PUBLISHED BY
JR
EDUCATION

Available online at http://ijite.jredu.id

International Journal of Information Technology and Education (IJITE) 5 (2), (March 2026) 46- 66

International Journal of Information Technology and Education (IJITE)

http://ijite.jredu.id

Managing Instructional Planning in Nursing Education: Development and Implementation of a Learning Management Model

Jolie Febri Ponamon[1]*, Harol R. Lumapow[1], Deitje A. Katuuk[1], Jeffry Sony Junus Lengkong[1]

[1]Doctoral Program in Educational Management, Graduate School, Universitas Negeri Manado, Indonesia

*Corresponding author: jolieponamon830@gmail.com

ARTICLE INFO
Article history:
Received: January 27, 2026; Received in revised form: February 22, 2026; Accepted: March 04, 2026;
Available online: March 06, 2026;

ABSTRACT

This study aims to analyze and develop a learning planning management model at the Faculty of Nursing, Sariputra Indonesia University, Tomohon, within the framework of the AIPNI competency-based curriculum. The study used a qualitative approach with an instrumental case study design to deeply understand the learning planning process involving study programs, lecturers, faculty leaders, and the internal quality assurance unit. Data were collected through interviews, observation, and documentation, then analyzed thematically with reference to the POAC (planning, organizing, actuating, controlling) management function. The results showed that learning planning has been implemented systematically through the preparation of Semester Learning Plans (RPS), academic coordination meetings, integration of theory and clinical practice, and periodic monitoring and evaluation. These practices reflect the application of the principle of constructive alignment that emphasizes the alignment between learning outcomes, learning strategies, and assessments. The integration of theoretical, laboratory, and clinical practice learning has been proven to strengthen the development of student competencies and clinical reasoning. However, the effectiveness of planning is still influenced by limited lecturer resources, a high student ratio, and the availability of practice facilities. This study offers a learning planning management model based on management functions integrated with an internal quality assurance system as a conceptual contribution to strengthening nursing education governance. Practically, these findings provide implications for nursing educational institutions in improving the quality of learning planning systematically, contextually, and sustainably to produce competent graduates who are relevant to the needs of the healthcare system.

Keywords: clinical reasoning, competency-based curriculum, learning management, learning planning, nursing education, quality assurance.

INTRODUCTION

Nursing education plays a strategic role in the healthcare system because the quality of graduates directly impacts patient safety, quality of care, and the effectiveness of healthcare services. The transformation of public health needs, the complexity of clinical cases, and the demands of professional regulations place nursing educational institutions in a position to consistently ensure the quality of learning processes and outcomes. In this context, learning management, particularly at the planning stage, is a key foundation for determining graduate competency achievement. Structured, competency-based learning planning has been shown to correlate with improved clinical practice readiness and decision-making skills in nursing students (Fukada, 2018; Levett-Jones et al., 2018). Globally, nursing education has shifted from a content-based approach to a competency-based approach and learning outcomes. This shift requires institutions to ensure alignment between the curriculum, lesson plans, teaching methods, assessments, and graduate profiles. The concept of constructive alignment emphasizes that learning plans must explicitly link learning outcomes with learning and evaluation strategies to ensure a coherent educational process (Biggs & Tang, 2011). In the nursing discipline, this alignment is increasingly important because learning is not only cognitive but also encompasses psychomotor and affective domains related to clinical practice and professionalism (Cant & Cooper, 2017).

In Indonesia, the nursing education curriculum adheres to national standards and professional regulations established by the Association of Indonesian Nursing Educational Institutions (AIPNI). The competency-based curriculum, which is periodically updated, aims to ensure uniformity in minimum graduate competency standards nationally. However, implementing the curriculum at the institutional level requires a learning management system that adapts to the local context, resource availability, student characteristics, and clinical practice needs. International literature confirms that the success of a competency-based curriculum is largely determined by the quality of learning planning at the program and course levels (Frank et al., 2010; ten Cate & Billett, 2014).

Learning planning in nursing education is inseparable from the integration of theory and clinical practice. Various studies have shown that a learning design that combines theoretical learning, laboratory simulations, and clinical practice in a structured manner can improve students' clinical reasoning, self-confidence, and preparedness for real-world situations (Cant & Cooper, 2017; Lapkin et al., 2010). Therefore, learning planning must consider the distribution of the credit load, the allocation of time between theory and practice, the readiness of laboratory facilities, and clinical supervision mechanisms. Failure at the planning stage has the potential to create a gap between curriculum standards and practical implementation in the field. In addition to academic aspects, learning planning is also closely related to institutional governance and quality assurance systems. Higher education in health is required to implement a quality assurance cycle that encompasses planning, implementation, evaluation, and continuous improvement. Regular monitoring and evaluation of Semester Learning Plans (RPS), graduate learning outcomes (CPL), and the effectiveness of learning strategies are

important indicators in maintaining academic accountability (Harvey & Williams, 2010; O'Connor et al., 2021). Thus, learning planning is not merely an administrative document, but a strategic instrument in the quality management of nursing education.

One significant challenge in nursing education is the weak integration of competency-based learning planning with practically relevant clinical practice and an adequate assessment system. Although competency-based curricula have been widely adopted, their implementation at the institutional level shows a disparity between formal curriculum documents and actual classroom and clinical practice due to a lack of integrated planning oriented toward measurable learning outcomes (Ten Cate & Snell, 2013). This situation is exacerbated by limited systematic monitoring and evaluation mechanisms for the learning process in clinical units, including a lack of ongoing feedback that can truly guide nursing students' learning improvement (Ellis et al., 2016). Consequently, there is a risk of a mismatch between expected graduate competencies and their preparedness for real-life healthcare contexts, which in turn impacts the quality of patient care and nursing professionalism in the field.

Although various studies have addressed the effectiveness of learning methods, clinical simulations, and competency assessments in nursing education, studies specifically examining the management of learning planning at the faculty level within the framework of management functions are still relatively limited, particularly in the context of nursing institutions in Indonesia. While the planning function is the starting point in the management cycle, determining the direction of organization, implementation, and control of learning. While numerous studies have examined the factors influencing learning quality in nursing education, there is a significant research gap regarding a holistic understanding of the relationship between learning planning and the effectiveness of clinical competency achievement empirically within an academic management framework. Previous studies tend to focus on micro-level aspects such as the effectiveness of learning methods, clinical simulations, or competency assessments separately, without mapping the specific contribution of learning planning as a key element in an educational management system (Cant & Cooper, 2017; Lapkin et al., 2010). Meanwhile, higher education literature emphasizes the importance of integrating planning, implementation, and evaluation as part of the quality assurance cycle. However, empirical evidence testing this integrated model in the context of nursing education remains limited, particularly in developing countries like Indonesia (O'Connor et al., 2021). This gap highlights the need for conceptual models and empirical research that systematically assess how learning planning variables influence student competency outcomes in academic and clinical settings. The POAC (Planning, Organizing, Actuating, Controlling) based managerial approach provides a systematic framework for understanding how learning processes are institutionally designed and controlled.

