experience and practice. This emphasizes their need to consolidate before being able to practice at a competent stage.²⁴ Duchscher describes the NQNs' development of confidence in their skills and the environment as a linear process, divided into three stages: 'doing', 'being' and 'knowing'.

An integrative review by Innes and Callega¹¹ suggests that NQNs have a harder time transitioning to clinical practice in critical care. As a result of the requirements for specialist knowledge and a fast-paced environment, NQNs experience increased levels of stress and anxiety in critical care. 11 According to relevant literature, preceptorship, a supportive workplace culture, and peer support are the most effective strategies to support NQNs' transition into critical care. 5,11

Despite agreement in the literature on the increased difficulty and requirement for effective preceptorship to support the transition of NQNs in a critical care setting, there is limited substantive empirical evidence exploring the impact of preceptorship on NONs and their preceptors in critical care units. The aim of the current work was to provide an integrative literature review of the impact of preceptorship on NQNs and preceptors while working in a critical care environment, to provide an understanding of how preceptorship influences the learning and professional development of both NQNs and preceptors, and to provide direction on areas for improvement to enhance the practice of preceptorship in critical care settings.

DESIGN AND METHODS

2.1 Aim

The aim of this study was to review the relevant evidence on the impact of preceptorship on the NQNs and preceptors working in a critical care environment.

2.2 Design

The review utilized the Whittemore and Knafl²⁵ five-stage updated methodological framework for integrative reviews. The review process consisted of five stages, problem identification; literature search; evaluation of data; data analysis and synthesis; and interpretation and presentation of findings. Whittemore and Knafl²⁵ serves as a methodology that combines elements of systematic reviews, allowing for a structured approach to exploring specific topics. Despite its limitations, an integrative literature review can offer valuable insights to nursing practitioners and researchers.²⁶ In the data analysis phase, data were structured, coded and grouped into categories. During synthesis, the authors amalgamated the results, distilled key insights on the impact of preceptorship on NQNs and preceptors working in a critical care environment.

In addition to accommodating both quantitative and qualitative studies, integrative literature reviews encompass diverse research methods, from experimental to nonexperimental approaches.²⁵ Moreover, it holds the potential to contribute significantly to evidence-based practice by integrating multiple studies focused on a specific clinical issue, thus providing valuable insights for clinical nursing practice.²⁵ The value of an integrative literature review lies in its ability to culminate in a coherent and integrated conclusion.

Search strategies

A comprehensive literature search was undertaken to identify studies published between January 2010-May 2022 retrieved from the online databases Medical Literature Analysis and Retrieval System Online (MEDLINE), Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Psychological Information Database (PsycINFO). The search strategy was pursued using the keywords 'newly qualified nurses', 'preceptor', 'preceptorship' and 'critical care'. Searching was carried out using Boolean operators. Table 1 provides a detailed description of the search strategy and keywords used. The final database search was conducted on 31 May 2022. To separate terms, the Boolean search connector 'OR' was used, while 'AND' was used to combine concepts. A manual examination of the reference lists (snowballing) of all included studies was conducted to identify any additional articles that may have been overlooked during the database searches. The PICO (Population, Issue/ Interest, Context, Outcome) framework adapted by Fineout-Overholt and Johnson²⁷ for qualitative research was applied by the authors of this integrative review to guide the development of a focused and defined research

The population qualifying criteria as NQNs and or preceptor, means that only studies that explore the experiences of NQNs and or preceptors were included. Additionally, these studies had to have included NQNs and or the preceptor's experiences of preceptorship in their results. To increase the sensitivity of the search, literature that collected data from or referred to any type of critical care setting was included. Nevertheless, the specific context and environment characteristics were taken into consideration when assessing the impact of preceptorship on the experiences of NQNs and their preceptors in critical care units. To avoid the risk of translation errors, only studies written in English were included. Finally, all studies included were primary research and peer reviewed. Two reviewers independently

Population	Issue/Interest	Context	Outcome
Newly Qualified Nurses (NQNs) and preceptor	Preceptorship	Critical care units	N/a

TABLE 1 PICO framework.

Search term 1		Search term 2	Search term 2	
'Newly Qualified Nurs*' OR 'Newly Registered Nurs*' OR 'Novice Nurse*' OR 'New Nurse*'	AND	Precept* OR Mentor* OR Support OR Orientation	AND	'Critical care' OR 'Intensive care' OR ICU

TABLE 2 MEDLINE, CINAHL, PsycINFO search keywords.

