Simulated patient deterioration situations reveals taxonomy of the decisions made by nursing students

10.1136/eb-2016-102519

Patrick Lavoie
William F. Connell School of Nursing, Boston College, Chestnut Hill, Massachusetts, USA
Correspondence to Dr Patrick Lavoie, Boston College, William F. Connell School of Nursing, Maloney Hall, 140 Commonwealth Ave, Chestnut Hill MA 02467, USA; Patrick.lavoie@bc.edu

Implications for practice and research

- This study provides a taxonomy of the decisions made by nursing students in patient deterioration simulations that can clarify the expected outcomes of decision-making education.
- The results highlight the influence of knowledge and non-technical skills on student’s decision-making in a team-based context.
- Further research is needed to examine the generalisability of this taxonomy and evaluate the effectiveness of different approaches to teaching decision-making.

Commentary

This was a descriptive study of decisions by nursing students in patient deterioration simulations. Students appeared vulnerable to cognitive biases, such as fixation on a single piece of data and reliance on recent examples when approaching new situations. The responses of the students to the simulations did not reflect high levels of teamwork, leadership, communication or other non-technical skills important to patient safety. Taken together, the findings were consistent with the existing body of literature on healthcare professionals’ decision-making.

The results provide insights into the challenges nursing students face when confronted with patient deterioration and offer guidance for setting more precise goals for educational strategies. This study also raises important questions about the effectiveness of current educational strategies in terms of fostering decision-making and addressing common biases and errors. While existing evidence does not support the effectiveness of training for the recognition of cognitive biases, there remains a need for educators to be aware of those possible biases and to help students avoid these pitfalls in clinical reasoning. Moreover, the study highlights the critical importance of targeting the development of interpersonal skills in designing educational strategies to improve student decision-making and patient safety.

Future research should validate the taxonomy in other settings and examine the extent to which the decisions are elicited by patient safety scenarios beyond patient deterioration simulations. It appears necessary to determine if this taxonomy applies to students at different levels in their training, as well as practicing nurses at different levels of experience. If validated, this taxonomy could serve as a framework for the development and evaluation of instructional strategies and stimulate new research in this field.

Competing interests None declared.

Provenance and peer review Commissioned; internally peer reviewed.

References

1. Fisher D, King L. An integrative literature review on preparing nursing students through simulation to recognize and respond to the deteriorating patient. J Adv Nurs 2013;69:2375–88.
2. Blumenthal-Barby JS, Krieger H. Cognitive biases and heuristics in medical decision making: a critical review using a systematic search strategy. Med Decis Making 2015;35:539–57.
3. Gordon M, Darbyshire D, Baker P. Non-technical skills training to enhance patient safety: a systematic review. Med Educ 2012;46:1042–54.
4. Norman GR, Monteiro SD, Sherbino J, et al. The causes of errors in clinical reasoning: cognitive biases, knowledge deficits, and dual process thinking. Acad Med 2016;92:213–30.