The study proposed in this article presents a conceptual and empirical approach that has not been widely researched in nursing education: the development of a learning planning management model that integrates the principle of constructive alignment with the academic management cycle within the context of a competency-based curriculum in Indonesian nursing educational institutions. The novelty of this research lies in the comprehensive application of the POAC (planning, organizing, actuating, controlling) managerial framework to link curriculum elements, learning strategies, assessment, and clinical feedback into a single, integrated model capable of causally explaining the relationship between learning planning and students' competency achievement and clinical practice readiness. Unlike previous studies that focused more on innovations in learning methods or partial

competency assessment, this study positions planning as a central variable in the dynamics of nursing education management and systematically examines its influence on educational outcomes (Biggs & Tang, 2011; Frank et al., 2010).

This article aims to analyze and develop a learning planning management model at the Faculty of Nursing, Sariputra Indonesia University, Tomohon, within the framework of the AIPNI competency-based curriculum. This study is expected to provide theoretical contributions in strengthening the learning management model of nursing education as well as practical contributions for higher nursing education institutions in improving the quality of learning planning systematically, contextually, and sustainably.

METHOD

Types of research

The research method used was a qualitative study with an instrumental case study design. The qualitative approach was chosen because this study aims to deeply understand the process, meaning, and dynamics of implementing learning management in the Faculty of Nursing in a real-world context. The instrumental case study was used because the Faculty of Nursing at Sariputra Indonesia University, Tomohon, served as a means (instrument) to gain a broader understanding of the learning management model based on the POAC (Planning, Organizing, Actuating, Controlling) management process. Through this approach, the researcher not only describes ongoing learning management practices but also constructs a contextual and applicable learning management model for nursing education.

Thus, the researcher has the freedom to use all data collection tools according to the type of data needed. For qualitative methods, the researcher uses them to develop a strategy to achieve the desired results. This strategy is the method chosen to achieve the objectives effectively and efficiently. This research strategy is related to obtaining data that aligns with the indicators of each variable or phenomenon being studied. To prove that the data is an indicator of a variable or phenomenon, two strategies can be used: one through understanding. Both strategies have their own objectives.

The first strategy is a measurement strategy, which aims to determine the magnitude of data expressed in numerical form. All phenomena can be converted into numbers, where these numbers indicate the magnitude or quality of the indicators of the variable. After being measured, they are then calculated. This process is called data quantification, so the resulting data is called quantitative data.

The second strategy, an understanding strategy, involves seeking deeper understanding of the meaning behind the externally apparent phenomena. Researchers are required to understand how research subjects think, express opinions, and behave according to their daily activities. This is done in-depth and continuously, so researchers spend time with the subjects they are studying. In this way, researchers can truly understand the meaning behind their study subjects' behavior.

Research Time and Location

The research was conducted in March 2024 – June 2024. The research location was at the nursing faculty of Sariputra Indonesia University, Tomohon.

Population and Sample

The population of this research consists of all courses taught by lecturers at the Faculty of Nursing, UNSRIT. The sample will be selected from several courses taught by lecturers at the Faculty of Nursing in the even semester of 2023/2024.

Data Collection Techniques

Data collection will be conducted using several methods:

1) Observation: The researcher conducts direct observations at the Faculty of Nursing, UNSRIT.
2) Questionnaires.
3) Documentation: The researcher

RESULTS AND DISCUSSION

Research Findings

Based on the interviews, the following information was obtained about the learning planning process at the Faculty of Nursing:

In the learning process, each semester, prior to the start of learning, the study program prepares several important things, including scheduling. The study program determines the courses according to the current curriculum and the number of credits, including theory, laboratory practice, and clinical practice (TA).

At the beginning of each semester, a lecturer meeting is held, where each lecturer presents the syllabus, the learning process, including attendance, and other necessary matters. Appointing lecturers, scheduling, faculty meetings, creating lesson plans (RPS) according to the syllabus, teaching according to the RPS, evaluation, remedial work, grade input, and graduation (BU).

The educational process is implemented in accordance with national academic standards to produce professional graduates based on or using the Competency-Based Curriculum and National Standards (KA).

The planning process begins with a meeting or forum before lecturers begin delivering material to students. The meeting discusses the subjects to be taught, the sub-subjects of the courses, including the syllabus and RPS, that will be taught and developed. The learning system at the Faculty of Nursing is well-established, utilizing both offline and online learning. This is expected to achieve learning objectives, ensuring students are focused on the learning process.

Before the start of the semester, a faculty meeting is usually held to determine the learning method. The process combines intensive theory (anatomy, pharmacology, nursing care, ethics) with clinical practice (simulation labs, tutor guidance, and practice in real healthcare facilities), emphasizing basic skills, effective communication, empathy, and problem-solving (VB).

The learning planning process focuses on the Lesson Plan (RPS). Meetings are held to discuss the RPS, then proceed to the learning process. The planning process is quite effective, as the learning system is structured according to the established curriculum (IW).

The planning process begins with obtaining the syllabus from the study program, which is then adjusted to the prepared RPS, thus meeting the standards (CE).

Before commencing the learning process, lecturer meetings are held, institutional meetings, and then faculty meetings. The faculty meetings are more technical in nature, conveying the semester's learning plan, then dividing the schedule for lecturers and highlighting important points to focus on/points to consider in the learning process related to the courses to be taken during the semester. (EM)

The results of this study indicate that the learning planning function at the Faculty of Nursing has been implemented systematically and structured, with the curriculum serving as the primary foundation for the entire academic process. Informants consistently emphasized that planning begins before the semester begins, through the determination of course subjects, number of credits, and the format of theoretical learning, laboratory practicums, and clinical practice. This pattern reflects the application of the principle of alignment in nursing education, namely the alignment between the curriculum, learning plans, teaching methods, and graduate learning outcomes. In international literature, integrated planning between theory and clinical practice is considered a key prerequisite for producing competent and professional nursing graduates (Fukada, 2018; Salminen et al., 2020).

The routine lecturer meetings held at the beginning of the semester, as expressed by almost all informants, demonstrate that learning planning is not individual, but rather collective and collaborative. This academic forum serves as a discussion forum for aligning the syllabus, Semester Learning Plan (RPS), evaluation mechanisms, and learning strategies. This practice aligns with the constructivist perspective in higher nursing education, which emphasizes the importance of faculty collaboration as an academic community to ensure consistent learning quality across courses and faculty (Benner et al., 2010; Lavoie et al., 2019). Thus, faculty meetings serve not only as an administrative mechanism but also as a managerial instrument for building pedagogical understanding.

