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Teaching efficacy of nurses in clinical practice education: A cross-sectional study

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ABSTRACT

Background: Clinical nurses play a vital role in clinical practice education; thus, it is necessary to help clinical nurses have teaching efficacy through the development and application of systematic education programs.
Objectives: To identify nurses' teaching efficacy for clinical education and analyze the influencing factors of teaching efficacy.
Design and Methods: The study used a cross-sectional design. We used a convenience sample of 263 nurses from two hospitals. Teaching efficacy, general characteristics, and perception of clinical practice education were collected via self-reported questionnaires. Teaching efficacy was measured using Hwang's (2006) questionnaire, while perception of clinical practice education was measured using the Clinical Nurse Teacher Survey developed by Nishioka et al. (2014). Participants completed the questionnaire directly. The collected data were then analyzed using descriptive statistics, *t*-tests, ANOVAs, and multiple regression analysis with PASW Statistics 18.0.
Results: The mean total score of teaching efficacy was 72.5 (range 21–105). The leadership for students subscale had the highest score (3.56 ± 0.59). The factors influencing teaching efficacy were length of clinical career ($\beta = 0.26$, p < 0.001) and perceptions of work satisfaction ($\beta = 0.20$, $p = .005$), clinical supervisory relationship ($\beta = 0.18$, $p = .010$), and nursing at the hospital ward ($\beta = 0.13$, $p = .029$). Altogether, these variables explained 28% of the variance in teaching efficacy in nurses.
Conclusion: Based on these results, nursing educators might need to develop greater confidence in their knowledge and enhance control of their teaching strategies. Nursing schools and hospitals might need to provide greater support and educational opportunities to nurse clinical practice instructors. Furthermore, constructing a system of cooperation between these colleges and educational hospitals, developing programs to enhance teaching efficacy, and identifying the clinical instructor's role are all necessary to promote clinical practice education.

1. Introduction

Nursing education institutions must aid nursing students in adapting to the practical work that a clinical setting demands of them. Particularly, it is important to cultivate a skilled nursing workforce through offering students the opportunity to participate in "realistic nursing work," wherein they can apply their critical thinking ability in diverse clinical situations (Warner and Burton, 2009).

However, recently graduated nursing students are believed to have relatively poor practical skills (Bisholt, 2012), despite their receiving practical education and their learning achievements in clinical practice (Löfmark et al., 2011). Nursing students in the Republic of Korea have particularly been identified as having insufficient experience in direct

nursing care during practical training. As a result, health care institutions must often invest considerable time and money into educating each newly graduated nurse to ensure that their skills are at a professional level (Kwon and Seo, 2012). This suggests that there is a large gap between theory and practice in nursing education (Rahnavard et al., 2013).

The problems contributing to this gap are manifold. One set relate to the instructors, with the most common being insufficient qualifications as clinical educators, an overall lack of an educational workforce, instructors who are inappropriate role models for nursing students or who have insufficient understanding of clinical practice education, and the use of inappropriate practical assessments. Nursing professors have in particular demonstrated various limitations in clinical practice

instruction, such as poor clinical practice skills and insufficient hands-on experience, or an inappropriate ratio between professors and students (e.g., the professor to student ratio is around 1:20, or the clinical instructor to student ratio is about 1:8; Cho and Kwon, 2007).

The Korean Accreditation Board of Nursing Education (KABONE) requires that clinical instructors have a bachelor's degree with a minimum of three years of clinical experience. While head nurses tend to be the primary overseers of students' practical training, numerous researchers have expressed that registered nurses may be more appropriate (Song and Kim, 2013). Indeed, the evidence suggests that the clinical knowledge, communication, and feedback technique of ward nurses can have a positive impact on students' subjective learning (Kelly, 2007). The active participation of clinical practice instructors is critical for implementation of practical education that connects theory and actual practice (Ip and Kit Chan, 2005). Specifically, improving high-quality clinical practice education requires nurses with educational competence as clinical instructors (Kim et al., 2007); desirable clinical instructors can forge links between theory and practice and possess rich clinical experience.

Unfortunately, while nurse educators may possess sufficient personal self-efficacy as a result of their strong base of clinical experience, their self-efficacy in relation to teaching may be less developed (Nugent et al., 1999). Indeed, most clinical practice instructors have not received appropriate training for their instructor role and have few opportunities to accumulate further knowledge or experience of clinical practice education (Suplee et al., 2014). Hence, clinical practice education must be improved through the development and application of systematic education programs for nurses who want to work as clinical practice instructors.

