

Critical thinking, clinical reasoning and shared decision-making: from training to nursing practice

Pensamiento crítico, razonamiento clínico y decisiones compartidas: de la formación a la práctica enfermera

Author:

- **María Isabel Ruiz Moreno**  . Alfonso X el Sabio University. Malaga. Spain.

Autora de correspondencia:

- **María Isabel Ruiz Moreno**  . Alfonso X el Sabio University. Malaga. Spain.
E-mail: mruiiz.salud@gmail.com.

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Contemporary nursing takes place in increasingly complex clinical environments, where nurses face growing demands to deliver safe and humanized care. Preparing professionals for these challenges requires moving beyond pedagogical models based primarily on the transmission of knowledge and moving towards learning experiences that foster critical thinking and clinical reasoning, while also ensuring that these competencies are subsequently transferred to clinical practice and translated into person-centred decisions.

Critical thinking is an essential element of this process. Silitonga et al.¹, in a recent systematic review of intervention studies conducted with nurses and final-year undergraduate nursing students, identified four educational strategies to enhance critical thinking: case-based learning, simulation, reflective strategies and collaborative learning. Their review also shows that these methodologies become more meaningful when their design is consistent with theoretical frameworks, learning environments and organizational conditions. The central question, therefore, is not only how much knowledge is delivered, but how effectively educational experiences enable learners to analyse, question, interpret and apply that knowledge.

Experimental evidence supports this approach. Abdel Fattah et al.² evaluated a scenario-based training programme involving 120 nursing interns divided into an intervention group and a control group. Following the programme, significant improvements were observed in dispositions towards critical thinking, with particularly marked effects on systematicity and analytical ability, as well as a considerable increase in knowledge. Some of these differences persisted at the three-month follow-up.² Although the sample size, specific study context and the use of self-reported measures warrant caution when generalizing the results, the study provides evidence that placing future nursing professionals in scenarios requiring analysis and decision-making may contribute to the development of cognitive

competencies that are difficult to acquire through exclusively lecture-based teaching.

This issue is particularly relevant because knowing clinical facts does not necessarily translate into sound clinical decisions. Among ICU nurses, Dong et al.³ observed that knowledge of delirium, self-efficacy and clinical reasoning competence were associated with fewer perceived difficulties in providing care. Clinical reasoning also partially mediated the relationships between knowledge, self-efficacy and care-related difficulties. These findings underscore the need for nurses to do more than retrieve information: they must recognize changes, integrate data, establish priorities, anticipate risks and justify interventions.

This clinical reasoning takes on particular relevance in view of the rapid incorporation of artificial intelligence systems into clinical practice. In a recent reflection on AI-assisted electrocardiographic interpretation, Dziewierz⁴ warns that repeatedly delegating cognitive effort to automated tools may encourage cognitive offloading and, in the long term, contribute to “cognitive debt”, understood as a possible erosion of independent judgement skills. Although the article focuses on cardiology and provides no nursing-specific evidence, its approach is relevant to nursing education: AI should augment, not replace, professional reasoning. Training in critical thinking also requires teaching how to compare algorithmic recommendations with clinical data, recognize the limitations of automated outputs and independently justify the final decision.

In this regard, clinical cases and simulation should not be viewed solely as resources for making teaching more engaging. They provide protected and safe spaces in which students can face uncertainty, formulate hypotheses, make mistakes without harming patients, reconsider their decisions and learn from them. To this end, the activity must be accompanied by structured reflection and an orientation towards the thought processes used during problem-solving.

Nevertheless, demonstrating learning immediately after an educational activity is insufficient. The true indicator lies in whether the competencies developed subsequently reach the care setting. Yu et al.⁵ recently explored factors influencing this transfer among nurse anaesthetists. Their findings identified motivation linked to patient safety, self-efficacy and reflective adaptability as facilitators of the clinical application of learning, whereas insufficient realism of the scenarios, insufficiently individualized debriefing, lack of subsequent assessment and limited organizational support were identified as barriers.

Although this study was conducted in a specific professional context, its approach raises an essential issue: simulation should be conceived as a part of a process aimed at improving practice rather than as an isolated educational event.⁵ Designing realistic scenarios, accompanying them with debriefing, subsequently assessing the clinical application of what has been learned and having organizations that facilitate change are necessary steps to bridge the gap between training and clinical practice.

The process, however, does not end when nurses are able to make clinically sound decisions. Truly person-centred practice requires relevant decisions to be made with the patient. Elwyn et al.⁶ conceptualize shared decision-making as a collaborative process in which scientific evidence, professional experience and the patient's values, preferences and circumstances converge. Its elements include recognizing vulnerability and power asymmetries, explicitly inviting participation, clarifying the person's goals, facilitating deliberation and providing guidance when decisions are difficult.

From this perspective, critical thinking, clinical reasoning, transfer of learning and shared decision-making form part of the same professional continuum. Thinking critically enables analysis and questioning; reasoning clinically enables the interpretation of complexity and the selection of alternatives; transfer of learning enables training gains to be converted into real changes in practice; and shared decision-making enables that knowledge to be integrated with what truly matters to the person receiving care.

Nursing education should consequently move towards integrated educational models that combine clinical cases, simulation, structured reflection and collaborative learning to foster critical thinking and clinical reasoning. Assessment should focus not only on the immediate acquisition of knowledge, but also on its retention over time and its transfer to clinical practice. Communication skills that encourage meaningful patient participation in health-related decisions should be developed.

Ultimately, excellence in nursing depends not only on how much professionals know, but also on how they analyse what they know, how they respond to uncertainty, how they turn learning into clinical action and how they involve patients in decisions affecting their care. Transforming training into critical thinking, critical thinking into clinical reasoning and clinical reasoning into safe, reflective and shared practice represents one of the major challenges facing nursing today. The incorporation of AI reinforces rather than diminishes this requirement: its value will depend on its use to support clinical judgement without displacing nurses' responsibility or cognitive autonomy.⁴

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