Clinical judgment: The last frontier for evaluation

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ABSTRACT

Nursing educators and preceptors often find it difficult to evaluate prelicensure students' clinical judgment development. Clinical judgment is critical to excellent patient care decisions and outcomes. The Lasater Clinical Judgment Rubric, a validated, evidence-based clinical judgment rubric, is described as a tool that offers a common language for students, nurse educators, and preceptors and a trajectory for students' clinical judgment development. The rubric has been used to provide feedback for reflective journals and a means for self-evaluation in addition to a guide for formulating higher level thought questions to shape students' thinking like a nurse.

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As the acuity of hospitalized patients and the prevalence of chronic illness increase, so does the need for nurses who are able to make excellent clinical judgments that support the complex care needs of patients and contribute to optimal patient outcomes. In the recent past, educators at both schools of nursing and practice agencies have recognized that new graduates often lack the needed clinical thinking to meet the challenges of practice (del Bueno, 2005; Gillespie and Paterson, 2009; Newton and McKenna, 2007). Many hospitals in some countries, such as Australia, have instituted a yearlong graduate program, a kind of internship (Newton and McKenna, 2009); agencies in other countries like the U.S. have responded to the need by using expensive assessment tools to plan lengthy orientation programs, utilizing costly human and institutional resources to assist new registered nurses transition more fully into the workplace. One might ask, are there ways to educate nurses so they are better prepared to transition into practice? How can academe and clinical partners foster better clinical thinking?

The first aim of this paper is to briefly describe an evidence-based clinical judgment rubric that presents dimensions of clinical judgment as trajectories for prelicensure student development toward thinking like a nurse. Second, this paper delineates formative evaluation strategies for using the rubric's dimensions to provide feedback for students' clinical judgment development. Last, the paper identifies opportunities for further education research to uncover elements of student learning that may better support clinical judgment development.

Literature background

For at least three decades, educators have valued critical thinking as an important characteristic for nurses. Recently, critical thinking was an identified nursing program criterion for accreditation in the U.S. despite the lack of a clear definition (AACN, 1998; Martin, 2002; NLNAC, 2000). Few would argue that a critical thinking perspective for evaluation of issues as a generalized characteristic is one hallmark of an engaged citizenry (Brookfield, 1987). However, a literature search failed to identify an agreed-upon definition of critical thinking in nursing or nursing education or a consistently effective way to measure it (Adams, 1999; Allen et al., 2004; Chau et al., 2001; Gordon, 2000; Staib, 2003; Tanner, 2005; Thompson and Rebeschi, 1999; Videbeck, 1997). In addition, there has been no demonstrated relationship between critical thinking and patient outcomes (Fesler-Birch, 2005).

Perhaps the most evidence-based effort to define critical thinking in nursing was made by Scheffer and Rubenfeld (2000), using a Delphi process with international respondents. However, subsequent papers (Scheffer and Rubenfeld, 2006; Tanner, 2005) acknowledged the failure of the profession to fully embrace the definition, leaving the term as more of a catch-all that nursing educators may relate to but lacking a discreet meaning for student understanding or discussions with educators.

An Institute of Medicine (1999) landmark report, indicating thousands of patients were dying of preventable causes in acute care settings, launched a plethora of U.S. safety and quality improvement initiatives, including The Joint Commission's National Patient Safety Goals (2010), applicable to a wide variety of care contexts, and Quality and Safety Education for Nurses (Cronenwett et al., 2007) focused on professional preparation. This

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heightened attention to patient safety is critical for improved patient outcomes but adds complexity to nurses' work. Recent research in acute care settings uncovered that increasingly complicated processes and environmental issues demand that nurses continually rearrange the stack of priority patient care issues, requiring clinical judgments (Ebright, 2004; Ebright et al., 2003).

Tanner (2006) defined clinical judgment as "an interpretation or conclusion about a patient's needs, concerns, or health problems, and/or the judgment to take action (or not), use or modify standard approaches, or improvise new ones as deemed appropriate by the patient's response" (p. 204). According to clinical judgment research, nurses' judgments do not follow a linear pattern nor are they strictly based in cognitive understanding. Rather, they are fluid, using a variety of ways of knowing, including theoretical knowledge, as well as that gained from experience (Benner et al., 2009). In any clinical situation, what captures the nurse's attention, or stands out as salient, depends both on the particular context and on what the nurse brings to the situation–deep knowledge, relationship with the patient, understanding of individual patient's concerns, and what the nurse holds as excellent nursing care (Benner et al., 2009).