Theory on teacher self-efficacy emerged from Bandura's (1977) cognitive theories of social learning and self-efficacy. Later on, Ashton and Webb (1986) developed a conceptual model for teacher efficacy that comprised two dimensions: teaching efficacy and personal efficacy. Teaching efficacy is defined as beliefs about the extent to which teachers can influence student learning. Thus, instructors' teaching efficacy can influence the contents of their lectures and students' learning achievements. Systematic education focusing on teaching efficacy is necessary to prepare instructors for their educational activity (Charalambos et al., 2008). More specifically, clinical nurses who receive the necessary qualifications for instructing nursing students can offer substantially higher-quality clinical practice education. Furthermore, understanding what factors influence instructors' teaching efficacy would help them optimize their lessons and thereby maximize students' learning achievements. Teaching efficacy is known to be influenced by peer support, educational support, and educational institution (Chang et al., 2010). Additionally, several studies have demonstrated that teachers' perception about education had an influence on their teaching efficacy (Park and Lee, 2013).

This study verified the influential factors of nurses' teaching efficacy in clinical practice education in order to provide fundamental data for improving clinical practice education.

1.1. Purpose of This Study

The purpose of this study was to verify the factors influencing the teaching efficacy of nurses in clinical practice education. The specific aims are as follows: (1) to identify nurses' perceptions of clinical practice education; (2) to understand the differences in teaching efficacy according to subjects' general characteristics; and (3) to verify the factors influencing the teaching efficacy of the research subjects.

2. Method

2.1. Design

This was a descriptive study to verify the factors influencing the

teaching efficacy of nurses who work as clinical practice instructors.

2.2. Subjects

Subjects were the nurses working at university hospitals located in City B and City C. The inclusion criteria were a nurse (1) working in the ward where students were practicing and (2) having a clinical career longer than two years. Subjects had given their written consent after listening to an explanation of the study. We calculated the necessary sample size using G*power 3.1 (Erdfelder et al., 1996): for a regression analysis with an alpha of 0.05, a 95% power, and an effect size of 0.2, we needed 262 participants. We used convenience sampling to recruit participants. Factoring in a withdrawal rate of 10%, we distributed questionnaires to 300 nurses, of whom 290 responded (return rate 97%). After excluding 27 questionnaires with missing responses, a total of 263 nurses were included in the final analysis.

2.3. Measures

Among subjects' general characteristics, we investigated age, length of clinical career, position, education level (highest education level graduated), work department, experience in teaching clinical practice, experience in participating in clinical practice education, and preceptor experience.

Teaching efficacy was measured using Hwang's (2006) tool, who gave us consent to use the tool by email. This tool comprises 21 items in three subscales: confidence in knowledge (8 items), control of teaching strategies (6 items), and leadership of students (7 items). A 5-point Likert scale ranging from 1 (disagree) to 5 (agree) was used to assess each item. The total score ranges from 21 to 105, with higher scores indicating greater teaching efficacy. The internal consistency (Cronbach's α) was 0.94.

To assess participants' perceptions of clinical practice education, we used the Clinical Nurse Teacher Survey (CNTS) developed by Nishioka et al. (2014). We received consent to use the tool from one of the original authors by email. After translation and back translation, we verified the content validity of the CNTS using an expert panel of two nursing professors and five nurses with > 10 years' clinical experience. The tool comprises a total of 72 items in 9 subscales: ward atmosphere (10 items), leadership of the nurse manager (4 items), nursing at the hospital ward (7 items), clinical supervisory relationship (10 items), work satisfaction (10 items), job development and support (10 items), students' learning and benefits (10 items), and role and responsibility (11 items). All items are rated on a Likert 6-score scale except for the role and responsibility items, which are rated on a 5-point Likert scale. The total score ranges from 72 to 421, with higher scores indicating more positive perceptions of clinical practice education. The Cronbach's α coefficients of the seven CNTS subscales ranged from 0.86 to 0.94 in Nishioka et al.'s (2014) study, while they were 0.75–0.96 in this study.

2.4. Data Collection

Data were collected from October to November 2015. The researcher visited the nursing unit of each hospital to explain the research purpose and obtain their permission to perform the study. After receiving permission, the researcher explained the research purpose and protocol as well as how to complete the questionnaire to selected nurses, and then asked for their consent. The questionnaires were then distributed to participants, who returned the questionnaires after a few days. It took about 20–30 min to complete the questionnaire.

2.5. Data Analysis

PASW Statistics 18.0 (SPSS Inc., Chicago, IL) was used for all statistical analyses. We initially performed a frequency analysis and calculated descriptive statistics to examine the subjects' general char-