TABLE 3 Inclusion and exclusion criteria.

Inclusion criteria

Studies that explore the experience of NQNs and or preceptors.

- Studies exploring the impact of preceptorship.
- Studies of critical care units, including any speciality and patient age group, for example, neonatal critical care, paediatric critical care, adult critical care, neuro critical care
- Studies that are published in English.
- Studies are published from the year 2010.

Exclusion criteria

- Studies that do not explore the experience of NQNs and/or preceptors.
- Studies that do not specifically address the impact of preceptorship.
- Studies conducted outside of critical care units, regardless of the speciality or patient age group (e.g., neonatal critical care, paediatric critical care, adult critical care, neuro critical care)
- Studies that are not published in the English language.
- Studies are published before the year 2010.

assessed each abstract against the inclusion and exclusion criteria (Table 3).

From the 75 studies located in the databases search, a total of nine articles were included in this review (Figure 1). Six studies met all the inclusion criteria and were selected to be included. A further two studies were identified as relevant by hand-searching the reference list of the six studies previously identified for inclusion. Lastly, one article was identified via a manual snowballing search.

The nine studies combined data from 94 NQNs, 87 preceptors and 17 senior nurses. Table 4 presents details on the main characteristics of included articles. Four studies only had NQNs as participants, 30-33 three only had preceptors 29,34,35 and finally, two of the studies had a mix of NQNs, preceptors and senior nurses as participants. 10.28

The studies were from three main geographical locations. Two were from Europe, $^{10.33}$ five studies were from the United States $^{28-32}$ and the last two were from Australia. 34,35 The type of critical care units varied from general adult critical care to speciality and mixed speciality critical care units.

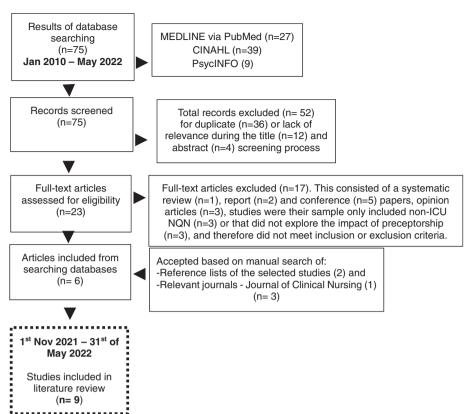
Two of the studies combined participants working in a critical care unit or an emergency department.^{29,31} These were included as they met every other inclusion criterion, and their findings were valuable to address the research questions and aims of this review. In relation to the study design, eight of the studies were qualitative and one was a mixed methods study.³⁵

2.4 | Quality appraisal

An in-depth, structured quality assessment of all the studies that met the inclusion criteria was performed to assess their methodological quality. Because this integrative review mainly included studies employing a qualitative design, the Joanne Briggs Institute (JBI) critical appraisal checklist for qualitative research was used.³⁶ For the one mixed methods study, the Mixed Methods Appraisal Tool (MMAT) by Hong et al.,³⁷ was employed. Both authors independently used the JBI and MMAT as a guide to identify methodological inconsistencies in each paper included in the review. In this review, the authors considered the presented evidence thoroughly rather than excluding papers solely based on their methodological quality. Therefore, paper quality was not an exclusion criterion, enabling a comprehensive evaluation of the review topic. This review did not exclude any articles based on their quality assessment scores; rather, the quality of the articles was considered when interpreting and presenting the results. However, the quality level of the evidence and its strengths and limitations were considered in the analysis and discussion of data.³⁸

Five studies were consistently rated 'yes' for each of the 10 criteria in the JBI tool. 30-34 There were two articles 10,28 that did not specify the philosophical methodology on which they were based but answered 'yes' to the other nine questions. Baumberger-Henry's study 19 had 'no' answers to questions three and eight of the JBI assessment tool. A theme seemed to emerge from a non-open question in Baumberger-Henry's 19 study, and the results section lacked vivid participant illustrations, despite identifying the study as a naturalist inquiry descriptive design. The only mixed methods study 15 in this review met MMAT screening and mixed methods criteria.