The informants' emphasis on the use of the Competency-Based Curriculum and National Higher Education Standards indicates that learning planning has been directed toward achieving professional nursing competencies. In the context of global nursing education, a competency-based approach is considered capable of bridging the gap between academia and clinical practice, focusing on mastery of skills, professional attitudes, and clinical decision-making abilities. International studies confirm that competency-based learning planning provides clarity of direction for faculty and students and enhances graduates' preparedness for the complexities of nursing practice (Frank et al., 2010; ten Cate & Billett, 2014).

Furthermore, interviews revealed that the Learning Plan (RPS) is a central instrument in the learning planning process. The RPS is prepared based on the study program syllabus and developed by the lecturer based on the course characteristics. This demonstrates institutional awareness that the RPS is not simply a formal document, but rather a learning map that guides the learning process throughout

the semester. From a learning management perspective, the RPS serves as a quality control tool during the planning stage, as it includes interrelated learning outcomes, materials, methods, media, and learning evaluations (Biggs & Tang, 2011).

The implementation of offline, online, and blended learning systems mentioned by informants demonstrates the adaptation of learning planning to the dynamics of post-pandemic higher education. The flexibility of this learning model reflects the faculty management's ability to respond to changes in the external environment without compromising learning objectives. Recent research in nursing education shows that blended learning, when carefully planned, can increase student engagement, conceptual understanding, and readiness for clinical practice (Oducado & Estoque, 2021; Liu et al., 2022). However, the effectiveness of this approach depends heavily on the quality of learning planning, particularly in integrating online activities with practical learning.

The integration of intensive theory and clinical practice emphasized in the interviews reflects the unique character of nursing education, which demands a balance between cognitive, psychomotor, and affective skills. Learning planning that integrates anatomy, pharmacology, and ethics with laboratory simulations and clinical practice demonstrates a holistic learning orientation. Scopus Q1 literature confirms that learning planning oriented toward the integration of theory and practice is key to developing clinical reasoning, empathy, and professionalism in nursing students (Levett-Jones et al., 2018; Cant & Cooper, 2017). Overall, interview results indicate that the learning planning function in the Faculty of Nursing has been quite robust from a structural and procedural perspective. Planning is conducted systematically, collaboratively, and based on the curriculum and competencies. However, from a nursing education management perspective, these findings also indicate the need to strengthen the evaluative aspects of the planning stage, particularly in ensuring that planning documents are consistently implemented in learning practices. Thus, learning planning does not stop at the administrative stage but becomes a strategic foundation in the continuous cycle of improving the quality of nursing learning.

Based on the interviews, information was obtained regarding the parties involved in learning planning and their respective roles. The following findings were obtained:

The RPS is essentially prepared by the teaching lecturer or a team of lecturers/divisions of the subject area. The RPS is based on the syllabus, which serves as a reference for the study program when preparing the Permata Kuliah RPS. (TA)

At the beginning of each semester, a lecturer meeting is held to discuss the syllabus, the learning process, including lecturer attendance, and other matters. Lecturers receive the syllabus prepared by the faculty. Incomplete or incomplete syllabi are discussed with all lecturers who are familiar with the methodology used in the course. (BU)

The Semester Learning Plan (RPS) is prepared through an academic coordination meeting or a lecturer meeting. Before the start of classes, the study program drafts the RPS and shares it with the lecturers teaching the courses. These lecturers and the teaching team then compile it based on the course they are teaching and their competencies/interests. (KA)

The components involved in learning planning are the study program and lecturers. Before the lecturers begin delivering material to students, a meeting or forum is held to discuss the subjects to be taught. (SO)

Before the start of classes, perhaps at the beginning of the semester, a meeting is usually held within the faculty to determine teaching methods and other matters, which will be discussed at the faculty meeting. (VB)

The leadership and the team involved are based on their respective fields. Depending on the specific field, there will be a team and a team of lecturers who will discuss the course material to be presented and the teaching schedule. (IW)

I, myself, am a lecturer; there are also members from the study program and LPMI (Institute for Student Affairs). Yes, there are also members with the Dean. (CE)

When teaching, we use the RPS (Lesson Plan), and the RPS is created by the lecturer or the teaching team, which will be taught to students throughout the semester. So, those involved in learning planning are the lecturers and the study program (EM).

The results of this study indicate that learning planning in the Faculty of Nursing is implemented through collaborative mechanisms involving various key actors within the academic structure. The main actors consistently represented in all informants' statements are course lecturers, study program leaders, faculty leaders, and the internal quality assurance unit. This multi-stakeholder engagement pattern reflects the practice of shared academic governance, which in nursing higher education is viewed as a strategic approach to ensuring integration between academic policies, learning needs, and educational quality standards (Harvey & Williams, 2010; Shin & Harman, 2009).

Lecturers, both individually and in teaching teams or by academic division, play a central role in developing Semester Learning Plans (RPS). Informants emphasized that lecturers are responsible for developing RPS based on the established syllabus, adapting course learning outcomes, teaching materials, learning methods, and evaluation systems. This role demonstrates that lecturers function not only as learning implementers but also as instructional designers at the course level. In the context of nursing education, the role of lecturers as learning designers is crucial, as they must ensure the integration of theory, laboratory simulations, and clinical practice to ensure holistic development of student competencies (Fukada, 2018; Levett-Jones et al., 2018).

Study programs (Prodi) act as academic coordinators, bridging institutional policies with the implementation of learning at the course level. This study also shows that the Prodi provides syllabi, prepares initial drafts of the RPS (Lesson Plan), and facilitates academic coordination meetings at the beginning of the semester. This role positions the Prodi as the controller of curriculum alignment, ensuring that each RPS developed by lecturers remains within the competency-based curriculum framework and the established graduate profile. The literature confirms that the Prodi's coordinating role is crucial for the consistency of learning quality across courses and prevents curriculum fragmentation in nursing education (Salminen et al., 2020; Genn, 2010).

Faculty leadership, including the dean and other structural staff, plays a role in establishing the direction of learning policies and providing legitimacy to the planning process. The involvement of faculty leaders in early-semester meetings, as expressed by informants, demonstrates that learning planning is positioned as a strategic issue, not merely a technical operational matter. From a higher education management perspective, the involvement of academic leaders in learning planning contributes to the creation of a culture of quality and institutional accountability, particularly in the nursing discipline, which is heavily regulated by professional standards and external regulations (Morin, 2020; O'Connor et al., 2021).

