

Chapter 62

Problem-Based Learning in Transformative Nursing Education

Renee Yarbrough-Yale
John Peter Smith Hospital, USA

ABSTRACT

The purpose of this chapter is to identify the components and the use of problem-based learning in a transformative nursing education environment. A problem-based learning environment provides adult learners the opportunity to work through realistic problems they may encounter in their clinical environment. Through the use of ill-defined problems, adult learners identify what is known, what is not known, and what needs to be known in order to solve problems. In this style of education, adult learners build upon their own knowledge base in order to solve these problems. This type of learning environment places educators in a unique position to assess the problem solving and critical thinking skills of students and provide feedback as needed.

INTRODUCTION

The theory of transformative learning was introduced in 1978 by Jack Mezirow. This theory described learning as more than just the acquisition of facts and ideas. Mezirow suggested learners identify their own limitations of knowledge and grow beyond them (O'Connell, 2010). Through the use of problem-based learning (PBL), adult learners build upon their current knowledge base by working through ill-defined problems or situations they could encounter in clinical practice. Educators, rather than answering questions, skillfully use questions, much the same as Socrates, to guide learners in the practice of problem solving and critical thinking.

In 2009, the Carnegie Foundation for the Advancement of Teaching released a report, *Educating Nurses: A Call for Radical Transformation* (Benner, Sutphen, Leonard & Day, 2009). The following year, the Institute of Medicine (IOM) and the Robert Wood Johnson Foundation (RWJF) released a report

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on the *Future of Nursing: Leading Change, Advancing Health*. Both of these reports bring attention to the need for new approaches to strengthen nursing education and nursing practice (Mundt, Clark & Klemczak, 2013).

In the IOM and RWJF report (2011), it was noted nursing education developed during the 20th century is no longer adequate for dealing with the realities of health care in the 21st century (p. 2). According to Benner et al. (2010), “redesigning nursing education is an urgent societal agenda” (p.16). Health care continues to undergo significant change, and in order to keep pace, nursing education and nursing practice must undergo significant change (Benner et al., 2009, p.16). As a result, a change of this nature would only improve patient care and patient outcomes through higher-level nursing education and nursing preparation. Sophisticated and complicated life-saving technologies allow nurses to care for increasingly sicker patients. The care of these patients requires clinical decisions that utilize higher-level critical thinking and clinical reasoning skills. In order for nursing students to acquire these skills, nursing education and preparation must focus on knowledge application rather than on knowledge acquisition. Nursing programs must adapt as the technology utilized to care for patients advances. The use of these technologies requires additional skills in order to analyze and synthesize the data now available during the care of patients. The development of care management knowledge and decision-making skills dictates that competencies move from basic task-oriented skills to higher-level application and reasoning skills (IOM, 2010).

In order to care for patients, “nurses need multiple ways of thinking, such as clinical reasoning and clinical imagination as well as critical, creative, scientific, and formal criterial reasoning” (Benner et al., 2009, p. 85). The ability to reason as a clinical situation changes is termed “clinical reasoning.” Clinical reasoning helps nurses assess current patient conditions and plan for changes in those conditions and complexities of care. The ability of nurses to understand and anticipate patient needs as they change over time is “clinical imagination” (Benner et al., 2009, p. 85). However, critical thinking remains the foundation for clinical reasoning and decision making (Raterink, 2012).

THE CONCEPT OF CRITICAL THINKING IN NURSING

The first attempt to integrate critical thinking as a basic element of the nursing process dates back to the 1930s where it was first proposed by Urch and then by Beck. It became an official competency requirement for nursing students in the 1980s (Raterink, 2012). Since that time, it has been widely accepted that positive outcomes in nursing education, nursing practice, and, in effect, patient outcomes are linked to critical thinking (Burrell, 2014).

Over the last 20-plus years, there has been much debate and research over the concept of critical thinking (Burrell, 2014). In 1996, Facione and Facione, a psychologist and nurse team, recognized that all practice based professions utilized critical thinking in the development of knowledge and professional judgment (Raterink, 2012). Burrell (2014) cites several scholars who have linked the importance of critical thinking to positive outcomes in nursing practice and education:

- Walthew recognized that “nursing students’ awareness and decision-making skills” were enhanced through the use of critical thinking (p. 53).
- Walsh and Seldomridge recognized that quality of care improved through the use of critical thinking (p. 53).

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