

## Section heading:

Teaching EBP Column

## Running heading:

Teaching Strategies for Implementing EBP

## Title:

Designing Assignments to Establish a Foundation for Evidence-Based Practice in an Undergraduate Clinical Nursing Course

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This column shares the best evidence-based strategies and innovative ideas on how to facilitate the learning and implementation of EBP principles and processes by clinicians as well as nursing and interprofessional students. Guidelines for submission are available at [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1741-6787](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1741-6787)

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## Body of Text:

Nursing faculty play a central role in facilitating students' use of best scientific evidence in their clinical practice (Callister, Matsumura, Lookinland, Mangum, & Loucks, 2005; Ciliska, 2005; Winters & Echeverri, 2012). Burns and Foley (2005) documented how they built a foundation for evidence-based practice (EBP) in their freshman seminar course. However, it has not been well-explicated in the literature how to stimulate clinical inquiry through incorporating EBP in a junior level clinical course.

Evidence-based practice is a key component of baccalaureate nursing curricula and is often threaded across all levels of a program to meet the standard mandated by national organizations (American Association of Colleges of Nursing, 2008; American Nurses Association, 2004). In the baccalaureate nursing program at a large Midwestern public university, EBP was established as one of seven critical domains of focus in all clinical courses. Our four-member faculty team discussed how best to meet the EBP criterion in our mental health clinical course. Since students were new to the specialty and had limited experience locating literature in this area, the most appropriate step of the EBP process was to focus on "Step Zero: Cultivate a spirit of inquiry" (Melnyk, Fineout-Overholt, Stillwell, & Williamson, 2010, p. 51). It was premature to expect students to write a PICOT (Population, Intervention or area of Interest, Comparison intervention or group, Outcome, Time) statement or locate the best evidence. Seven assignments were designed to promote clinical inquiry and to increase students' knowledge of mental health nursing. The aims of this paper are to (a) describe ways in which a foundation was laid for clinical inquiry through assignments, and (b) evaluate whether students searched for and cited recent literature in their clinical assignments.

## Heading level 1:

### Detailed Description of Strategy

Each of the seven assignments was accompanied by a detailed rubric. With faculty consultation, students identified a clinical event or phenomenon which they needed to learn more about and were required to search current, relevant literature. Students were encouraged to begin their search using the Cumulative Index to Nursing and Allied Health Literature (CINAHL). They were required to write weekly reflections over the course of their 6-week clinical. The first five reflections each focused on a specific clinical event and its management; students were expected to cite current literature in their 750- to 1,000-word paper. (the week six reflection was summative.) One component delineated in the grading rubric in their syllabus was "demonstrates depth of analysis and synthesis of ideas related to clinical experience/practice implications with use of current and relevant literature."

During the rotation, students were also expected to plan, lead, and evaluate a patient group, with the plan and evaluation presented as a written paper. They were instructed to use literature to develop the content of the teaching plan and their post-session evaluation following implementation of the group. Additionally, their "process recording" required them to document verbatim one of their patient interactions, note the specific communication techniques used, analyze the interactional process, and provide references to support their analyses from the literature.

## Heading level 1:

### Methods Used to Evaluate Outcomes

Four clinical faculty members, teaching two clinical groups of eight students each, used the seven assignments over the 6-week terms. To evaluate whether stimulated inquiry and facilitated use of literature in students' mental health clinical practice, we analyzed the number and type of references utilized in their written papers. Specifically, we determined whether students employed journal articles, their psychiatric textbooks, or other references (e.g., internet sources), and the number of each utilized in their written assignments.

## Heading level 1:

### Results

Sixty-four students were enrolled in the mental health clinical courses during the Fall Term of 2014, 32 during each 6-week rotation. With respect to reflections, in both 6-week sessions, the number of students citing journal articles increased steadily each week, and by week 5, 100% ( $n = 64$ ) of students documented a minimum of one journal article. Examining the clinical term as a whole (namely, eight clinical groups over the two half-terms), 75% ( $n = 48$ ) of students cited journal articles in their first reflection, and this percentage increased each week. Table 1 presents results for reflection papers in greater detail.