Furthermore, the involvement of the Internal Quality Assurance Agency (LPMI), mentioned by informants, indicates that learning planning is also within the framework of a quality assurance system. The LPMI's role is to ensure that the lesson plans and syllabi developed meet national higher education standards and accreditation standards. The presence of a quality assurance unit in the planning process reflects the implementation of the quality assurance cycle, where learning planning serves as the starting point for a continuous quality improvement cycle. This study confirms that integrating quality assurance into learning planning improves the consistency of curriculum implementation and the transparency of the academic process (Harvey & Williams, 2010; Lavoie et al., 2019).

Periodic lecturer and faculty meetings serve as deliberative forums to align perceptions, learning methods, and the distribution of teaching tasks. These forums allow for discussion of unfinalized syllabi, adjustments to learning methods, and strengthening pedagogical approaches appropriate to the characteristics of nursing courses. In nursing education, such collective forums play a crucial role in building pedagogical understanding and promoting consistency in student learning experiences, particularly in courses taught by more than one lecturer (Benner et al., 2010; Cant & Cooper, 2017). Overall, the results of this study indicate that learning planning in the Faculty of Nursing involves a network of complementary actors with relatively clear roles. Lecturers act as learning designers and implementers, study program coordinators and maintainers of curriculum alignment, faculty leaders determine strategic direction, and the Institute for Student Leadership (LPMI) safeguards academic quality. This collaborative pattern demonstrates that learning planning has moved beyond an individual approach to a collective and institutionalized learning management system. However, the challenge ahead is to ensure that the synergy of these roles is not only strong at the document planning stage, but also consistently realized in the implementation of learning in the classroom, laboratory, and clinical practice.

Based on the interviews, information was obtained on how learning planning is aligned with: the nursing curriculum, graduate learning outcomes (CPL), and clinical practice needs, as follows:

> *Our curriculum follows the AIPNI (Association of Indonesian Nurse Education Institutions) curriculum for undergraduate programs and the Nursing Study Program for learning design. AIPNI, in particular, changes its curriculum every four years, and the Faculty of Nursing and Health Sciences actively follows these changes. The program adapts and does not deviate from existing regulations, but rather aligns with the program's strengths. Practical work, particularly laboratory work, is conducted in several specific courses. Not all courses have practicums; only certain courses, aligned with the curriculum, are mandatory. Some compulsory courses have practicums because they relate to clinical practice in hospitals. The provision of laboratory facilities is paramount. (TA)*

Learning planning is based on the curriculum. The curriculum used in the Faculty of Nursing is the national curriculum, namely the AIPNI (Association of Indonesian National Nursing Institutions) curriculum. So, to manage this, look at the course structure, which is spread across several semesters. Check whether there are any compulsory courses in Nursing, and whether they are offered in odd or even semesters. (BU)

The Faculty Leadership is responsible for establishing general academic policies at the faculty level and ensuring the availability of resources and infrastructure to support the teaching and learning process. The Head of Study Program (Kaprodi): Coordinates the development of the curriculum and Semester Learning Plan (RPS). Conducts regular evaluations of the learning process and the achievement of Graduate Learning Outcomes (CPL). The Lecturer in Charge: Acts as a detailed instructional designer with the following duties: Developing teaching materials, modules, and assessment instruments (evaluations) relevant to the RPS, and selecting effective learning methods (such as discussions, practicums, or simulations) according to student characteristics. The Internal Quality Assurance Agency (LPMI) audits and monitors the implementation of learning to ensure quality standards are met. Additionally, the Academic Administration Staff: Assists with technical operational aspects, such as class scheduling, managing academic information systems, and administering student registration. Stakeholders and Graduate Users: External parties, such as hospitals or community health centers, often provide input regarding practical competencies needed in the field, which are then integrated into curriculum planning. (KA)

The curriculum used in the Faculty of Nursing follows the 2021 AIPNI Curriculum. (SO)

The AIPNI Curriculum, as the material presented to students is guaranteed to align with that curriculum. (VB)

In the faculty, learning planning focuses on the RPS. Regarding the development of theory and practice, there are usually 16 meetings. Regarding the development of the learning schedule, we also have practicums, pre-practicums, which are usually four credits. In a typical course, there are seven meetings for theory, followed by skills lab sessions. This combines theory and skills lab sessions. (IW)

The initial steps taken in planning the Nursing curriculum are: First, coordinate with the Head of Study Program, and especially with nursing students during class. We must consider the learning objectives of the CPL (Curriculum Learning Plan) in the Learning Outcomes Plan (RPS), of course, both theoretical and practical learning. Okay, so we must complete the theory first, then move on to practical learning. The theory must come first. (CE)

The learning plan is prepared in accordance with the RPS and journals that are determined daily or at each meeting, just like any other learning plan. So, in accordance with the curriculum established by the institution, we must also consider the needs of the student market and the market needs in

healthcare. For example, although there are benchmarks in the curriculum, we always pay attention to current conditions, current issues, or trends in healthcare, hospitals, or other services, so that our curriculum doesn't become rigid. (EM)

The results of this study indicate that learning planning at the Faculty of Nursing is conceptually and operationally based on the national curriculum established by the Indonesian Institute of Nursing (AIPNI). The AIPNI curriculum is positioned as a normative and professional framework that serves as the primary reference for developing course structures, distributing credits, and determining compulsory and elective courses. Adaptations to the AIPNI curriculum, which is periodically updated every four years, reflect the institution's commitment to maintaining the relevance of nursing education to scientific developments, professional regulations, and the needs of the healthcare system. In the literature, adherence to a curriculum based on professional standards is seen as a key foundation for ensuring consistent competency of nursing graduates across institutions and practice areas (Frank et al., 2010; ten Cate & Billett, 2014).

Despite its reliance on the national curriculum, interviews also indicate room for institutional adaptation in learning planning. Study programs adapt the AIPNI curriculum to local strengths and institutional characteristics, without deviating from established standards. This approach demonstrates the application of the principle of curriculum contextualization, where the national curriculum is translated into the local context of the institution and the needs of stakeholders. This study confirms that controlled curriculum flexibility allows nursing institutions to respond to the dynamics of healthcare without compromising professional standards (Salminen et al., 2020; Frenk et al., 2010).

The alignment of learning plans with graduate learning outcomes (CPL) is evident through informants' emphasis on the relationship between CPL, RPS, and the structure of theoretical and practical learning. CPL serves as a starting point for determining course learning objectives, the sequence of materials, and learning strategies. The practice of completing theoretical learning before practicum, as expressed by informants, demonstrates the application of the principle of scaffolding learning, where students are equipped with a conceptual foundation before being exposed to the context of clinical practice. In nursing education, this approach is considered effective in improving clinical reasoning and student readiness for real-life situations in healthcare (Levett-Jones et al., 2018; Cant & Cooper, 2017).

