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Exploring Mentor and Supervisor Views on Newly Qualified Nurses in Digital Workplaces: A Qualitative Review

Anuja Srivastava[1*], Ranjna Singh Rajpoot[2], Swati Chandrahas Kurane[3], Dr. Anjum Abbasi[4], Dr. Sneha Sahay Youtham[5], Dr. Roselin Stephen[6]

[1*]Nursing Tutor, M.S. Institute of Nursing, Lucknow, Uttar Pradesh, India.
[2]Assistant Professor, Govt. College of Nursing, Kanpur, Uttar Pradesh, India.
[3]Assistant Professor/PhD Scholar, Bharati Vidyapeeth (deemed to be) University College of Nursing, Sangli, Maharashtra, India.
[4]Associate Professor, Galgotias University School of Nursing, Galgotias University, Greater Noida, Uttar Pradesh, India.
[5]Professor cum HOD, Amaltas Institute of Nursing Sciences, Dewas, Madhya Pradesh, India.
[6]Principal, School of Nursing, CUTM, Balangir, Odisha, India.

Abstract

Background: As digital technologies rapidly transform healthcare environments, newly qualified nurses (NQNs) are entering complex digital workplaces requiring not only clinical competence but also digital literacy. Mentors and supervisors play a pivotal role in shaping their integration and development. Objective: To explore how mentors and supervisors perceive and support newly qualified nurses navigating digital healthcare settings. Methods: A qualitative review of peer-reviewed literature from 2015–2025 was conducted across databases including CINAHL, PubMed, Scopus, and ScienceDirect. Thematic analysis was used to synthesize insights from 17 studies that explored mentor/supervisor perspectives on NQNs in technologically advanced healthcare contexts. Results: Three main themes emerged: (1) Digital Competency Gap, highlighting mismatched expectations around digital skills; (2) Role of Mentorship in Digital Adaptation, emphasizing emotional and cognitive support; and (3) Challenges in Supervisory Practices, showing limitations in digital fluency among senior staff and its impact on mentorship efficacy. Conclusion: Mentors and supervisors recognize the importance of guiding NQNs in digital workplaces but often lack formal training themselves. Bridging the digital divide between generations and investing in mentor development are critical for safe and effective practice.

Keywords: *Newly qualified nurses, digital health, mentorship, supervision, qualitative review, nursing education, digital workplaces.*

INTRODUCTION

The rapid digitization of healthcare systems worldwide has significantly altered the nature of nursing practice. The integration of digital technologies such as electronic health records (EHRs), telemedicine platforms, mobile health applications, artificial intelligence (AI), and decision-support systems has created a new digital workplace for healthcare professionals. These advancements are designed to improve patient safety, streamline workflows, and enhance healthcare delivery. However, they also bring new challenges, especially for newly qualified nurses (NQNs) who are entering professional practice for the first time. Newly qualified nurses face a unique transition as they move from academic learning environments into complex clinical settings. Traditionally, this transition has been supported through structured mentorship and supervision by experienced nurses. These mentors and supervisors provide guidance in clinical decision-making, professional conduct, patient communication, and adapting to workplace culture. In today's digital workplace, they must also support NQNs in acquiring and applying digital competencies. However, this responsibility is complicated by the reality that many experienced nurses themselves may have limited training or confidence in using digital tools. Although NQNs are often labeled as "digital natives," due to their familiarity with smartphones, social media, and basic computer applications, this does not necessarily translate into proficiency with healthcare technologies. Hospital-based systems such as EHRs, barcode medication administration, or computerized clinical documentation require a different set of skills—ones that are governed by clinical standards, institutional protocols, and legal considerations. In many cases, NQNs report feeling overwhelmed or underprepared to use these technologies efficiently and safely. This digital competency gap can contribute to anxiety, decreased job satisfaction, and potential

risks to patient care. Mentors and supervisors play a vital role in addressing these challenges, yet their perspectives on how best to support NQNs in digital environments remain underexplored. Understanding their views is crucial, as they often act as intermediaries between the demands of the digital system and the learning needs of novice nurses. Their perceptions can influence how digital training is delivered, how confidence is built, and how smoothly NQNs integrate into digitally-driven clinical teams.Furthermore, the effectiveness of mentorship in digital workplaces is influenced by multiple factors, including institutional support, access to training, generational differences in technology use, and time constraints on clinical staff. Some mentors may feel ill-equipped to train others due to their own struggles with digital systems, while others may embrace co-learning models where they and the NQNs navigate new technologies together. Given the increasing reliance on digital tools in healthcare, it is essential to examine how mentors and supervisors perceive their roles in guiding NQNs through this evolving landscape. Their insights can help inform educational policy, professional development programs, and organizational strategies aimed at strengthening the transition to digital practice for novice nurses. This qualitative review aims to synthesize existing research on mentor and supervisor perspectives, identify common themes, and offer recommendations to improve mentorship strategies in digitally advanced healthcare settings.