A recent in-depth study of professional preparation of nurses in the U.S., sponsored by the Carnegie Foundation for the Advancement of Teaching, identified a need for nursing educators to make clearer linkages between theory content and clinical practice. Of the four major recommendations from the study, three directly related to better integration of theory and clinical teaching (Benner et al., 2010). For example, one of the recommendations encouraged nursing educators to emphasize teaching for "a sense of salience, situated cognition, and action in particular" (p. 82) in ever-changing patient cases in complex healthcare environments. Those nurses who precept students and new grads need a similar focus in their work with students (McNiesh, 2007).

Thus, nursing educators and preceptors, who work closely with prelicensure students, have their work cut out for them to prepare students for practice. According to the literature, a major role of nursing educators and clinical preceptors is to facilitate learning and evaluation of skills and competencies that prelicensure students need, such as: psychomotor skills or skilled knowhow; formation of professional identity, including ethical comportment; and the development of clinical judgment, that is, the marriage of knowledge and practical experience (Benner et al., 2010; Myrick, 2005; Profetto-McGrath et al., 2004). Other studies indicated that preceptors play a pivotal role in students' development by virtue of their relationships with students (Myrick and Yonge, 2002), their considerable practical experience and wisdom (Billay and Myrick, 2008; Myrick et al., 2010), and their validation of what students learn in the classroom (Benner et al., 2010; Brody et al., 2003). These factors place preceptors in a logical and crucial position to support student learning and the development of clinical judgment.

Lasater Clinical Judgment Rubric

In order to consider how nursing educators and preceptors can better assist prelicensure students to develop their clinical judgment, Lasater (2007a) used Tanner's interpretive model of clinical judgment (2006) as a framework for a rubric. The rubric offers language that describes dimensions of clinical judgment that form trajectories for student development. According to Stevens and Levi (2005), rubrics offer some advantages that are directly related to fostering learning toward clinical judgment development. For example, they facilitate communication through clearly expressed outcomes. Additionally, they have the potential to help nursing educators focus their teaching and promote scholarly thinking by

giving a common language for students, preceptors, and nursing educators to use. In so doing, rubrics facilitate constructive and understandable feedback and growth.

The aspects of the Tanner Model describe Noticing, Interpreting, Responding, and Reflecting. These aspects formed the conceptual framework for a mixed methods study to explore the impact of high-fidelity simulation on clinical judgment development in prelicensure students. Forty-seven nursing students in their first adult acute care nursing course comprised the participants in the study. They were observed in 53 simulation scenarios, focused on particular patient care situations, requiring them to make clinical judgments. Data from the scenarios and debriefings as well as a focus group (Lasater, 2007b) formed the basis for the dimensions that further described Noticing, Interpreting, Responding, and Reflecting in the Lasater Clinical Judgment Rubric (LCJR). For each phase of the Tanner Model, the rubric details several dimensions; for example, the Noticing phase includes three dimensions: Focused Observation, Recognizing Deviations from Expected Patterns, and Information Seeking. Near the end of the study, the scoring potential of the rubric was tested with students in simulation scenarios and the language refined (Lasater, 2007a).

In addition, the rubric describes four levels of development for each dimension (see Table 1): Beginning, Developing, Accomplished, and Exemplary. The expectation in our program is that prelicensure students should reach the Accomplished level by the end of the program; however, given the diversity of students' experience prior to nursing programs, Lasater (2007b) identified that many students transfer competence achieved in different professions, such as clear communication, to nursing and may even be proficient at the Exemplary level by end of program. In addition, by having an Exemplary level, students begin to appreciate the lifelong learning nature of nursing and can understand the next steps for their development.

As a rating tool, the rubric has been used for research purposes (Blum et al., 2010; Dillard et al., 2009; Gubrud-Howe, 2008; Lasater, 2007a; Lasater and Nielsen, 2009; Mann, 2010; Sideras, 2007). The Gubrud-Howe and Sideras studies provided psychometric validation and reliability data for the rubric. Others have applied the Tanner Model and LCJR to develop additional strategies to evaluate students' clinical judgment.