The results of this study also demonstrate that learning plans take the needs of clinical practice seriously. Not all courses are designed to include practicums, but only certain courses directly relate to clinical competencies and nursing practice in hospitals or other healthcare facilities. This decision demonstrates academic selectivity that considers competency relevance and the availability of laboratory facilities and infrastructure. In the literature, the alignment between practicum design, facility capacity, and clinical practice needs is seen as a key factor in ensuring the quality of nursing practice learning (Cant & Cooper, 2017; Lapkin et al., 2010).

The integration of theory, laboratory practicum, and clinical practice is reflected in the learning session structure, for example, with 16 sessions combining theory and skills lab sessions. This model reflects an integrated curriculum approach, where learning is not strictly separated between theory and practice, but rather designed to reinforce each other. This approach aligns with research findings showing that integrating theory and clinical simulation can increase nursing students' confidence,

psychomotor skills, and preparedness before entering real-life clinical practice (Cant & Cooper, 2017; Lapkin et al., 2010).

In addition to focusing on the curriculum and CPL, learning planning is also tailored to the needs of clinical practice and the demands of the healthcare job market. Informants emphasized that although the curriculum has been established nationally, the institution continues to address current issues and real-world needs in hospitals, community health centers, and other healthcare facilities. This approach demonstrates a market-responsive curriculum orientation, where input from graduate users and emerging health issues are integrated into learning planning to ensure the curriculum is not rigid. The literature confirms that nursing education that is responsive to healthcare needs will produce graduates who are more adaptive, relevant, and work-ready (Frenk et al., 2010; O'Connor et al., 2021). Overall, the results of this study indicate that learning planning in the Faculty of Nursing has been systematically aligned with the national nursing curriculum, CPL, and clinical practice needs. The AIPNI curriculum serves as the foundational framework, CPL serves as a compass for competency achievement, while clinical practice and job market needs serve as contextual factors that enrich the learning design. This planning pattern reflects a holistic approach to nursing learning management, where adherence to professional standards is combined with flexibility and sensitivity to the dynamics of healthcare. These findings strengthen the position of learning planning as a strategic foundation for producing competent, professional, and work-relevant nursing graduates.

Based on the interviews, information was obtained regarding the challenges frequently encountered in the learning planning stage, as follows:

The biggest challenge facing the current nursing education program planning process is ensuring that students who graduate from Unsrit's nursing program can automatically find employment, whether in private or government institutions, or elsewhere that are willing to accept them as nursing graduates. The current challenge is the numerous healthcare institutions with comparable quality, particularly the Faculty of Nursing and Health Sciences (TA).

The biggest challenge in ensuring effective management within the faculty lies at the root of the problem: the very limited human resources. Meanwhile, the student population is quite large, making it difficult to allocate organizational roles and responsibilities. This lack of human resources is perhaps the biggest challenge, but what are the future plans for the faculty, especially regarding lectures? (BU)

Overall, the learning planning at Unsrit is sound and very effective in bridging the gap between academic theory and the realities of clinical practice, producing graduates who are ready to compete in the workforce. However, the challenges faced in learning planning primarily come from the teaching faculty, as not all lecturers are resident lecturers, meaning some are assigned to other institutions. Furthermore, the students themselves have diverse and varied characteristics. Furthermore, lecture times sometimes do not align with the schedules set by the study program. (KA)

The first challenge, of course, comes from the students themselves. As is well known, not all students are the same. Therefore, a solution is needed to determine the appropriate approach for each student, as each student has a unique personality. Some approaches involve delivering learning materials through lectures, while others can employ hands-on laboratory techniques for practical skills. Ultimately, the biggest challenge lies in the individual abilities of each student and the learning support facilities available. (SO)

The challenge that arises in the learning planning stage comes from the students themselves, as they have varying personalities and attitudes. Furthermore, students who will become future nurses will need not only knowledge but also skills. Moreover, the number of students in a class is quite large, so providing laboratory practicals requires a significant effort. So, I usually focus on assessing the students' abilities, and we also have to adjust the time to the available time and facilities at the faculty. (VB)

A significant challenge in the learning planning stage is the facilities or infrastructure that support learning. Is the room sufficient? It's okay to just have the equipment. Mental health nursing doesn't require a lot of equipment, but for general care, it's usually important to consider the equipment needed, and the relationship to clinical practice activities. In addition, there's also the large number of students in a class. (IW)

The challenge faced by students might be whether they can understand what the lecturer is explaining. Sometimes students simply say yes, but when the lecturer asks a question, they answer no, but after being evaluated in an exam, they find they can't. That's a real big challenge, especially with a large student population. (CE)

The challenge faced by lecturers is especially when students are watching, using their cell phones and not paying attention to the lecturer's presentation. Cell phones distract them. Lecturers are unlikely to confiscate their cellphones to keep them for now. While the learning policy is in effect, cellphones are also useful. Sometimes they look for references, but sometimes they have shifted their focus. They are no longer looking for references, perhaps playing games, and we observe them, and that's what we always do, doing icebreakers again so they can focus on doing or returning to the learning they are currently following. (EM)

The results of this study indicate that the main challenges in nursing education learning planning are multidimensional and interrelated, encompassing external aspects such as competition for graduates in the job market, as well as internal aspects including limited human resources, student characteristics, availability of infrastructure, and the dynamics of technology use in learning. The external challenges identified by informants relate to increasing competition among nursing educational institutions to produce graduates who are quickly absorbed into the workforce. This situation demands learning planning that not only adheres to national curriculum standards but also equips students with superior and differentiated competencies. The literature confirms that in the context of global nursing education, graduate competitiveness is largely determined by the quality of learning planning that is

responsive to the needs of healthcare services and the demands of professional clinical practice (Frenk et al., 2010; O'Connor et al., 2021).

Internally, limited human resources among lecturers pose a significant challenge in the learning planning stage. The results of this study indicate that an unbalanced faculty-to-student ratio and the presence of non-permanent lecturers or lecturers with primary duties at other institutions impact the complexity of organizing learning. This situation affects schedule planning, teaching load distribution, and the consistency of learning implementation according to plan. In nursing education, the adequacy and stability of faculty are crucial factors because learning is not only cognitive but also requires intensive supervision in laboratory and clinical practice. This study shows that limited faculty human resources directly impact the quality of planning and implementation of nursing practice learning (Salminen et al., 2020; Cant & Cooper, 2017).