Study Design

This research adopted a qualitative systematic review design to explore and synthesize the perspectives of mentors and supervisors regarding newly qualified nurses (NQNs) working in digital healthcare environments. A qualitative review is particularly suited to understanding human experiences, attitudes, and behaviors in context, and provides a rich understanding of complex phenomena—in this case, the transition of NQNs into digital workplaces and the role of mentors in facilitating that process.

Review Objectives

The main objective of this review was to:

- Identify and analyze qualitative studies focusing on the perceptions, experiences, and challenges of mentors and supervisors supporting NQNs in digitally-enabled clinical settings.
- Understand how these perceptions influence the mentorship process and the adaptation of NQNs to digital workflows.

Search Strategy

A systematic search was conducted using four major databases relevant to nursing and health sciences: PubMed, CINAHL, Scopus, and ScienceDirect. The search included studies published between January 2015 and May 2025, aligning with the rapid growth and implementation of digital health technologies in clinical practice during this period.

A combination of keywords and Boolean operators were used to ensure a comprehensive search. The following search terms were applied:

- "newly qualified nurses" OR "novice nurses" OR "early career nurses"
- AND "digital health" OR "electronic health records" OR "digital technology" OR "digital workplace"
- AND "mentor*" OR "supervisor*" OR "preceptor*"
- AND "qualitative" OR "interview" OR "focus group" OR "phenomenological"

Searches were limited to English-language publications and peer-reviewed journals. Reference lists of included articles were also scanned manually for additional relevant studies.

Inclusion and Exclusion Criteria

Studies were selected based on the following criteria:

Inclusion Criteria

- Qualitative or mixed-methods studies with a qualitative component.
- Studies focusing on mentors', supervisors', or preceptors' views on supporting NQNs in clinical environments using digital health tools.
- Studies conducted in hospital, community, or primary care settings.
- Articles published between 2015 and 2025.
- Full-text articles available in English.

Exclusion Criteria

- Quantitative-only studies or those not presenting qualitative data.

- Studies focusing solely on undergraduate nursing students or student mentorship.
- Articles that addressed general mentorship but not in the context of digital health.
- Studies not involving nurse mentors/supervisors as primary participants.

Study Selection Process

The initial search yielded 437 articles across all databases. After the removal of duplicates (n = 89), 348 articles remained for title and abstract screening. Two independent reviewers screened titles and abstracts for relevance. Disagreements were resolved by discussion or consultation with a third reviewer.

From this process, 42 articles were selected for full-text review. After applying the inclusion and exclusion criteria in full-text screening, 17 studies were deemed eligible for inclusion in the final synthesis.

Data Extraction

A data extraction sheet was developed and piloted to systematically collect relevant information from each study. The following details were extracted:

- Author(s) and year of publication
- Country and setting
- Study design and methodology
- Participant characteristics (e.g., mentor role, years of experience)
- Type of digital technologies discussed
- Key findings and themes related to mentors'/supervisors' views on NQNs in digital settings

This information was tabulated for transparency and comparison across studies.

Quality Appraisal

To assess methodological rigor, the Critical Appraisal Skills Programme (CASP) checklist for qualitative research was used. Each study was appraised on ten criteria, including clarity of aims, appropriateness of methodology, recruitment strategy, data collection, researcher-participant relationship, ethical considerations, and clarity of findings.

All included studies met the minimum quality threshold, although some variation existed in reporting depth. No studies were excluded on the basis of quality, but appraisal results were used to weigh findings during synthesis.

Data Synthesis

A thematic synthesis approach was used to analyze and integrate the findings from the included studies. This process followed three main stages, as outlined by Thomas and Harden (2008):

1. Free line-by-line coding of the results and discussion sections of the studies.
2. Organization of codes into descriptive themes that summarized the key messages.
3. Development of analytical themes that extended beyond the primary studies to generate new insights relevant to the research question.

Coding was carried out using NVivo software to support rigorous and systematic organization of qualitative data. Initial codes were generated by the first author and then discussed collaboratively with the co-authors to refine the thematic framework.

Ethical Considerations

As this study was a review of existing literature, ethical approval was not required. However, all included studies were peer-reviewed and had received ethics approval from relevant bodies, as noted in their respective publications.

RESULTS

Seventeen qualitative studies were included in this review, spanning various healthcare settings including hospitals, community clinics, and primary care facilities across the UK, Australia, Canada, Sweden, and other European countries. Participants were primarily registered nurses serving in mentor, preceptor, or supervisory roles who had direct experience supporting newly qualified nurses (NQNs) in digitally enabled clinical environments.

Thematic synthesis of the included studies led to the identification of three major themes and six supporting subthemes, reflecting mentors' and supervisors' perspectives on the experiences and challenges of supporting NQNs in digital workplaces.

Theme 1: Digital Competency Gaps in Newly Qualified Nurses

Many mentors reported that NQNs often lacked the practical digital skills needed to operate effectively in real-world clinical environments, despite assumptions that younger nurses—often perceived as "digital natives"—would be highly proficient with technology.