Strategies to evaluate learning fostering clinical judgment

One of the challenges for preceptors and nursing educators is that of formatively evaluating students' thinking and helping them to develop their expertise in clinical judgment. Formative clinical evaluation offers feedback and a direction for improvement and further development (Oermann and Gaberson, 2009). The LCJR serves as a tool to help educators and preceptors foster the development of clinical judgment. Through the dimensions and level descriptions, the rubric provides language for students, nursing educators, and preceptors to discuss a complex but critical topic. As thinking is not always explicit in student actions, a common language can be useful to elicit and evaluate students' current level of clinical judgment and set goals for continued development. The common language also provides a means for reflection, self-evaluation, and formulating higher level questions. Major emphasis in this paper is on formulating thought questions that help faculty evaluate and foster students' clinical thinking while two of these strategies–reflective journaling and self-evaluation–are described briefly.

Formulating thought questions

Preceptors and nursing educators have frequent and spontaneous opportunities for development and evaluation of clinical

Table 1
Lasater Clinical Judgment Rubric.

	Exemplary	Accomplished	Developing	Beginning
Effective Noticing involves: Focused observation	Focuses observation appropriately; regularly observes and monitors a wide variety of objective and subjective data to uncover any useful information	Regularly observes/monitors a variety of data, including both subjective and objective; most useful information is noticed, may miss the most subtle signs	Attempts to monitor a variety of subjective and objective data, but is overwhelmed by the array of data; focuses on the most obvious data, missing some important information	Confused by the clinical situation and the amount/type of data; observation is not organized and important data is missed, and/or assessment errors are made
Recognizing deviations from expected patterns	Recognizes subtle patterns and deviations from expected patterns in data and uses these to guide the assessment	Recognizes most obvious patterns and deviations in data and uses these to continually assess	Identifies obvious patterns and deviations, missing some important information; unsure how to continue the assessment	Focuses on one thing at a time and misses most patterns/deviations from expectations; misses opportunities to refine the assessment
Information seeking	Assertively seeks information to plan intervention: carefully collects useful subjective data from observing the client and from interacting with the client and family	Actively seeks subjective information about the client's situation from the client and family to support planning interventions; occasionally does not pursue important leads	Makes limited efforts to seek additional information from the client/family; often seems not to know what information to seek and/or pursues unrelated information	Is ineffective in seeking information; relies mostly on objective data; has difficulty interacting with the client and family and fails to collect important subjective data
Effective Interpreting involves: Prioritizing data	Focuses on the most relevant and important data useful for explaining the client's condition	Generally focuses on the most important data and seeks further relevant information, but also may try to attend to less pertinent data	Makes an effort to prioritize data and focus on the most important, but also attends to less relevant/useful data	Has difficulty focusing and appears not to know which data are most important to the diagnosis; attempts to attend to all available data
Making sense of data	Even when facing complex, conflicting or confusing data, is able to (1) note and make sense of patterns in the client's data, (2) compare these with known patterns (from the nursing knowledge base, research, personal experience, and intuition), and (3) develop plans for interventions that can be justified in terms of their likelihood of success	In most situations, interprets the client's data patterns and compares with known patterns to develop an intervention plan and accompanying rationale; the exceptions are rare or complicated cases where it is appropriate to seek the guidance of a specialist or more experienced nurse	In simple or common/familiar situations, is able to compare the client's data patterns to those known and to develop/explain intervention plans; has difficulty, however, with even moderately difficult data/situations that are within the expectations for students, inappropriately requires advice or assistance	Even in simple of familiar/common situations has difficulty interpreting or making sense of data; has trouble distinguishing among competing explanations and appropriate interventions, requiring assistance both in diagnosing the problem and in developing an intervention
Effective Responding involves: Calm, confident manner	Assumes responsibility: delegates team assignments, assess the client and reassures them and their families	Generally displays leadership and confidence, and is able to control/calm most situations; may show stress in particularly difficult or complex situations	Is tentative in the leader's role; reassures clients/families in routine and relatively simple situations, but becomes stressed and disorganized easily	Except in simple and routine situations, is stressed and disorganized, lacks control, making clients and families anxious/less able to cooperate
Clear communication	Communicates effectively; explains interventions; calms/reassures clients and families; directs and involves team members, explaining and giving directions; checks for understanding	Generally communicates well; explains carefully to clients, gives clear directions to team; could be more effective in establishing rapport	Shows some communication ability (e.g., giving directions); communication with clients/families/team members is only partly successful; displays caring but not competence	Has difficulty communicating; explanations are confusing, directions are unclear or contradictory, and clients/families are made confused/anxious, not reassured
Well-planned intervention/flexibility	Interventions are tailored for the individual client; monitors client progress closely and is able to adjust treatment as indicated by the client response	Develops interventions based on relevant patient data; monitors progress regularly but does not expect to have to change treatments	Develops interventions based on the most obvious data; monitors progress, but is unable to make adjustments based on the patient response	Focuses on developing a single intervention addressing a likely solution, but it may be vague, confusing, and/or incomplete; some monitoring may occur
Being skillful	Shows mastery of necessary nursing skills	Displays proficiency in the use of most nursing skills; could improve speed or accuracy	Is hesitant or ineffective in utilizing nursing skills	Is unable to select and/or perform the nursing skills
Effective Reflecting involves: Evaluation/self-analysis	Independently evaluates/analyzes personal clinical performance, noting decision points, elaborating alternatives and accurately evaluating choices against alternatives	Evaluates/analyzes personal clinical performance with minimal prompting, primarily major events/decisions; key decision points are identified and alternatives are considered	Even when prompted, briefly verbalizes the most obvious evaluations; has difficulty imagining alternative choices; is self-protective in evaluating personal choices	Even prompted evaluations are brief, cursory, and not used to improve performance; justifies personal decisions/choices without evaluating them
Commitment to improvement	Demonstrates commitment to ongoing improvement: reflects on and critically evaluates nursing experiences; accurately identifies strengths/weaknesses and develops specific plans to eliminate weaknesses	Demonstrates a desire to improve nursing performance: reflects on and evaluates experiences; identifies strengths/weaknesses; could be more systematic in evaluating weaknesses	Demonstrates awareness of the need for ongoing improvement and makes some effort to learn from experience and improve performance but tends to state the obvious, and needs external evaluation	Appears uninterested in improving performance or unable to do so; rarely reflects; is uncritical of him/herself, or overly critical (given level of development); is unable to see flaws or need for improvement

