

## Sigma's 29th International Nursing Research Congress

### Nursing Students' Attitudes, Perceived Barriers, and Implementation of Evidence-Based Practices After Completing an EBP course

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#### **Purpose:**

The study aimed to (1) explore the relationships among evidence-based practice attitudes, perceived barriers, and implementation skills of nursing students after completing a required course in a two-year in-service baccalaureate program; (2) determine the factors influencing implementation skills.

#### **Methods:**

The fifteen-week semester-long course was a required part of the curriculum of a two-year in-service baccalaureate program provided by a university in southern Taiwan. During the lecture- and group activity-based course, after students were introduced to the basics of EBP, they were tasked with expressing clinical problems in a PICO question format, utilizing EBP electronic databases to search for evidence, appraising randomized controlled trials and systematically reviewing research articles based on a handout on the rapid review of critical appraisal tools. A total of 94 nursing students agreed to participate in the study and completed a descriptive survey at the end of the course. The structured survey consisted of eight items of demographic characteristics and four scales. The four scales included five items assessing learners' attitudes toward evidence-based practice (Hsieh & Lin, 2014), ten items assessing learners' barriers toward finding and appraisal research articles (Tsai, Kuo, & Cheng, 2010), eight items assessing learners' implementation skills gained through evidence-based practice (Hsieh & Lin, 2014) and ten items assessing students' satisfaction toward the course planning and teaching. Items were scored using a 5-point Likert-type scale. The internal consistency of each scale was estimated using Cronbach's  $\alpha$ , with scores of .962, .947, .955 and .966, respectively, reported for the four categories. Descriptive statistics, independent t-test, one-way ANOVA, Pearson product-moment correlation, and multiple linear stepwise regression were employed to analyze the data through SPSS 18.0.

#### **Results:**

63 of the participants were currently nurses in medical institutions. The majority of the participants had current or previous nursing work experience of less than 2 years ( $n = 35$ ) or between 2-5 years ( $n = 28$ ), mostly working in medical-surgical settings ( $n = 23$ ) and other healthcare departments ( $n = 32$ ). The participating nurses were mostly classified as level 0 ( $n = 44$ ) or level II ( $n = 14$ ) on the clinical ladder. 79 of the participants had never taken an evidence-based practice training course before. The general mean and standard deviation scores for students' attitudes toward EBP, barriers to finding and appraising research articles, implementation skills gained through EBP, and satisfaction toward the course planning and teaching were  $3.84 \pm 0.72$ ,  $3.39 \pm 0.80$ ,  $3.56 \pm 0.74$ , and  $3.79 \pm 0.62$ , respectively. Also, students perceived "understanding research reports is difficult ( $M \pm SD = 3.77 \pm 0.85$ )", "no confidence in ability to appraise research reports ( $3.56 \pm 0.84$ )", "applying organized information to clinical practice is difficult ( $3.50 \pm 0.84$ )" as the most common barriers to finding and appraising research articles. Participants who were currently nurses had more positive attitudes toward EBP than full-time students and other healthcare professionals ( $F = 2.13$ ,  $p = .03$ ). No other significant differences were found across the demographic characteristics and dependent variables. All possible pairwise comparisons among participants' attitudes toward EBP, barriers to finding and appraisal research articles, implementation skills gained through EBP, and satisfaction toward the course planning and teaching showed significant positive correlations ( $p < .05$ ). Additionally, the study showed participants' attitudes toward EBP, having had taken an EBP training course before, working in maternal-child settings, and current or previous

nursing work experience between 2-5 years could explain 81.6% of the variance in predicting nursing students' implementation skills gained through EBP ( $F = 70.73, p < .001$ ).

### **Conclusion:**

Though most participants were currently working as nurses in medical institutions at the time of the study, the majority of them stated that they had never taken an EBP training course before. Rather, after completing this academic EBP course, students still perceived barriers in finding and appraising research articles, despite their general positive attitudes toward and elevated implementation skills gained through EBP. Therefore, in addition to receiving EBP course at the school, hospitals will need to continuously promote EBP and offer relevant and satisfying EBP training courses for nurses to enhance their attitudes, reduce perceived barriers, and increase their implementation skills in applying EBP to clinical care. Nurses who possess positive attitudes toward EBP, have a 2-5 years of work experience, and work in maternal-child settings might be among the most appropriate candidates to receive hospital-initiated EBP training courses. Furthermore, the results of this research showed that for nursing schools and hospitals in the process of designing and planning EBP courses, strong focus should be placed on helping students and nurses to understand and appraise the quality of research reports, and organize information and apply it to clinical practice.

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### **Title:**

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### **Keywords:**

Evidence-based practice, Nursing education and Nursing students

### **References:**

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### **Abstract Summary:**

Evidence-based practice (EBP) has become a dominant and global trend in the healthcare industry. EBP courses provided in nursing schools could play a major role to bridge the gap between nursing education and practice. Nursing students' attitudes, perceived barriers, and implementation skills were explored after completing an EBP course.

### **Content Outline:**

I. Introduction

Though evidence-based practice (EBP) has become a dominant and global trend in the healthcare industry, the study showed only 26.8% of Taiwan hospitals have been promoting EBP. The study also found that a lack of evidence-based professional skills, limited English ability, and a lack of teaching staff

were barriers impeding the promotion of EBP. EBP courses provided in nursing schools, if properly implemented, could play a major role to bridge the gap between nursing education and practice.

## II. Body

The study aimed to not only explore the relationships among evidence-based practice attitudes, perceived barriers, and implementation skills of nursing students after completing a required course in a two-year in-service baccalaureate program, but to determine the factors influencing implementation skills. A total of 94 nursing students agreed to participate in the study and completed a descriptive survey at the end of the course. The structured survey consisted of eight items of demographic characteristics and four scales. The results showed all possible pairwise comparisons among participants' attitudes toward EBP, barriers to finding and appraisal research articles, implementation skills gained through EBP, and satisfaction toward the course planning and teaching showed significant positive correlations ( $p < .05$ ). Additionally, the study showed participants' attitudes toward EBP, having had taken an EBP training course before, working in maternal-child settings, and current or previous nursing work experience between 2-5 years could explain 81.6% of the variance in predicting nursing students' implementation skills gained through EBP ( $F = 70.73, p < .001$ ).

## III. Conclusion

After completing this academic EBP course, students still perceived barriers in finding and appraising research articles, despite their general positive attitudes toward and elevated implementation skills gained through EBP. Therefore, hospitals will need to continuously promote EBP and offer relevant and satisfying EBP training courses for nurses to enhance their attitudes, reduce perceived barriers, and increase their implementation skills in applying EBP to clinical care. Nurses who possess positive attitudes toward EBP, have a 2-5 years of work experience, and work in maternal-child settings might be among the most appropriate candidates to receive hospital-initiated EBP training courses.

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**Author Summary:** Chia-Hsin Cheng has been a clinical instructor at I-Shou University for seven years. During her services in the department of nursing, she has not only taught clinical courses academically, but also precepted students clinically. In addition, she has experience in presenting research posters at international nursing conferences. She has also published an article about nursing education in The Journal of Nursing (a journal of the Taiwan Nurses Association).