The self-efficacy of performing evidence-based practice (EBP) in clinical nurses

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Background

\textbf{Evidence-based practice (EBP)}

- Researchers report that EBP provides safe and tailored care resulting in preferred outcomes such as higher care satisfaction in patients and families, reduction in hospital admissions (Katherine, 2010) and the solution to access in cost-constrained environments (Maria R., 2006)
Background

- **Evidence-based practice (EBP)**
  - the best available evidence should be the minimum standard at the point of care to benefit patients. (Sharon, J., 2009)
  - Yet, the translation process is not a linear process and has been far more complex than initially conceptualized. (Sharon, J., 2009)

Background

- Studies found that there was only about **15%** of nurses who had ever performed EBP (Shirey, 2006)
- Factors related to EBP implementation:
  - *Organization*(55%) : workload, time restriction, information equipment, and support from managerial level.
  - *Personal*(45%) : lack of reading and searching skills and lack of confidence in appraising research quality.

(Cai · Guo · Zheng · 2010)
Self-efficacy

- a central concept of Social Cognitive Theory
- refers to a person’s sense of confidence in his or her ability to perform a particular behaviour in a variety of circumstances

(Bandura 1982; Bandura 1997)

- Various studies have demonstrated that
  - self-efficacy is a crucial determinant of one’s behaviour and

(Nies and Kershaw 2002; Nishida et al. 2003)

- to be an influential predictor of actual behaviour

(Bozoian et al. 1994; McAuley et al. 1994)

Aim

This study aimed to identify the self-efficacy of performing EBP among clinical nurses
Methods

- Study design
  - Cross-sectional design
  - Purposive sampling
  - Data collection: 14th to 28th Feb. 2011

- Participants
  - Inclusion criteria
    - Registered nurses
    - Worked in the hospital for more than 6 months.
  - Exclusion criteria
    - Head nurse
    - Anesthesia nurse
    - Technical staff
    - Clinical nursing specialist
    - Respiratory therapist

Questionnaire

- Social demographic factors

- Evidence-Based Practice Beliefs scale (Melnyk et al., 2008)
  - Cronbach's alpha: .88

- Evidence-Based Practice Barriers scale (Funk et al., 1991)
  - Cronbach's alpha: .97

- Evidence-Based Practice self-efficacy scale (Sharon, J., 2009)
  - Cronbach's alpha: .95~.98
Ethical Considerations

- Ethical approval was obtained from National Dong Hwa University on 11th April 2011 and informed consent was thought.

Results

- A total of 27 nurses was recruited (mean age=27)
- Most of them worked in intensive care unit (96%) and nearly half of them (48%) have undertaken training of evidence-based practice
- Overall, the mean EBP self-efficacy level among this group of nurses was more than 50% (58%, SD=0.14) (range: 0-100%)
- Nearly 80% of the participants used internet to search literature three times per month
- The question entitled “how much confidence to read English research articles” got the lowest EBP self-efficacy level, which was 40%
Results – EBP self-efficacy

The top three items

- **1st** How many confidence in routinely evaluate the effectiveness of nursing interventions using measurable outcomes (66%)
- **2nd** How many confidence in obtain proper training and education to be able to effectively implement an evidence-based nursing intervention or practice (64%)
- **3rd** How many confidence routinely identify patient outcomes to target nursing interventions (61%)

Results – EBP self-efficacy

The lowest three items

- **1st** How many confidence in Reading English literature (40%)
- **2nd** How many confidence in organized the basic things which we need for change nursing (52%)
- **3rd** How many confidence in started a changing process which basic on EBP (55%)
Results - Beliefs

- The mean score of EBP beliefs was 3.3 (SD=0.28)(range=1-5).
- The highest score in EBP beliefs’ questionnaire is ”I am sure that the EBP guidelines could improve clinical care” (mean: 4.19, SD:0.56).
- The question of “I am very clear about the step of EBP” got the lowest score (mean=3.0, SD:0.78).

Results - Barriers

- The mean score of EBP barriers was 3.1 (SD=0.50)(range=1-5).
- The highest score in EBP barriers’ questionnaire is “It is hard to Reading English articles” (mean:3.52, SD:0.85).
Results - Pearson’s correlation

\[ \text{variable} \quad \text{working inventory} \quad \text{back to back inventory} \quad \text{age} \quad \text{hours of mentoring} \quad \text{EBP training} \quad \text{self-efficacy} \quad \text{Evidence-Based Practice} \quad \text{Belief} \quad \text{Influence} \]

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Discussion

1. The present study showed that the overall level of EBP self-efficacy was over 50% among this group of nurses.

   Previous study found that nurses are lack of confidence in conducting evidence-based practice in general (Adib-Hajbaghery, 2007)

2. Nearly 80% of the nurses in the present study has used medical databases at least three times per month.
   (1) All nurses in this study were from medical center.
   (2) All have undertaken EBP training at least three hours (per year).

   Previous study found that nurses who worked at the medical center checked databases more frequently than nurses who worked in other setting (Chang, 2007).
### Discussion

<table>
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<tr>
<th>Our study</th>
<th>Literature</th>
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<td>3. The lowest level of EBP self-efficacy is reading English research articles (40%).</td>
<td>English is one of the most popular barriers in conducting EBP among non-English speakers.</td>
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(Hanners et al. 2007)

In a non-English-speaking society, overcoming language barrier is warranted for clinical nurses to be able to obtain up-to-date evidence.

### Limitations

- **Sample size**
- **Clinical nurses working in other setting may demonstrate different figure**
Conclusion (1)

- This study found that clinical nurses from a medical center had:
  - moderate level of EBP self-efficacy
  - positive EBP beliefs
- There were positive correlation between EBP self-efficacy and EBP beliefs in this group of nurses.
- Language was the major barrier of performing EBP among this group of clinical nurses.
- Enhancing EBP self-efficacy may be one of the key factors that could facilitate clinical nurses to involve in EBP.

Implications for guideline developers/users

- Findings of the present study, as a baseline data, may inform the evaluation process and outcome of the intervention on promoting evidence-based practice.
- It is important for guideline developers and users to test the effect of a developed guideline on enhancing self-efficacy of evidence-based practice among nurses.
We would like to share with you that ~

- As a group of undergraduate students, this is our first research work
- It is not easy indeed to conduct a research and it is even more challenged to conduct a meticulous research for us as beginners
- However, we could make it eventually!
- We are very lucky that we could work with a very good team and could have a very good start in performing our first evidence-based nursing research
- We will keep going and ~

Thanks for your support for being in this last section