

Clinical Learning Experiences in Nursing Students: A Review

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Abstract

This review examines the significance of clinical learning environments in shaping nurses' development. It highlights the shift from traditional, task-oriented training to a patient-centered, problem-solving approach emphasizing critical thinking and evidence-based practice. The Clinical Learning Environment Inventory (CLEI) is explored as a tool to measure student perceptions of these environments. Analysis of CLEI data from various studies suggests areas for improvement, including fostering innovation and promoting a safe space for questioning established practices.

Keywords: *Clinical Learning Environment Inventory (CLEI), nurses.*

Introduction

Clinicians in today's dynamic healthcare environment must be well-educated, lifelong learners actively engaged with the ever-expanding body of research informing best practices (1). The growing complexity of knowledge necessitates constant scrutiny to ensure efficient and effective patient care (2). This shift has driven a move away from the traditional, apprentice-based model of healthcare professional education, particularly for nurses. University-based programs now emphasize critical thinking, empowering students to analyze situations, seek relevant evidence, and judiciously apply it to provide optimal patient care (3, 4).

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The clinical environment is a recognized cornerstone of healthcare professional education, offering students a vital space to learn practice in real-world settings (3). For nursing students, the clinical practicum is a substantial and crucial component of their undergraduate degree. These experiences profoundly shape their attitudes towards learning, professional development, and overall practice. In addition, the literature consistently emphasizes the immediate environment's influence on how and what students (5, 6). This review analyzes quantitative studies using the Clinical Learning Environment Inventory (CLEI) by Chan (2001, 2002, 2003, 2004) to explore student perceptions of the practice environment and its impact on shaping how nurses learn. By examining these studies, we gain valuable insights into how students learn to apply knowledge in practical scenarios (7-10).

The evolving landscape of nursing education, with its growing emphasis on practical application and role development alongside theoretical knowledge, necessitates a focused exploration of clinical learning environments (4). This is further underscored by the acknowledged importance of these environments in shaping both learning and professional development. As a result, healthcare managers are called upon to actively cultivate and monitor organizational cultures that optimize student learning within these clinical settings (4).

The Significance of Clinical Learning Environments in Healthcare Education

The clinical learning environment offers more than just a venue for honing technical skills (11). A study emphasizes its significance in exposing students to the "norms" of practice, the established processes that guide patient care delivery (12). Ideally, students become integrated team members, learning from experienced clinicians (3). Extensive research by Twentyman et al. (2006) and Henderson et al. (2012) explores strategies for effectively integrating students into these team environments (4, 13). A sense of belonging is crucial for student success, as evidenced this sense of belonging is fostered by open communication within the clinical team and direct engagement with students during placements (14).

Effective communication between staff and students in nursing education should transcend simple information exchange and delve into the realm of critical reasoning and exploring possibilities for practice improvement (15). This can be achieved by cultivating workplace learning behaviors that encourage discussion and questioning around healthcare practices (16). Lave and Wenger (1991) highlight the significance of these behaviors in shaping learning within the clinical setting (17). Specifically, behaviors that facilitate understanding of nursing practice while simultaneously encouraging critical questioning are essential to dismantling traditional, ritualistic approaches to care (4). A dynamic and evidence-based approach to nursing, informed by open communication and critical reflection, is paramount to ensuring optimal patient care.

A Historical Examination of Learning in Clinical Nursing

Contemporary clinical education for nurses marks a sharp break from traditional approaches (18). Historically, nursing training focused on a rigid, task-oriented model, students observed a breakdown of work into segmented tasks, each assigned to a specific nurse and executed in a ritualistic manner (19).

In response to the limitations of task-based training, nursing education embraced a patient-centered, problem-solving approach grounded in evidence-based practice (20). The "nursing process," a structured framework emphasizing scientific principles, became the cornerstone of Western nursing education. This approach aimed to equip students with a systematic method for understanding patient needs. However, critiques emerged regarding the nursing process' limitations. Critics like Schon (1983) argued that its reductionist and fragmented nature stifled critical thinking and hindered independent decision-making in nurses (21).

Navigating the Clinical Hierarchy: Balancing Assimilation with Critical Thinking

Contemporary clinical placements present a complex learning environment for nursing students (22). Students strive for integration into the clinical team, often adopting "survival strategies" by internalizing team norms and prioritizing task completion over critical reflection. This focus on "fitting in" aligns with similar observations in Australia and the UK, where a desire for acceptance sometimes leads nurses to avoid questioning established practices (23). Such behaviors can hinder student engagement with patients, exploration of evidence-based practice, and critical analysis of patient management strategies (24).

