

Session 6.2 Education Track

Abstract Title:

Development of Valid and Reliable Case Studies for Teaching Diagnostic Reasoning and Other Purposes

Presenter:

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Intended Audiences:

Educators, Clinicians, Informaticists, Administrators, Researchers

Areas of Focus:

Critical Thinking, Research, Use in Practice, Use in Education, Linking or Integrating Nursing Language

Research Format:

For Non-Research Reports

TOPIC: The author will explain how to develop valid and reliable written case studies for the education of nurses to develop thinking skills for diagnostic accuracy.

BACKGROUND: The findings from cognitive science research show that successful use of critical thinking processes for decision making only occurs when thinking processes are integrated with knowledge domains and students have repeated experiences with the use of thinking in relation to the knowledge domain. These evidence-based conclusions of cognitive scientists indicate that the use of case studies to teach diagnostic reasoning would be an effective way to give nurses the repeated experiences that they need to become proficient diagnosticians. Case studies are simulations of patients' stories that enable nurses to practice diagnostic reasoning with specific nursing diagnoses.

DESCRIPTION: Good case studies are difficult to develop because human responses are complex and case studies are criterion-referenced tools that are used as measures of human responses. As tools, the goal of case study development is to strengthen the link between knowledge and application. Nurses learn about various abstract concepts, but these concepts are difficult to apply. A goal of case study development is to reduce ambiguous, abstract ideas to concrete behavioral indicators. Use of good case studies enables educators, practitioners, and researchers to simulate real applications of the concepts.

The validity and reliability of case studies needs to be addressed. One way to do this is to base case study development on actual clinical cases. Strategies to ensure the validity and reliability of these criterion-referenced tools will be addressed based on principles of measurement. The process of developing case studies will be reduced to seven steps that will be explained and examples given. These are to (1) identify the overall purposes, (2) specify the objectives, (3) decide on the complexity, (4) obtain literature sources and nurse experts to support validity, (5) formulate the case studies, directions, and scoring manual, (6) obtain content validity ratings from experts, and (7) evaluate the case studies with a pilot test.

CONCLUSIONS: Many valid and reliable case studies are needed to educate nurses for successful use of diagnostic reasoning. As learning or testing tools, case studies should be developed in systematic ways so that they generate appropriate thinking processes that can also be applied in clinical settings.

Citations:

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- Lunney, M. (2006). Helping nurses to use NANDA, NOC and NIC: Novice to Expert. *JONA*, 36(3), 1-8.
- Levin, R., Lunney, M. & Krainovich-Miller, B. (2005). Improving diagnostic accuracy using an evidenced-based nursing model. *International Journal of Nursing Terminologies and Classifications*, 15(4), 114-122.
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