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judgment through asking questions of students that require them to think more deeply. High level questions in a learning environment promote students' thinking at deeper levels (Oermann, 2008). The context for asking these questions can vary. For example, it may be in the actual clinical practicum setting one-on-one with a student or during a class or clinical postconference with others. Educators have identified that debriefing following simulation experiences is the critical learning point in simulation (Cantrell, 2008; Dreifuerst, 2009; Lasater, 2007b), but well-devised thought questions can facilitate students' thinking and learning in any setting.

Nursing educators and preceptors need to ask open-ended higher-level questions in order to stimulate thinking and help students make connections between their theoretical knowledge and their clinical thinking/actions (Benner et al., 2010; Oermann, 2008). Higher-level questions cannot be answered through recall or factual memorization; rather, they require analysis, synthesis, and evaluation (Oermann, 2008). In one study, the questions asked by nursing educators during postconferences were analyzed to determine whether they were low level or high level questions. In fact, the study revealed that only 4.1% of the questions in seminars were high level (Profetto-McGrath et al., 2004). These data were similar to an earlier study that found 90% of questions asked by nursing educators were at a low level (Sellappah et al., 1998).

While nursing educators and preceptors recognize the importance of asking higher level questions to stimulate thinking (Myrick and Yonge, 2002), they may find it difficult to pose questions that will catalyze the connections between students' knowledge and practice. One study posited reasons why this may be, including the possibility that educators may have a knowledge deficit about how to formulate higher level questions (Profetto-McGrath et al., 2004).

The dimensions of the LCJR offer a logical progression for educators and preceptors to devise questions that guide student thinking about patient care. In other words, questions about each of the rubric's dimensions can help students link what they Notice to what they know from their theoretical knowledge or background (Interpreting) before they intervene (Responding), and then Reflect on the effectiveness of their judgments. In addition, some questions may be asked after a student reveals what they noticed, including their assessment findings, in order to focus the student on the interpretation of information prior to the selection of an appropriate intervention while other questions may assist the student to reflect on the entire judgment.

Table 2 shows the dimensions from the LCJR, linked to four aspects of clinical judgment from the Tanner Model (2006). Some examples of higher level, open-ended questions are offered. Using such a guide, nursing educators or preceptors can tailor the questions to the specific patient and/or care setting. For example, one important Interpreting question may be "What were your priorities in caring for this patient?" Such an open-ended question allows students to clarify their clinical judgments and actions in view of their theoretical knowledge and the patient's needs and then reflect on their thinking.