### Insert Table 1 about here

In the first half-term, 62.5% ( $n = 20$ ) of students used at least one journal article in their process recordings, 37.5% ( $n = 12$ ) used only their textbook, and 9.4% ( $n = 3$ ) used other sources in addition to articles or their text. In the second half-term, fewer students than in the first rotation (25%;  $n = 8$ ) incorporated at least one journal article in their process recordings, 50% ( $n = 16$ ) used only their textbook, and 3.1% ( $n = 1$ ) used other sources in addition to articles or their text.

Regarding the patient group assignment, in the first half-term, 90.6% ( $n = 29$ ) of students referenced at least one article for their group papers, 9.4% ( $n = 3$ ) used only their text, and 9.4% ( $n = 3$ ) employed additional sources beyond articles or their text. In the second half-term, 93.8% ( $n = 30$ ) of students referenced at least one journal article for their group papers, no students cited only their text, and 6.3% ( $n = 2$ ) used other sources in addition to articles or their text.

Based on data analyses, we concluded that when expectations were clearly stated in the clinical syllabus, with grading rubrics defined, students incorporated and referenced literature in their papers. In regard to written assignments, we found that students in the first half-term initially referenced journal articles much less than students in the second half-term.

Several explanations may elucidate our findings. First term students began their mental health rotation having had only one mental health nursing theory lecture, so they were less experienced in identifying clinical questions during the early part of their term. As they gained more experience in the specialty, and received more feedback and direction from their faculty members, both during their clinical hours and on their written papers, they demonstrated more skill in searching the relevant literature. In contrast, the second half-term students had been exposed to approximately 50% of their mental health theoretical content at the point they began their clinical rotation; 96.9% of students in this rotation referenced journal articles beginning with their first reflection.

In conclusion, the written assignments employed during clinical were successful in promoting students' search of the literature as a precursor to moving on to the first step of the EBP process. A limitation of our approach was that we did not require identification of the level of evidence. Based on our experience, we believe that students could have progressed even further with the EBP process, had similar assignments been required earlier in their education. Therefore, we recommend assignments requiring integration of evidence-based literature early, and throughout students' clinical education. Further, students should be required to critically appraise the evidence.

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### Heading level 1:

#### Linking Evidence to Action

- A foundational skill of developing intellectual inquiry among students can be achieved when assignments are designed that require linking clinical phenomena with relevant journal articles.
- Students' ability to locate and cite journal articles in their written work improves as they are exposed to more theoretical content during the term, and as they receive specific feedback from faculty.
- It is important that clinical assignments requiring use of evidence-based literature be incorporated early and throughout students' clinical education.

### Heading level 2:

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Table 1.

Frequency of Students Citing Recent Journal Articles in Their Written Reflections

	<b>Reflection 1</b>	<b>Reflection 2</b>	<b>Reflection 3</b>	<b>Reflection 4</b>	<b>Reflection 5</b>
First half-term (n = 32)					
Cited at least 1 article	53.2% (n = 17)	68.8% (n = 22)	71.9% (n = 23)	81.3% (n = 26)	100% (n = 32)
Cited only textbook	18.8% (n = 6)	18.8% (n = 6)	28.1% (n = 9)	12.5% (n = 4)	0% (n = 0)
Second half- term (n = 32)					
Cited at least 1 article	96.9% (n = 31)	96.9% (n = 31)	96.9% (n = 31)	90.6% (n = 29)	100% (n = 32)
Cited only textbook	0% (n = 0)	0% (n = 0)	0% (n = 0)	6.3% (n = 2)	0% (n = 0)
Term total of students citing at least one article (N = 64)	75% (n = 48)	82.8% (n = 53)	84.4% (n = 54)	85.9% (n = 55)	100% (n = 64)