

# The Development of an Evaluation Tool to Measure Nursing Core Curriculum Teaching Effectiveness: An Exploratory Factor Analysis

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## ABSTRACT

**Background:** There have been few evidence-based assessments of nursing education core curricula. To conduct such assessments effectively, researchers need an objective professional tool that addresses the principal competencies of the nursing profession.

**Purpose:** The aim of this study was to develop a preliminary assessment tool to improve teaching effectiveness in nursing core curricula.

**Methods:** This study was divided into four stages: (a) initial questionnaire content proposal, (b) expert validation, (c) random sampling, and (d) item and exploratory factor analysis.

**Results:** We used exploratory factor analysis to analyze three factors, namely (a) learning preparation, (b) advancement of competence, and (c) learning evaluation. These three factors explained, respectively, 43.1%, 12.9%, and 7.5% of total variance; the three together explained 63.5% of total variance. Overall questionnaire reliability was .904. All correlation coefficients displayed moderately positive relationships among subscales.

**Conclusions:** The assessment tool developed in this study showed reliability and validity in the evaluation of teaching outcomes for nursing core curricula.

## KEY WORDS:

nursing core curricula, teaching evaluation, core competencies, item analysis, exploratory factor analysis.

& Cannon, 2009; Shih, 2009), and assessment comprises a range of scientific methods for evaluating learning. In analyzing such assessments, one must consider teaching objectives as well as student performance (Chin, 2010; Jeng & Hwang, 2009). It is crucial that learning outcomes be evaluated objectively to improve the quality and efficacy of teaching methods.

Effective teaching assessment methods must be implemented in conjunction with objective teaching methods; assessment is a key aspect of the transition process during the course of teaching and should not be viewed as an endpoint in itself (Chien, Chung, Lin, & Tsay, 2006; Yeh, Tung, Yang, Chen, & Shiau, 2005). This means that the teaching evaluation process should involve the systematic and objective accumulation of information regarding the teaching process, collection of results, and analysis of data (Croxon & Maginnis, 2009; Jeng & Hwang, 2009; Shih, 2009; Watson & Deary, 1997).

Nowadays, teachers in nursing are required to transform students into nursing experts possessing basic professional knowledge and skills as well as impart dedication to service and leadership. Students must also develop autonomy and initiative for further learning and the independent thinking and judgment required to cope with the rapid changes resulting from global trends (Chen, 2010a; Gibbons, Dempster, & Moutray, 2008; Yan, 2009).

A review of the literature (Chen, 2010b; National League for Nursing, 2012; Taiwan Nursing Accreditation Council, 2006, 2010) found core competencies for graduates of baccalaureate nursing students to include critical thinking, clinical skills, basic biomedical sciences, communication, caring, ethics, accountability, and lifelong learning. An appropriate assessment tool is needed to enable teachers to teach more

## Introduction

Globalization has had a far-reaching impact on society as a whole. Professionals today find themselves in a fiercely competitive atmosphere, having to deal with new technology and the rapid dissemination of new information. Such pressures have affected nursing education significantly. Nursing education is unique in that it focuses on training students in the care of patients. Teaching is a dynamic process of interaction between students and teachers (Kelly, Lyng, McGrath,

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