Reflection

Nursing and other professions have long recognized the value of written reflections in learning (Murphy, 2004; Stevens and Cooper, 2009). Dewey (1933) began the conversation, identifying that only reflective thinking was educative. The demands and pace of the clinical setting and supervision of multiple students by nursing educators and preceptors make verbal reflection difficult during students' patient care time. Reflections written after their clinical practice experiences are a strategy to help students process their experiences and learn from them. Nursing educators have learned that guided reflections are often the best tool to elicit the level of learning students need to develop their thinking for at least two reasons: (a) students vary widely in their ability to be reflective and (b) often, they need guidance to learn what is important to notice to develop their thinking like a nurse (Craft, 2005; Lasater and Nielsen, 2009).

Nielsen et al. (2007) used the Tanner Model and LCJR to create a guided reflective journaling tool, designed to assist students in their development of clinical judgment. Students selected an experience from their clinical practica that required a clinical judgment by them or someone they observed; they then analyzed the thinking behind the judgment, using the guide. Nursing educators read the journals in order to develop formative assessments of students' thinking rather than to grade them. The feedback responses to students and the conversations that followed often used language from the LCJR to shape students' thinking. These journaling narratives gave nursing educators a different perspective on how well students were integrating their clinical learning and experiences into practice.

Table 2
Examples of questions from the LCJR that stimulate deep thinking and learning.

Tanner model phase	LCJR dimension	Example of a question
Noticing	Focused observation	What did you first notice about the patient?
	Recognizing deviations from expected patterns	What was different than what you expected? Have you seen this before in other patients?
	Information seeking	What other information would be helpful? How can you get that information?
Interpreting	Prioritizing data	How did you prioritize the patient information/data? In other words, what was most important for this patient now?
	Making sense of the data	On what did you base choice of intervention? If intuition, what kinds of data might offer evidence to support your gut feeling?
Responding	Calm, confident manner	What was your approach with the patient? How comfortable did you feel?
	Clear communication	How do you think you gained the patient's trust? What did you say to the patient? to the family member(s)?
	Well-planned intervention/flexibility	What factors, including patient feedback, impacted the treatment plan?
	Being skillful	How did your skill compare to nursing standards of care?
Reflecting	Evaluation/self-analysis	What went well? What didn't go as smoothly as you planned? Why or why not?
	Commitment to improvement	What would you do differently if you had the opportunity?

An important outcome identified from use of the guided reflective journals was that students who were having difficulty with clinical judgment could be identified early and coached more closely in their development. Other outcomes included educators' ability to (a) detect misunderstandings or omissions in student thinking, (b) follow the student's thinking relative to a particular client situation, (c) learn the student's rationales for judgments, and (d) discover students' significant learning episodes. In addition, students reported that the use of the guide and resulting feedback gave them a framework for their own evaluations (Lasater and Nielsen, 2009).

Self-evaluation

Another strategy for developing students' clinical judgment related to reflection is self-evaluation. Descriptions of self-evaluation strategies in the nursing education literature are not frequent; however, higher education has a rich body of literature that is primarily supportive of self-evaluation. Improved self-directedness (Nicol and Macfarlane-Dick, 2006) as well as enhanced personal and professional judgment (Fitzpatrick, 2006), including goal setting (Maclellan and Soden, 2006), were among the cited benefits of self-evaluation. Experiential learning (Marienau, 1999), while comparing performance with standards to direct students' learning and give them comparators (Boud, 1986), sets the stage for self-evaluation using a rubric.

One self-evaluation strategy using the LCJR is very simple for students, preceptors, and nursing educators. Each individual instrumental to the student's learning, including the student, can use a highlighter to mark the words and phrases that best describe the student's current status. This then sets the focus for establishing future learning goals. A variation might use differences among the parties as the basis for a discussion to gain clarity before setting goals.

Another self-evaluation strategy using the LCJR has been used effectively after students engaged in high-fidelity simulation. Students rated their own performances from the scenario, using the LCJR. In addition to evaluating their Noticing, Interpreting, Responding, and Reflecting, students gave rationales for their ratings in a narrative form, using LCJR language, thereby providing nursing educators rich opportunities to understand students' learning and validate it or make corrections in the students' perceptions, using feedback (Cato et al., 2009).