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2.5 Data analysis and synthesis

Whittemore and Knafl's²⁵ five-stage methodological framework provided a clearly defined, step-by-step approach that facilitated the comprehensive examination of the research question: 'How does preceptorship impact the experiences of NQNs and preceptors working in a critical care environment?' Thematic analysis informed by Braun and Clarke³⁹ was employed to explore the perspectives and experiences of NQNs and their preceptors in the critical care environment.

Furthermore, considering the heterogeneity and the mostly qualitative design of the evidence included in this research, as well as the need to use words to summarize findings relating to how preceptorship influenced the experience of NQNs and preceptors in critical care units, a reflective thematic analysis approach was adopted to identify common themes in the body of research and summarize these under thematic headings.39

After the search of databases selection of studies, the authors started the process of familiarization with the data.³⁹ They then moved to the coding phase, where nearly 50 different codes were identified. These were then grouped into code clusters that formed the bases of the initial themes produced. This was followed by multiple rounds of coding and theme development and definition. Lastly, the themes were refined and named. The final themes were divided into three categories: impact of preceptorship on the development of the NQNs and preceptor 'nurturing' relationship, impact of preceptorship on NQNs and impact of preceptorship on the preceptor. These were further divided into a number of subthemes.

RESULTS

Three themes and four subthemes were generated. A thematic map, as suggested by Braun and Clarke. 39 was created to facilitate visualizing the relationships between the themes (Figure 2). Table 5 presents the total number of themes and subthemes reported across the studies included in the review.

3.1 Study's themes and subthemes

Theme 1: The impact of preceptorship on the development of an NQN and preceptor 'Nurturing' relationship

Five articles explored the impact of preceptorship on the development of a nurturing relationship between NQNs and their preceptors (Table 5). In one study the NQNs valued having a dedicated preceptor that knew them and their skills and felt that working one-on-one with that preceptor was essential to 'build trust and confidence'. 28 Similarly, in a second study NQNs reported that their preceptors 'eventually became a confidante and friend' and how important this trusting relationship was considering their short orientation period.³⁰ In the study conducted by Della Ratta³¹ the NQNs referred to their preceptors as someone who 'offered emotional support' and protected them 'from criticism' or 'judgement of others'. In one of the studies the development of a nurturing relationship between the preceptor and NQNs appeared to have originated from a blend of preceptors' empathy and obligation to support the

TABLE 4 Included articles characteristics and key findings.

TABLE 4	Included articles characteristics and key findings.				
Author(s) and date	Study aim/s	Study design/data collection tool	Sample/location	Key findings/outcome measures	
Adams et al. ²⁸	To evaluate the impact and identify areas for improvement of a residency programme for NQN in critical care.	Twelve focus groups interviews Open-ended questions Qualitative study	34 NQN 18 Preceptors 10 Senior Nurses (Specialist and Managers) (N = 62) United States	Not having a dedicated preceptor was a key area of concern by the NQN and shared by the nurse directors, as it compromised the continuity of their learning and practice experience. Some NQN highlighted that having a dedicated preceptor helped to build trust and confidence. Difficulties in coordinating the NQN and preceptor shifts were identified as some of the challenges by the nurse directors. Unit managers and preceptors reported the impact of a high volume of NQN on the units: numerous shift changes to ensure the availability of preceptors and incapacity to recruit until the end of the programme due to the low volume of preceptors.	
Baumberger- Henry ²⁹	To describe the perspectives of preceptors on working relationships of new graduates in emergency and critical care units.	Six focus groups interviews Open-ended questions Qualitative study	31 Preceptors United States	Preceptors reported losing their patience and being frustrated with NQN questions when they were caring for an unstable patient. Preceptors recognized the negative impact of unhelpful and unsupportive behaviours from senior nurses on NQNs' learning and development.	
DeGrande et al. ³⁰	To explore the experiences of NQN who were recruited into an adult critical care unit and successfully transition from novice to competent, starting their third year of practice.	One-to-one semi- structured interviews Qualitative hermeneutic phenomenology	11 NQN United States	Preceptor support was important for the NQN development and professional competence. In some cases, the preceptor eventually became an informal confidant and friend.	
Della Ratta ³¹	To explore experiences of NQN working in acute care, ICU and ED, of caring for the deteriorating patient during their first year of practice.	One-to-one semi- structured interviews Qualitative interpretative phenomenological analysis	8 NQN (3 ICU) United States	Trusted relationships with preceptors were critical to graduate nurses' development, facilitating confidence and competence. Unsupportive preceptors and preceptor unavailability were linked to NQN feeling alone and abandoned. NQN avoided seeking the support of unsupportive preceptors and team members.	
Kaddoura ³²	To explore NQN perceptions of their critical thinking skills development through their relationship with their preceptors.	One-to-one semi- structured interviews Qualitative exploratory descriptive study	16 NQN	Preceptors' availability, encouragement and gradual promotion of autonomy were perceived by the NQNs as positive for their critical thinking skills development. Unsupportive and unavailable preceptors were seen as having a negative impact on the NQN development of critical thinking skills, autonomy and were avoided by NQN.	
Macey et al. ³⁵	To explore ICU nurse preceptors' perceptions of benefits/rewards, supports and their commitment to the role of preceptor. To identify the unique experience of nurse preceptorship in the ICU context.	Four-part survey: three validated questionnaires and an open-ended questions section Cross-sectional mixed methods design	33 Preceptors General Adult ICU Australia	Preceptors linked NQN teaching and support with personal satisfaction and personal professional learning. Role conflict, under-preparation and lack of peer and management support for the role were identified as the barriers by the preceptors. Consistency, adequate preparation and peer and leadership support were identified as enablers by the preceptors.	