Another dominant challenge is the heterogeneity of student characteristics, both in terms of academic ability, learning motivation, attitudes, and learning styles. Informants emphasized that nursing students have varying levels of readiness for both theoretical and practical material, making it difficult for faculty to design learning that accommodates all students' needs equally. In the context of learning management, student heterogeneity demands adaptive and differentiated learning planning, but large class sizes often limit this flexibility. The literature confirms that differences in student characteristics are a major challenge in nursing education, especially when institutions must ensure uniform clinical competency achievement across all graduates (Levett-Jones et al., 2018; Benner et al., 2010).

The large number of students in a class also presents a crucial challenge, particularly in courses requiring practicums and laboratory skills. Learning planning must consider time allocation, group assignments, and the intensity of lecturer supervision to ensure each student receives adequate learning opportunities. However, limited lecturer time and resources often force lesson planning to be compromised. This research shows that a high student-to-student ratio in nursing practice courses has the potential to reduce learning effectiveness and increase lecturer workload, so lesson planning must be accompanied by a well-developed mitigation strategy (Lapkin et al., 2010; Cant & Cooper, 2017).

Facilities and infrastructure are also a significant challenge in lesson planning. Informants highlighted that not all nursing fields require the same facilities, but for medical-surgical nursing and general practice, the availability of laboratory equipment and space is an absolute prerequisite. The imbalance between student numbers and facility capacity requires meticulous lesson planning to ensure effective practicums. In nursing education literature, the availability of adequate practice facilities is seen as a determining factor in the success of clinical competency-based learning plans (Cant & Cooper, 2017; Lapkin et al., 2010).

Cognitive and affective challenges for students also emerge in the form of low levels of active participation and a gap between students' perceived understanding and learning evaluation results. Informants described the phenomenon of students verbally expressing understanding but demonstrating low evaluation results. This indicates metacognitive challenges in learning, which should be anticipated during the learning planning stage through formative evaluation design and ongoing feedback strategies. This study confirms that learning plans that do not integrate formative evaluation risk creating a false sense of understanding in students, particularly in nursing education, which demands clinical precision (Genn, 2010; Lavoie et al., 2019).

Furthermore, the use of digital technology, particularly mobile phones, presents new challenges in learning planning. While technology provides quick access to learning resources, it also acts as a distraction that reduces student focus and engagement. This phenomenon demands learning planning that not only prohibits the use of technology but also integrates it pedagogically into learning activities. The literature shows that without clear and structured learning planning, technology use can actually disrupt the learning process, particularly in face-to-face learning and nursing practice (Oducado & Estoque, 2021; Morin, 2020). Overall, the results of this study indicate that the challenges in the learning planning stage of nursing education are complex and interconnected, encompassing aspects of graduate competitiveness, limited human resources, student heterogeneity and number, limited facilities, and the dynamics of technology use. These challenges emphasize that learning planning cannot be understood as a purely administrative activity, but rather as a strategic process that requires contextual analysis, data-driven decision-making, and synergy among stakeholders. These findings reinforce the urgency of strengthening managerial capacity in nursing learning planning so that institutions can produce competent, adaptive, and highly competitive graduates amidst the dynamics of the healthcare system.

Based on the interviews, information was obtained regarding how you assess the effectiveness of current learning planning, as follows:

When evaluating learning and practical theory, the Faculty of Nursing typically conducts monitoring and evaluation. This monitoring and evaluation is carried out in collaboration with the Institute for Nursing Management (LPMI). These evaluations are conducted throughout the semester, at the beginning of each semester, then mid-semester, and at the end of the semester. These evaluations are routinely monitored by the LPMI, both theoretical and practical. (TA)

Evaluations related to mid-semester evaluations and end-of-semester evaluations are available for theory in management. For example, the curriculum, regarding the RPS, is an evaluation of theoretical and practical learning. Therefore, for theoretical learning, there is a collaboration with the LPM. In relation to the MONEF (Monef Evaluation), it is conducted three times per semester: at the beginning, middle, and end. (BU)

The effectiveness of the learning planning implemented so far has been effective. This is seen from the achievement of effective learning objectives and the impact on students. (KA)

Before the material is presented, the lecturer gives a quiz or asks questions about the material. Then, after the material is presented, another quiz or questions are given to assess how well students have understood the course material. (SO)

Usually, students are given monotonous material by their lecturers, which can sometimes make them bored and lose focus. To overcome this, to help students focus, lessons are conducted in the form of videos, followed by discussions between students, making them more active in class and helping them focus. (VB)

Evaluations are usually conducted in relation to the learning process, which serves as input for the faculty for better control. Regarding evaluation data, lecturers usually review the results of monitoring and evaluation. I personally have methods that I apply: lectures, discussions, case studies, and quizzes. I usually start the class with questions. Because I've already given the topic the day before, students are prepared and have a general idea of the evaluation. (IW)

The most effective evaluation is discussion. And providing videos is also good because students might prefer animation. I mean, if you show a video, 'Oh, it turns out this is how it is,' because with just a lecture, students have a hard time visualizing the material. If you explain it through videos, students can see, 'Oh, it turns out this is how it is in class.' Lecturers also assess students' understanding of the lesson and their focus on the material and the lecturer. If they see students giving evaluation statements like this, it seems like the lecturer's self-evaluation indicates a lack of attention. (CE)

In each meeting, lecturers usually begin the lesson by appointing a person in charge of the course. During each face-to-face meeting, lecturers offer positive affirmations, motivating students to learn. This encourages students to learn enthusiastically during the meeting. However, when students begin to divert their attention to their phones or other things during the learning process, the lecturer uses an icebreaker to refocus the students' attention, bringing them back to the topic being discussed or the lesson. At the end of the lesson, lecturers always express appreciation to students in various ways, making the learning process more lively. (EM)

The results of this study indicate that lecturers assess the effectiveness of learning planning through a combination of structured institutional evaluation mechanisms and pedagogical reflection at the classroom level. At the institutional level, the effectiveness of learning planning is systematically evaluated through monitoring and evaluation (M&E) activities conducted periodically each semester, at the beginning, middle, and end of the semester, involving the Internal Quality Assurance Institute (LPMI). This tiered evaluation pattern reflects the implementation of an internal quality assurance cycle that positions learning planning as an integral part of the academic quality control system. In the literature on higher health education, this type of ongoing evaluation is seen as an indicator of an institution that has consistently implemented a quality assurance cycle, where planning effectiveness is assessed based on the alignment between planning, implementation, and learning outcomes (Harvey & Williams, 2010; O'Connor et al., 2021).