Ideally, clinicians partnering with students in the learning environment can foster critical thinking and evidence-based practice by providing opportunities to develop abstraction skills, rather than relying on rote learning (16). Quality clinical learning environments promote staff development alongside skill acquisition and independent thinking. In such environments, nurses feel empowered to initiate evidence-based practice changes. The literature identifies that effective learning environments must motivate learners, foster a sense of inclusion, encourage relationship building among team members, and provide a safe space for asking questions and exploring practices (25).

Nursing education, however, is actively countering this historical tendency towards prescribed behaviors. The shift to tertiary education emphasizes a more challenging approach (26). Students are encouraged to explore diverse knowledge forms to address the complexities of nursing practice and develop critical thinking skills to effectively respond to individual patient needs. Structured, staged learning can successfully integrate fundamental practices into student habits, laying the groundwork for future expertise (27). As nurses progress through this learning trajectory, routine tasks become automatic, allowing them to recognize patient deviations from normal health and proactively tailor care plans that address individual needs and dignity. This balance between assimilation and critical thinking is essential for fostering well-rounded, patient-centered nurses (Table 1).

Table 1: Key characteristics of effective clinical learning environments:

Characteristic	Description
Fosters critical thinking and evidence-based practice	Provides opportunities for students to develop abstraction skills and apply evidence to practice.
Promotes staff development	Supports ongoing learning and development for both clinicians and students.
Encourages skill acquisition	Provides opportunities for students to develop and refine clinical skills.
Empowers independent thinking	Creates a safe space for students to ask questions, challenge assumptions, and develop their own clinical judgment.
Motivates learners	Creates a stimulating and engaging learning environment.
Fosters a sense of inclusion	Ensures that all learners feel welcome and valued.
Encourages relationship building	Promotes collaboration and teamwork among students and clinicians.

Provides a safe space for asking questions and exploring practices	Encourages curiosity and experimentation.
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Frameworks for Learning Environments

Effective clinical partnerships between students and clinicians prioritize developing abstraction skills for future practice, moving beyond simple knowledge transmission (16). High-quality learning environments foster staff development alongside student skill acquisition and independent thinking. This empowers nurses to initiate evidence-based practice changes (4). The literature highlights the multifaceted nature of such environments, emphasizing the need for learner motivation, inclusion, team member relationships, and a safe space for questioning and exploration (4, 7).

A Critical Review of Contemporary Learning Environment Research

While descriptive studies offer valuable insights into student experiences in nursing clinical placements, in-depth analyses of these learning environments remain scarce. Quantitative data, such as that captured by the Clinical Learning Environment Inventory (CLEI) by Chan (2001, 2002, 2003, and 2004), can provide crucial metrics on student perceptions. The CLEI specifically measures factors influencing student well-being during clinical placements, including aspects like personalization, involvement, task orientation, innovation, and individualization (7-10). This data can inform the development of more comprehensive analyses of these critical learning environments.

A Multifaceted Exploration of Learning Environments in Modern Educational Research

Chan (2001, 2002, 2003, and 2004) developed the Clinical Learning Environment Inventory (CLEI) to gauge student nurses' perceptions of their clinical placements. The CLEI utilizes two forms: "Actual" measures the current learning environment, while "Preferred" assesses students' ideal learning environment (7-10). It identifies six factors impacting the students' psychosocial well-being within the clinical setting. The CLEI's repetitive use allows for monitoring learning environments, with data analysis enhancing our understanding of these critical spaces

Investigating Student Experiences in Clinical Settings: Analysis of CLEI Data

Despite limitations in the current literature, with a focus on Australian contexts, the CLEI demonstrates promise for exploring similarities across diverse clinical cultures. Studies using the CLEI from three different countries offer initial insights into "typical" learning environments (28, 29). While student involvement in tasks emerges as a consistent theme, perceptions of recognition and involvement vary depending on the care model employed. Furthermore, studies by Smedley and Morey (2009), Chan and Ip (2007), Midgley (2006), and Twentyman et al. (2006) consistently report a lack of emphasis on innovation within these learning environments. This finding suggests a potential area for improvement in fostering a more forward-thinking approach to clinical practice among student nurses (10, 13, 28, 30).

Conclusion

Clinical placements offer a crucial space for student nurses to develop practical skills and integrate theoretical knowledge. However, the learning environment itself significantly impacts this process. By nurturing critical thinking, fostering a sense of belonging, and encouraging open communication, healthcare organizations can cultivate effective learning environments that empower nurses to deliver optimal patient care. Further research utilizing

the CLEI can provide valuable insights into these environments across diverse clinical settings, informing targeted improvements to optimize student learning and professional development.

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