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TABLE 4 (Continued)

IADLE 4	(Continued)			
Author(s) and date	Study aim/s	Study design/data collection tool	Sample/location	Key findings/outcome measures
O'Kane ¹⁰	To investigate the experiences of NQN starting their career in ICU. To explore the opinions of senior nurses in relation to NQN in ICU.	One-to-one semi- structured interviews Comparative qualitative study	8 NQN 7 Senior Nurses England, UK	Preceptorship was a positive experience. It was helpful to have two preceptors during the supernumerary time. Preceptors were, at times, unaware of when to reduce the supervision given depending on NQN confidence. Senior nurses talked at length about the preceptors' extra effort and work required to train NQN. Senior nurses identified a risk of 'preceptor burnout'. Preceptors need to be supported and carefully plan allocation to ensure preceptors are not overworked.
Serafin et al. ³³	To explore NQN readiness to work in a critical care unit. To analyse organizational aspects of the orientational process in a workplace	One-to-one semi- structured interviews Qualitative phenomenology	17 NQN Poland, Europe	Over half of the NQN had their preceptorship period reduced due to nurse shortage. Majority of the NQN had a variety of experienced nurses supporting them. A few NQN reported lack of support and being afraid of asking questions because of frequent comments about their lack of experience. NQN reported difficulties in gaining support and acceptance, especially from the more experienced preceptors. However, NQN perceived the more experienced nurses as better suited for the preceptor role, based on their knowledge and capacity to prepare them. NQNs reported experiencing a period of doubt about their professional choice and selfconfidence. Some NQN reported that talking to more experienced nurses helped them deal with stress.
Whittam, Torning and Patching ³	To report senior nurses' experiences of working with NQNs in the ICU.	One-to-one unstructured, interactive interviews Qualitative inquiry study	5 Preceptors Australia	Working with NQN increased preceptors' workload, contributing to stress, pressure and feeling overwhelmed. Preceptors feel an obligation to care for the NQN, to ensure patient safety and learning. Preceptors referred feeling satisfaction of being able to teach the NQNs, seeing them develop and learning from them. Preceptors use their past experiences to nurture, encourage and empathize with NQN.

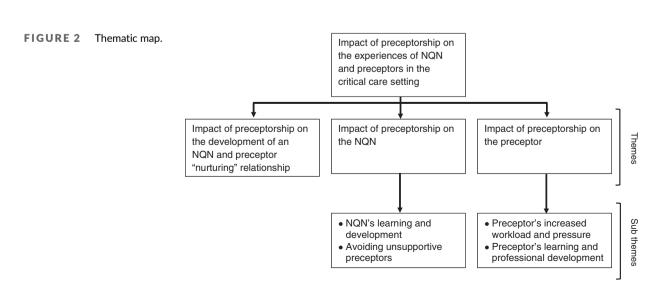


TABLE 5 Quality appraisal results.