To summarize, authentic formative evaluation depends on clear feedback (Oermann and Gaberson, 2009). Students have indicated they can relate to the Model of Clinical Judgment (Tanner, 2006) and that they desire genuine feedback from preceptors and nursing educators about their clinical thinking and performance (Lasater, 2007b). The LCJR may provide preceptors and nursing educators needed direction to give valuable feedback and for students to map their progress toward higher levels of clinical judgment expertise.

Further research

While there is a robust body of research about clinical judgment (Tanner, 2006), most of it has described the thinking of expert nurses. There have been few studies directly exploring students' development of clinical judgment so there is a pressing need for further research in order to best prepare students for professional practice. Four of them—students' backgrounds that influence what students notice, the role of reflection on clinical judgment development, the need for preceptor training in clinical judgment, and a look at what we in academe can learn in concert with those in practice settings that hire new graduates—are briefly discussed.

What students notice

An important limitation of the Lasater Clinical Judgment Rubric is that it does not account for the individual factors that powerfully influence nurses' noticing—context of care, the individual nurse's background, and her/his relationship with the patient (Tanner, 2006). Because of the interpretive nature of clinical judgment, it is difficult to objectify any part and surely, the evaluation of students' thinking will never be completely objective. In terms of the students' background, there are many potential independent variables that could impact students' noticing. Some of these include ethnic/cultural backgrounds, past experiences with the healthcare system and nurses in particular, as well as individual learning styles (Kolb, 1984). Findings about student background factors that positively influence the acquisition of clinical judgment could effectively impact planning for optimal learning.

The impact of reflection on clinical judgment development

While reflective thinking has been described as educative (Dewey, 1933; Tanner, 2006) and instrumental in coaching and learning (Schön, 1987), its direct impact on clinical judgment development in students needs more attention. For example, we need to know more about the role of guided reflection versus less guided and at what point during prelicensure education, one is more useful than the other. Other questions might include–do students have a different learning experience when relating their learning in written versus oral form? Is debriefing more effective individually with a preceptor or educator or with peers? Narrative pedagogy is a powerful tool that may be useful in eliciting students' deeper reflections (Benner et al., 2009).

Preceptor training and support

Given the important relationship of preceptors to prelicensure students, especially those near the end of their programs, preceptors deserve the training and support commensurate with their responsibility (Luhanga et al., 2010). Most preceptors will not have had clinical judgment education—what it is and how to coach students to develop it—yet they are in a critical position to help students. While there have been many studies about the roles of preceptors, their specific responsibilities relative to clinical judgment development have not been well researched. Benner et al. (2010) advocated for educators to teach for a sense of salience. For preceptors, teaching for salience in practice settings may require them to "think out loud" in order to analyze their clinical judgments for students to gain insight as well formulate thought questions. Preceptors may well be the bridge to partnering between academe and professional care contexts in order to better prepare students for the demands of practice.

Reciprocal learning from students' transition to practice

Joint studies between academic and practice institutions, using clinical judgment dimensions as a guide, have the potential to uncover education gaps prior to practice as well as better support student outcomes in their clinical judgment development. One program designed a transcript to identify competency needs in graduates' psychomotor and clinical judgment skills as a bridge to orientation in the first nursing positions (Roberts et al., 2009). Another clinical agency developed a program to promote clinical judgment of staff nurses at all levels (Marshall et al., 2001). While these may be innovative and helpful solutions, perhaps we need to work together more closely to uncover what factors advance students' clinical judgment in preparation for practice. Partnering in transition research studies

should assist both academic and practice institutions to learn what will facilitate clinical judgment development.

Conclusion

The Royal College of Nursing described nursing as "the use of clinical judgment" (2003, p. 3). As such, it behooves all who have responsibility for students' professional preparation to foster their development of clinical judgment by evaluating their thinking and providing feedback for their growth. This paper has described an evidence-based clinical judgment rubric and offered several strategies using the rubric—formulation of thought questions, reflection, and self-evaluation—for formative evaluation and feedback of students' clinical thinking and judgment in order to support their development. In addition, this paper has made recommendations in several areas for further research to assist students to improved clinical judgment development. Students' transition into practice as nurses, caring for complex patients in complicated environments and systems, depends on education support for their development.

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