

# Chapter 18

## A Systematic Review of Competency–Based Education Effort in the Health Professions: Seeking Order Out of Chaos

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### ABSTRACT

*Quality healthcare cannot be achieved without competent health professionals. Competency-based education (CBE) is an educational delivery option that may prove to be effective in meeting that need. Through a systematic literature review using content analysis techniques, this chapter explores the conceptual complexity and operational challenges of using CBE in health professions education. Drawing a picture of how competencies are defined and developed in the context of health professions education, this chapter summarizes current practices of integration, delivery, and assessment of competencies. Challenges, emerging trends, and future research directions are also identified. This review found that, unlike in medical education, there are different sets of competencies for most various healthcare disciplines and sub-disciplines and this review suggests that CBE can be a viable model that will enable health professions education to address the diverse needs of health professionals.*

### INTRODUCTION

In 1996, the Institute of Medicine launched a quality initiative to enhance the quality of healthcare in the United States. Since then, the healthcare industry for the United States has undergone vast changes, including redesigning care delivery systems, implementing innovative financing, forming new health-

DOI: 10.4018/978-1-5225-0932-5.ch018

care acts and policies, and seeking to standardize information technology (Institute of Medicine, 2003). These improvements, however, cannot be achieved without competent health professionals. Equipping a workforce with new skills and new methods of relating to patients and to each other, demands both retraining of current health professionals and preparing those of the future (Interprofessional Education Collaborative Expert Panel, 2011). Furthermore, U.S. accrediting agencies have made changes in their accreditation requirements and review processes. Thus, as the healthcare system itself must be transformed to advance quality in the face of continually increasing demand, so must the health professions education system. In response, innovative and alternative educational methods continue to be explored and evaluated. One promising approach that has witnessed acceleration in its adoption in health professions education over the past decade is competency-based education (CBE). However, as educators in various fields implement CBE, we find a chaotic world. One contributor to this chaos is the fact that the accrediting organizations for different health disciplines, such as healthcare management, nursing, public health, physician assisting, health informatics, and physical therapy, all require different, specific sets of competencies (Gruppen, Mangrulkar, & Kolars, 2012). Another contributing factor is the vast array of educational strategies involved, including didactic courses, clinical training, rotations, and medical simulations. While research studies have been conducted on CBE in K-12 and other higher education settings, there is an absence of literature pertaining to CBE in health professions education.

## **Review Questions**

The purpose of this book chapter is to explore the conceptual complexity and operational challenges of CBE in the health professions. More specifically, we will conduct a review of the literature to answer the following questions:

1. How are the concepts *competency* and *CBE* interpreted within the context of health professions education?
2. What are the current practices of integrating, delivering, and assessing competencies in health professions education?
3. What challenges do educators encounter and what emerging trends were observed?
4. What future research opportunities exist in this field?

## **METHOD**

To answer these research questions, a systematic review of research articles in the relevant literature was conducted, closely following the guidelines for systematic reviews and meta-analysis provided by Moher, Liberati, Tetzlaff, and Altman (2009) and the standards for reporting social science research published by the American Educational Research Association (AERA, 2006).

After an extensive search, the research team first conducted a content analysis to identify publications for further review. A classification system was established to categorize the research articles to enhance reliability and precision of content analysis. Finally, findings are reported after data were extracted and synthesized. Discussions were put into a broader context of health professions education to discuss the implications. Data obtained during this review are also amenable to both future qualitative and quantitative studies.

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