development of NQNs. Some preceptors referred to the importance of making the NQNs 'feel comfortable' for them to ask questions and reach out to them for support. The empathy aspect was stronger in the preceptors that were NQNs when starting their own careers in critical care.³⁴

Lastly, in one study, the preceptors described the importance of 'reducing the stress of new graduates', helping them 'feel more comfortable in the Intensive Care Unit (ICU) environment' and to 'recognise their potential'.³⁵

Theme 2: Impact of preceptorship on the NQNs

Subtheme 1: NQNs' learning and development

Six articles explored the impact of preceptorship on the NQNs' learning and development (Table 5). Five of the studies that provided evidence with regard to this theme suggested that having an experienced preceptor to provide guidance and 'back up' promoted the NQNs' learning and growth of autonomy. NQNs expressed feelings of relief and reassurance when their preceptors were available to support them when they needed 'a rescue'. NQNs and 'construction' and 'constructive feedback' were some of the teaching and support techniques appreciated by the NQNs. NQNs. NQNs. NQNs.

In contrast, NQNs expressed feeling 'drowning' and 'being abandoned' when their preceptors were not available or when adequate support was not provided. 30-32 Not consistently working with their preceptor was a key concern identified by the NQNs as it negatively impacted their learning and development. 28,30,35 Senior nurses and preceptors also agreed that consistently working with the NQNs helps to understand their needs, 'reflect on that person's abilities', and 'provide stability to the preceptee'. Challenges to match NQNs and their preceptor' shifts were the most recurrent factor that affected consistent preceptor allocation and consequently the NQNs' learning and development.^{28,35} These challenges are often related to differences in shift length and the number of working hours per week between the preceptor and preceptee. A team of two preceptors that have the 'ability to communicate with each other' and 'commitment from the leadership team' to prioritize matching preceptor and preceptee rosters are the strategies most often recommended by the NQNs and preceptors. 10,35

Sub-theme 2: Avoiding unsupportive preceptors

Three studies reported the NQNs' reactions to unsupportive behaviours from their preceptors or senior colleagues (Table 5).

NQNs often described feeling 'afraid to ask' questions or to ask for support when preceptors 'humiliated' or 'criticized' them and refused to teach (Serafin et al., 2022). Furthermore, NQNs described how they learn who is on their 'team' and who to 'go to', to avoid unsupportive preceptors (31,32; Serafin et al., 2022).

Theme 3: The impact of preceptorship on the preceptor Subtheme 1: Preceptors' increased workload and pressure

Five studies explored the preceptors' increased workload and pressure associated with the preceptor role (Table 6). The preceptors often referred to situations of role conflict, especially when caring for an unstable patient and with limited time to support and teach NQNs. The preceptors' workload and pressure are increased when they provide support to NQNs. The preceptors referred to preceptorship as 'hard work', 'time-consuming' and 'mentally draining'. 10,28,29,34,35

Subtheme 2: Preceptors' learning and professional development

Two studies explored the preceptors' development and support (Table 6). The preceptors referred to the preceptorship experience as beneficial for their development and learning. 34,35 The support and teaching provided to the NQNs creates opportunities for the preceptors to reflect on their practice, 'update knowledge' and 'refresh hands-on-skills'. 34,35 For some preceptors, the preceptorship experience was perceived as an opportunity for 'career progression' as it enables the development of teaching and communication skills. Opportunities for teaching NQNs were linked to feelings of 'personal satisfaction' and pride for 'being able to pass on knowledge' contributing to the learning and development of the new nurses.

4 | DISCUSSION

The findings of this review regarding the development of a nurturing NQN and preceptor relationship support Quek et al.'s 40 descriptive qualitative study. This concluded that a preceptor and preceptee's

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Total number of subthemes reported across the studies.

References	Impact of preceptorship on the development of an NQN and preceptor 'nurturing' relationship	NQNs' learning and development	Avoiding unsupportive preceptors	Preceptors' increased workload and pressure	Preceptors' learning and professional development
Adams et al. ²⁸	✓	✓		✓	
Baumberger- Henry ²⁹				✓	
DeGrande ³⁰	✓	✓			
Della Ratta ³¹	✓	✓	✓		
Kaddoura ³²		✓	✓		
Macey et al. ³⁵	✓	✓		✓	✓
O'Kane ¹⁰		✓		✓	
Serafin et al. ³³			✓		
Whittam, Torning and Patching ³⁴	✓			✓	✓
Total number of subthemes	5	6	3	5	2

trusting relationship promotes effective communication. There was also a positive link described between a trusting relationship and the achievement of the preceptorship objectives through the influence of role modelling. The findings of this review also highlight the benefit of a supportive and trusting relationship, which is based on a model of influence without power and role modelling, 41,42 Furthermore, this approach is particularly pivotal in the context of the current preceptees' generation which is known for thriving in the presence of support, collaboration and less hierarchical relationships.⁴³