In addition to institutional evaluation, lecturers also assess the effectiveness of learning planning through the achievement of learning objectives and their impact on students. Informants stated that learning planning is considered effective if course learning outcomes are achieved and students demonstrate development in understanding, skills, and positive learning attitudes. This approach aligns with the outcome-based education paradigm, which places the achievement of learning outcomes as the primary measure of successful learning planning. In the context of nursing education, the success of learning planning is measured not only by student graduation but also by their readiness to apply knowledge and skills in clinical practice (Biggs & Tang, 2011; Fukada, 2018).

At the classroom level, instructors assess the effectiveness of planning through ongoing formative evaluations, such as pre- and post-presentation quizzes, discussions, and case studies. This practice demonstrates that instructors use formative assessment as a tool to gauge the extent to which learning planning facilitates students' learning processes over time. In the literature, formative assessment is viewed as a key component of effective learning planning because it provides immediate feedback for instructors and students to make adjustments throughout the learning process (Genn, 2010; Lavoie et al., 2019).

The results of this study also revealed that lecturers assessed the effectiveness of lesson plans based on the level of student engagement and focus during the learning process. When lectures were deemed ineffective and causing student boredom, lecturers made adjustments by utilizing video media, interactive discussions, and animations. This demonstrates that lecturers do not view lesson plans as static documents, but rather as flexible pedagogical designs that can be adapted to classroom dynamics. This study demonstrated that the conscious use of active and multimodal learning strategies significantly contributed to increased engagement and understanding among nursing students (Cant & Cooper, 2017; Oducado & Estoque, 2021).

The effectiveness of lesson plans was also assessed through lecturers' self-reflections on student responses. Informants stated that when students appeared unfocused, passive, or demonstrated learning outcomes that did not meet expectations, these were seen as signals for lecturers to conduct self-evaluations of their lesson plans and strategies. This reflective approach reflects the practice of reflective teaching, which in nursing education is considered essential for maintaining the relevance and quality of learning amidst student heterogeneity and the complexity of clinical material (Benner et al., 2010; Lavoie et al., 2019).

Furthermore, lecturers assess the effectiveness of lesson plans through the classroom atmosphere and pedagogical interactions created. Positive affirmation practices, icebreakers, managing student focus, and providing appreciation at the end of the lesson are seen as indicators that the lesson plan has considered the affective and motivational aspects of students. In nursing education, the affective dimension plays a crucial role because learning aims not only to develop technical competencies but also professional attitudes, empathy, and nursing ethics. The literature confirms that lesson plans that integrate cognitive, affective, and social aspects will result in more meaningful and sustainable learning experiences (Levett-Jones et al., 2018; Frenk et al., 2010).

Overall, the study results indicate that lecturers assess the effectiveness of lesson plans through a holistic and multi-layered approach. Effectiveness is measured not only through adherence to the RPS and the results of institutional monitoring and evaluation, but also through the achievement of learning objectives, student engagement, the quality of classroom interactions, and lecturers' pedagogical reflections. These findings confirm that in nursing education, the effectiveness of learning planning is the result of synergy between the institutional quality assurance system and lecturers' pedagogical competence in translating learning plans into vibrant and meaningful learning practices.

Discussion

Learning planning is a fundamental component of educational management, determining the direction, structure, and quality of the teaching and learning process. Interviews with various sources at the Faculty of Nursing describe learning planning as a series of systematic activities, starting with

the development of the syllabus and Semester Learning Plan (RPS), academic coordination meetings involving lecturers and study programs, and finally establishing a schedule aligned with the competency-based curriculum. The sources emphasized that learning planning is not merely administrative but also pedagogical, and must be rooted in graduate learning outcomes (CPL) and clinical practice needs. This reflects the strategic linking of curriculum objectives to real-world needs, ensuring students master not only theory but also practical competencies relevant to the nursing profession.

Effective planning in the nursing context requires a strong alignment between learning objectives, teaching methods, and systematically designed assessments. International literature on competency-based curriculum planning, such as Outcome-Based Education (OBE), emphasizes the importance of backward-designing curriculum design, starting with determining expected learning outcomes and then formulating appropriate learning and assessment strategies (Outcome-Based Education, 2025). OBE has become a globally recognized conceptual framework to ensure that learning planning goes beyond simply fulfilling administrative procedures but also produces professionally competent and work-ready graduates. A systematic review in the context of nursing education indicates that OBE positively contributes to improving student competency in both knowledge and clinical skills, reinforcing the role of outcomes-based planning in healthcare professional learning (The Effectiveness of Outcome-Based Education on the Competencies of Nursing Students, 2018). This finding aligns with interviews that demonstrated that CPL-based planning and regular review with lecturers and stakeholders are crucial to ensuring curriculum relevance.

Furthermore, learning planning involves a comprehensive needs analysis for resources, laboratory facilities, and faculty readiness to implement diverse learning strategies, such as active learning. An international review of learning strategies in nursing education notes that active learning methods such as simulations, case studies, and group discussions effectively increase student engagement and the achievement of planned learning outcomes (Scoping Review of Active Methodologies, 2024). This reinforces the importance of planning not only in establishing a Learning Plan (RPS) but also in selecting appropriate pedagogical methods tailored to student characteristics and professional competency requirements.

Overall, effective learning planning in higher education, particularly in nursing, is a holistic and integrated process. It focuses not only on document administration but also on constructive alignment between learning objectives, instructional strategies, assessments, and the context of professional practice. Systematic implementation of OBE-based planning can help faculty develop curricula that are adaptive to the changing needs of the healthcare industry and capable of producing graduates who meet national and international standards (Bibliometric Analysis of Outcome-Based Education in Higher Education, 2025). This entire process needs to be supported by faculty training and ongoing institutional reflection to bridge the gap between learning planning and implementation.

CONCLUSION

This study concludes that the learning planning management at the Faculty of Nursing, Sariputra Indonesia University, Tomohon, has been implemented systematically, collaboratively, and based on

the AIPNI competency curriculum, with the Semester Learning Plan (RPS) as a central instrument in ensuring alignment between graduate learning outcomes (CPL), learning strategies, and evaluation. The findings indicate that the planning function does not stand alone, but is integrated within the academic management cycle involving study programs, lecturers, faculty leaders, and internal quality assurance units through periodic monitoring and evaluation mechanisms. This practice reflects the application of the principle of constructive alignment, where learning objectives, methods, and assessments are coherently designed to support the achievement of professional competencies. The structured integration of theoretical, laboratory, and clinical practice learning also strengthens the development of clinical reasoning and student practice readiness, in line with international findings that integrated learning design contributes significantly to improving clinical competence and self-confidence in nursing students. However, this study also identified that the effectiveness of learning planning is still influenced by contextual factors, such as limited lecturer resources, a high student ratio, and the availability of practice facilities. This confirms that the quality of planning is not only determined by the completeness of the curriculum documents, but also by the institutional capacity to implement and control the learning process continuously. Therefore, the main contribution of this study lies in strengthening the learning planning management model based on management functions that place planning as a strategic foundation in the quality improvement cycle of nursing education. Theoretically, this finding expands the discourse on the relationship between academic management and clinical competency achievement; practically, the results of this study provide implications that nursing educational institutions need to strengthen the integration of planning, implementation, and evaluation within the internal quality assurance framework to be able to produce graduates who are competent, adaptive, and relevant to the needs of the health care system.