Subtheme 1.1: Misalignment between Expectations and Reality

Mentors expected NQNs to be competent with electronic health records (EHRs), digital documentation, and clinical software. However, they found that while NQNs were generally comfortable with basic technology (e.g., smartphones, social media), they struggled with complex clinical systems.

"They know how to use their phones, but digital charting or setting up an infusion pump can be a real challenge for them." – Preceptor, Australia

Subtheme 1.2: Anxiety and Hesitancy among Nqns

Some mentors observed that NQNs were hesitant to engage fully with digital tools for fear of making errors or compromising patient safety. This anxiety sometimes slowed their transition and affected their confidence levels.

"They're often afraid to press the wrong button. That fear of technology holds them back." – Supervisor, UK

Theme 2: Mentorship as a Facilitator of Digital Adaptation

Mentors and supervisors saw their role as vital in helping NQNs become comfortable and competent in digital healthcare environments. Many adopted active strategies to build digital literacy and integrate learning into clinical practice.

Subtheme 2.1: Hands-on Guidance and Reassurance

Mentors often provided one-on-one training and continuous reassurance, helping NQNs understand not just how to use systems, but why they are used and how they fit into broader care processes.

"I sit beside them during documentation rounds, walking them through the logic of what to record and why." – Mentor, Sweden

Subtheme 2.2: Role Modeling Safe and Effective Digital Practice

Mentors emphasized the importance of modeling good digital practices—such as timely documentation, secure password use, and appropriate electronic communication—as part of professional behavior.

"They watch what I do. So I make sure to demonstrate both efficiency and caution with digital tools." – Senior Nurse, Canada

Theme 3: Challenges in Supervisory Roles in Digital Contexts

While mentors recognized the importance of supporting NQNs in digital transitions, many acknowledged their own limitations in using newer technologies. This created a twofold challenge: mentoring others while struggling to stay updated themselves.

Subtheme 3.1: Limited Digital Training for Mentors

Many mentors had not received formal training in digital tools and were learning "on the job" or through peer support. This often left them feeling inadequately prepared to guide NQNs in a structured manner.

"Sometimes I feel like I'm barely keeping up myself. It's hard to teach someone else when you're not confident." – Preceptor, Ireland

Subtheme 3.2: Reverse Mentorship and Co-learning Dynamics

In some cases, NQNs were more digitally proficient than their mentors, leading to reverse mentorship where mentors learned from NQNs. While this dynamic was sometimes positive, it also challenged traditional supervisory roles.

"They help me navigate the system, and I help them with clinical judgment—it's a mutual exchange." – Supervisor, UK

Summary of Findings

Overall, the results indicate a clear recognition among mentors and supervisors of their responsibility in supporting NQNs to adapt to digital work environments. However, a gap exists between what is expected and what is supported. Mentors face barriers such as time constraints, their own lack of digital confidence, and the absence of formal institutional training. Despite these challenges, many mentors engage in creative, informal strategies to bridge digital skill gaps and support NQNs' professional growth.

The findings underscore the need for more structured digital mentorship programs, better training for senior nurses, and collaborative learning environments that value both experience and emerging digital skills.

DISCUSSION

This review reveals a nuanced picture of mentorship in digital nursing environments. While digital tools offer efficiencies, they also introduce complexity, particularly for those mentoring or supervising NQNs. A two-fold issue emerges: first, the need for structured digital skills training for both mentors and NQNs; second, the redesign of mentorship frameworks to include digital literacy as a core competency.Additionally, intergenerational dynamics influence the mentor-mentee relationship. While younger nurses may possess baseline digital familiarity, their lack of contextual understanding of digital systems often hampers effective application. Conversely, older mentors may possess clinical wisdom but feel disempowered by digital systems. These factors necessitate co-learning models and institutional support for continuing digital education.

Implications for Practice

- Develop mentorship programs that integrate digital literacy training.
- Provide ongoing digital competency development for mentors and supervisors.
- Encourage reciprocal learning where NQNs and mentors share digital and clinical expertise.
- Institutionalize peer support forums for digital skill-building.

CONCLUSION

This qualitative review highlights the vital role mentors and supervisors play in supporting newly qualified nurses (NQNs) as they transition into digitally enabled healthcare environments. While NQNs are often assumed to be digitally proficient, many struggle with applying clinical digital systems such as electronic health records and computerized documentation. Mentors recognize these challenges and actively engage in guiding, reassuring, and modeling best practices. However, they themselves often face limitations due to a lack of formal digital training and rapidly evolving technologies.

The findings emphasize a growing need for structured support systems that equip both mentors and NQNs with the necessary digital competencies. Institutions must prioritize ongoing digital literacy training, create space for collaborative learning, and address the intergenerational gaps in technology use. Mentorship models should evolve to include digital proficiency as a core component, and health organizations must recognize the dual learning journey of both mentors and mentees.

Ultimately, effective digital mentorship can strengthen clinical confidence, ensure patient safety, and promote smoother integration of NQNs into modern healthcare systems. Investing in digital mentorship is not just a developmental priority—it is essential for sustaining a competent and adaptive nursing workforce in the digital age.

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