The NQNs' development of confidence is a complex and gradual process widely described in the literature studying the NQNs' transition to clinical practice. 16,17,44 Furthermore, the transition theory developed by Duchscher^{23,45,46} indicates that NQNs' confidence to perform professionally progresses during their transition process, being at the 12 months mark, the 'knowing' stage, where a stable level of belief in themselves and confidence with the environment is usually achieved. 23,45,46

This literature review supports the findings of Marks-Maran et al.'s⁷ study which concluded that effective preceptorship promotes the NQNs' development of knowledge and competence. Accordingly, Benner et al.'s⁴⁷ study concluded that experienced preceptors have the knowledge and skills that the novice lacks to practice autonomously. While Benner's²² novice-to-expert theory positions NQNs at the advanced beginner stage, the literature suggests that in the United Kingdom and other countries, NQNs are expected to be at the competent stage of Benner's theory, at the start of their nursing careers.^{7,9} This expectation of a higher level of competency from the NQNs might be greater in a critical care environment and contribute to further anxiety and stress.

This review is supportive of Elias and Day's⁵ findings which identified that having a consistent preceptor positively contributed to the development of relationships with colleagues, and recognition of skills and value of the NQNs. Similarly, to the current review, Elias and Day⁵ explored the experiences of NQNs working in critical

care. Their review included eight primary studies of qualitative design and a variety of adult critical care specialities. The authors followed a thematic synthesis approach for their data extraction and synthesis. They also chose to exclude primary studies which included data from neonatal and paediatric populations and only included studies which explored the experiences of NQNs. This contrasts with the present review, which included and analysed primary studies not only exploring the experiences of NQNs but also the experiences of preceptors.

A period of consistent preceptor allocation might be particularly valuable during the NONs' first 3 to 4 months of experience in the clinical environment. This seems beneficial to support NQNs during the most vulnerable stage of their transition, the 'doing' stage, accordingly to the stages transition theory. 23 Additionally, this review supports the findings of Quek et al.⁴⁰ which suggest that pairing preceptorship exposes the NQNs to different styles of teaching and working, while allowing preceptors to 'take a break'.

A qualitative study conducted by Ho et al. 17 concluded that NQNs have an increased sense of belonging and are more likely to stay at their current unit when they feel their preceptors and senior colleagues prioritize their learning and encourage them to ask questions. On the contrary, NQNs that feel unsupported are more likely to leave their current job or nursing career. These findings support and emphasize the significance of the sociocultural element described in Kramer's²¹ and Duchscher's²³ transition models. Frankenberger et al. 's⁴⁸ study also found that preceptors experience cognitive strain when challenged with having to keep their patients safe while performing their preceptee supervision responsibilities. In addition, increased workload makes preceptors feel discouraged and frustrated to support NQNs. 49 Furthermore, increased workload and stress may be indicators of burnout, which is linked to decreased job satisfaction, engagement⁵⁰ and workplace attrition.⁵¹

However, preceptorship also prompts preceptors to stay current with clinical practice and continuously learn. 48,52 More positively,

opportunities for ongoing learning and professional development are linked with increased job satisfaction.⁵³ Being able to approach peers, senior colleagues and education leads for support, and to provide suggestions for improvement of preceptorship are tangible strategies suggested in the literature to mitigate the negative aspects of preceptorship.⁴⁸ Protected time^{54,55} and prioritizing NQNs and preceptor matching allocation are also related to positive experiences of preceptorship for both the preceptor and NQNs. 48,52 Furthermore, formal training and ongoing education, and opportunities for members of the education team to assess the preceptee development are also recommended^{48,54} and linked to preceptors' increased perception of preparedness for the role.⁵⁶ Additionally, preceptors' increased insight of support and recognition are linked to a higher perception of benefits and commitment to the role, which result in increased satisfaction with the preceptorship experience for both the preceptor and NONs.57