REFERENCES

Al-Omari, E. (2024). Innovative curriculum development: embracing competency-based approaches in nursing education. Teaching and Learning in Nursing.

Alsadi, M. (2025). Optimising educational practices in simulation-based undergraduate nursing education. Nurse Education Today.

Alsharari, A. F. (2025). Effectiveness of virtual clinical learning in nursing education. BMC Nursing. https://doi.org/10.1186/s12912-025-03076-y

Amin, S. M. (2025). Clinical reasoning and decision-making competencies among nurse interns and empathic care outcomes. Nurse Education Today.

Bae, J., Lee, J., Choi, M., et al. (2023). Development of the clinical reasoning competency scale for nurses. BMC Nursing, 22, 138.

Biggs, J., & Tang, C. (2011). Teaching for quality learning at university (4th ed.). McGraw-Hill Education.

Cant, R. P., & Cooper, S. J. (2017). The value of simulation-based learning in pre-licensure nurse education: A state-of-the-art review and meta-analysis. Nurse Education in Practice, 27, 45–62. https://doi.org/10.1016/j.nepr.2017.08.012

El Idrissi, W. E. M. (2021). Assessment practices of students' clinical competences in nursing education. Open Nursing Journal, 15, 47-54.

Ellis, E., Smith, L. N., & Chudleigh, J. (2016). Enhancing nursing students clinical competence: The role of simulation and assessment. Journal of Clinical Nursing, 25(13-14), 1973–1983. https://doi.org/10.1111/jocn.13267

Fan, L., et al. (2016). Competency-Based education and its effect on nursing education. Teaching and Learning in Nursing, 12(2), 117-121. https://doi.org/10.1016/j.teln.2016.11.004

Frank, J. R., Snell, L. S., Cate, O. T., Holmboe, E. S., Carraccio, C., Swing, S. R., Harris, P., Glasgow, N. J., Campbell, C., Dath, D., Harden, R. M., Iobst, W., Long, D. M., Mungroo, R., Richardson, D. L., Sherbino, J., Silver, I., Taber, S., Talbot, M., & Harris, K. A. (2010). Competency-based medical education: Theory to practice. Medical Teacher, 32(8), 638–645. https://doi.org/10.3109/0142159X.2010.501190

Fukada, M. (2018). Nursing competency: Definition, structure and development. Yonago Acta Medica, 61(1), 1–7. https://doi.org/10.33160/yam.2018.03.001

Gunay, U., & Kilinc, G. (2018). The transfer of theoretical knowledge to clinical practice. Nurse Education Today, 65, 81-86. https://doi.org/10.1016/j.nedt.2018.02.031

Harvey, L., & Williams, J. (2010). Fifteen years of quality in higher education. Quality in Higher Education, 16(1), 3–36. https://doi.org/10.1080/13538321003679457

Hong, S., & Lee, Y. (2021). Factors contributing to nursing students' clinical reasoning competence. International Journal of Environmental Research and Public Health.

Jallad, S. T. (2025). Effectiveness of simulation-based education on communication, critical thinking, and confidence in nursing students. Simulation in Healthcare. https://doi.org/10.1177/10784535241301115

Jaye, P. C. (2020). Comparative value of simulation gaming versus traditional teaching in nursing clinical reasoning development. BMC Medical Education, 20, 53.

Koukourikos, K. (2021). Simulation in clinical nursing education: integration of theory and practice. Journal of Clinical Nursing.

Lapkin, S., Levett-Jones, T., Bellchambers, H., & Fernandez, R. (2010). Effectiveness of patient simulation manikins in teaching clinical reasoning skills to undergraduate nursing students: A systematic review. Clinical Simulation in Nursing, 6(6), e207–e222. https://doi.org/10.1016/j.ecns.2010.05.005

Levett-Jones, T., Hoffman, K., Dempsey, J., Jeong, S. Y.-S., Noble, D., Norton, C. A., Roche, J., & Hickey, N. (2018). The 'five rights' of clinical reasoning: An educational model to enhance nursing students' ability to identify and manage clinically 'at risk' patients. Nurse Education Today, 65, 93–99. https://doi.org/10.1016/j.nedt.2018.02.019

Mani, Z. A. (2025). Transitioning to competency-based education in nursing: A scoping review of curriculum review and revision strategies. BMC Nursing, 24, Article 1111. https://doi.org/10.1186/s12912-025-03319-y

Mishra, R. (2023). Simulation-based learning in nursing curriculum. International Journal of Nursing Studies.

Mousavi, S. K., Javadzadeh, A., Hasankhani, H., & Parizad, Z. A. (2025). Relationship between learning styles and clinical competency in nursing students. BMC Medical Education. https://doi.org/10.1186/s12909-024-05432-z

Mukurunge, E., Nyoni, C. N., & Hugo, L. (2025). Context of assessment in competency-based nursing education: Semi-structured interviews in nursing education institutions in a low-income country. Nurse Education Today. https://doi.org/10.1016/j.nedt.2024.106529

O'Connor, S., Zhang, Y., Honey, M., & Lee, J. J. (2021). Digital professionalism on social media: A cross-sectional survey of nursing students. Nurse Education Today, 98, 104728. https://doi.org/10.1016/j.nedt.2020.104728

Robinson, J., Jagiello, K. P., McElroy, L. (2024). Competency-Based Education in RN to BSN Programs. Nurse Educator, 49(4), 195-199. https://doi.org/10.1097/NNE.0000000000001604

Saifan, A. (2021). Managing the theory-practice gap in nursing education and practice in UAE. Journal of Nursing Management.

Shen, M., & Feng, Z. (2024). Continue nursing education: implementation of a training program using Holton Learning Transfer System Inventory. BMC Medical Education, 24, 610. https://doi.org/10.1186/s12909-024-05552-6

Ten Cate, O., & Snell, L. (2013). Understanding medical competence: Time for a change? Medical Education, 47(2), 120–128. https://doi.org/10.1111/medu.12042

Zhou, N., Yang, L., Pan, J., & Lv, K. (2024). Perspectives of clinical nurse educators on competency-based nursing teaching in blended learning environments during nursing internship: A descriptive qualitative study. Nurse Education in Practice, 79, 104027. https://doi.org/10.1016/j.nepr.2024.104027