

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

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Background

Evidence-based practice (EBP) has become a dominant and global trend in the healthcare industry. Established at National Yang-Ming University in 2005, the Taiwan Joanna Briggs Institute Collaborating Center (TJBCC) has opened a new avenue for nursing training in Taiwan (Mu, 2009). **However, the study showed only 26.8% of Taiwan hospitals have been promoting EBP (Mu, Tsay, Chang, 2013). It 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 (Mu et al., 2013).** Yet, hospitals have gradually incorporated EBP competence into the clinical ladder program for nurses. EBP courses provided in nursing schools, if properly implemented, could play a major role to bridge the gap between nursing education and practice.

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.

Variables	Numbers (n)	Percentage (%)
Professional title		
Nurses	63	67.0
Students and other healthcare professionals	31	33.0
Current or previous nursing work experience		
None	20	21.3
< 2 years	35	37.2
2-5 years	28	29.8
5-10 years	2	2.1
> 10 years	9	9.6
Service department		
None	22	23.4
Medical-surgical settings	23	24.5
Intensive-care units	9	9.6
Maternal-child settings	6	6.4
Nursing administrative departments	2	2.1
Other nursing departments	32	34.0

The EBP Course:

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.

Research Design:

- A cross-sectional design.
- Involving 94 nursing students.
- 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.
- The internal consistency of each scale was estimated using Cronbach's α , with scores of .962, .947, .955 and .966, respectively, reported for the four categories.

Methods

Results

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 ± 0.84)", "applying organized information to clinical practice is difficult (3.50 ± 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 ($F = 2.13, p = .03$). 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 ($F = 70.73, p < .001$). (Also refer to table 1 & 2)

Table 2: Correlation between four main variables

Variables	(1)Attitudes	(2)Barriers	(3)Implementation	M ± SD
(1)Students' attitudes toward EBP				3.84 ± 0.72
(2)Barriers to finding and appraising research articles	.213*			3.39 ± 0.80
(3)Implementation skills gained through EBP	.824**	.287**		3.56 ± 0.74
(4)Satisfaction toward the course planning and teaching	.696**	.325**	.669**	3.79 ± 0.62

*: $p < .05$; **: $p < .01$

(Left) Table 1: Demographic characteristics

Clinical ladder levels	Numbers (n)	Percentage (%)
None	25	26.6
N0	44	46.8
N1	6	6.4
N2	14	14.9
N3	3	3.2
N4	2	2.1
Had ever taken the EBP training course before		
Yes	15	16.0
No	79	84.0
Hours of taking the EBP training course before		
None	79	84.0
1-10 hours	10	10.6
> 10 hours	5	5.3

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.**

References

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