5 | LIMITATIONS OF THIS REVIEW

The supervisor of the review, who has experience conducting integrative reviews, provided critical analysis, synthesis and integration of evidence from multiple professions. This review had some limitations, however. First, it only included English language papers, which may have limited the identification of relevant aspects and perspectives. In addition, the majority of the selected papers originated from the United States, while only one came from the United Kingdom/ Europe. 10 There needs to be consideration of whether these regional differences might have affected the overall conclusions. An integrative review has its own limitations, such as maintaining methodological rigour and ensuring unbiased synthesis of evidence. Integrative reviews require evaluating studies with varying research designs, which can be complex. The inclusion of low-quality studies may undermine the review's validity. Although this review incorporated electronic search of multiple databases, and manual search of the reference list of the studies included, it might still be possible that relevant studies were not identified.

6 | RECOMMENDATIONS OR IMPLICATIONS FOR PRACTICE AND FURTHER RESEARCH

6.1 | Recommendations for future research

- Undertake longitudinal studies that extend beyond the typical three to six-month time frame, allowing for a comprehensive assessment of how the influence of preceptorship evolves throughout the NQNs' transition into clinical practice.
- Investigate the impact of preceptorship on NQNs and preceptors working within large critical care areas to gain insights into the unique challenges and opportunities in such environments.

 Explore the effects of preceptors' increased workload, stress and potential burnout, shedding light on the broader implications of preceptorship on health care professionals.

6.2 | Recommendations for practice

- Foster a positive, supportive and trust-based relationship between NQNs and preceptors, with an emphasis on role modelling in line with the GPICs2 standards.
- Ensure consistent matching of NQNs with their preceptors, particularly during the initial 3 to 4 months of the NQNs' transition to critical care clinical practice.
- Consider the implementation of a dual preceptorship system, allowing NQNs to benefit from exposure to different teaching styles while providing preceptors with opportunities for rest and sharing their workload.
- Mitigate role conflict situations where preceptors are responsible for unstable critically ill patients while also providing guidance to NONs.
- Maintain continuous support and commitment from senior and education teams to sustain effective preceptorship.
- Offer formal and ongoing training, along with protected time, to enhance preceptors' preparedness, commitment and satisfaction in their preceptor role.

7 | CONCLUSION

This review explores the impact of preceptorship on NONs and preceptors in critical care. Evidence indicates positive effects on learning and development for both, but complexities warrant further research. A nurturing NQN-preceptor relationship, with role modelling and support, boosts the NQNs' confidence. Constructive preceptorship enhances NQNs' knowledge and competence. Consistent preceptorship, using a team of two, effectively supports NQNs during critical care transition and provides recharge time for preceptors. Positive preceptor behaviours reduce NQNs' stress, increasing their confidence and sense of belonging in critical care. Preceptors may face increased workload and stress, requiring further research for preventative strategies against burnout. Protected preceptorship time, formal training and continuous education enhance preceptor readiness and effectiveness. Preceptorship fosters continuous learning and growth for preceptors, requiring a balance of challenges and opportunities. The findings of this review contribute to global nursing education and clinical communities, enriching the understanding of preceptorships' significance and impact in critical care for both NQNs and preceptors.

ACKNOWLEDGEMENTS

Thanks are due to the librarians and supervisory team at Oxford Brookes University for their invaluable assistance with database searching, which significantly contributed to the completion of this study. Thanks are also extended to the dedicated librarians at John

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Radcliffe Hospital, Oxford University Hospitals NHS Trust, for their support and guidance. These individuals provide access to relevant literature and resources, help us navigate vast databases and offer expertise in information retrieval. We would not have been able to complete this integrative review without their unwavering commitment and cooperation. This research endeavour would not have been possible without their support and collaboration.

FUNDING INFORMATION

There is no fund available for this article.

CONFLICT OF INTEREST STATEMENT

There is no conflict of interest reported by the authors.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICS STATEMENT

As this study involves a secondary data collection and review of literature, rather than primary research with human participants, no ethics approval number or patient consent statement is required.

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How to cite this article: Lima MS, Alzyood M. The impact of preceptorship on the newly qualified nurse and preceptors working in a critical care environment: An integrative literature review. *Nurs Crit Care*. 2024;1-12. doi:10.1111/nicc.13061