Evidence-Based Practice Guideline
Implementing Gerontological Nursing Evidence-Based Practice Guidelines in a BSN Curriculum

The aging population in the United States and the need for nurses to be prepared in gerontological nursing is of great concern to nurse educators (Wilson, 2010). Historically, nursing education has had limited evidence on which to educate nursing students in gerontology (King, 2005). Preparation in evidence-based gerontological nursing practice is particularly important because students with limited exposure to quality care of older adults tend to have a negative attitude toward them and may hold misconceptions about aging that hinders their clinical experience and practice (Brown, Kim, Stichler, & Fields, 2009; Williams, Anderson, & Day, 2007).

Shifts in the nation’s health care needs have facilitated recommendations for inclusion of gerontology in nursing curricula to enhance the care of older adults (American Association of Colleges of Nursing, 2010; Jansen & Morse, 2004; Wilson, 2010). The Institute of Medicine (2010) has called for nursing education to respond to the shift in health care by applying new approaches to educate future nurses in the use of best evidence to plan and provide care for older adults. Using evidence-based practice (EBP) guidelines in nursing education curricula is proposed to assist students to enter the world of practice with the expectation of providing the best possible care to clients at all times (Schoenfelder, 2007). Yet, a majority of students have limited exposure to and knowledge of EBP and, more importantly, evidence-based gerontological nursing practice. It is imperative for faculty to expand their traditional ways of didactic teaching by incorporating novel learning strategies that develop and increase students’ exposure to EBP (Brown et al., 2009) and EBP competencies in the care of older adults.

The University of Iowa College of Nursing was awarded a P30 National Institutes of Health, National Institute of Nursing Research Center grant in 1993 to develop the Geriatric Nursing Interventions Research Center (GNIRC) for the purpose of promoting gerontological nursing research and education. In 1998, as a part of the GNIRC activities, a Dissemination Core under the leadership of Dr. Marita Titler was established. Development of EBP Guidelines for the care of older adults became a major activity and product of this endeavor. In 2010, when funding for the P30 ended, the development and dissemination of EBP Guidelines was moved to the Iowa John A. Hartford Center of Geriatric Nursing (IHCGNE), currently named the John A. Hartford/Csomay Center for Geriatric Nursing Excellence.

The EBP Guidelines, which are revised every 5 years, are based on an...
extensive and exhaustive systematic review of the literature to serve as the bases for (a) an in-depth overview of the specific topic related to the care of older adults; (b) listing and grading of the type and strength of research evidence for assessment and/or risk factors; (c) listing and grading of the type and strength of the research evidence for intervention/treatment recommendations; (d) inclusion of standardized measurement tools in an appendix for assessing and evaluating patient outcomes; (e) a knowledge test for evaluating the knowledge gained by care providers and caregivers reading the guideline; and (f) a process evaluation monitor that can be used to determine the care provider’s understanding of the guideline and to assess the support for using the guideline in practice.

More than 35 published EBP Guidelines focus on a range of topics concerning the care of older adults. Each guideline is authored by experts on the topic; has an expert editor overseeing its development; is reviewed and revised according to the recommendations of two expert external reviewers; and is reviewed by the series editor before being published by the John A. Hartford/ Csomay Center for Geriatric Nursing Excellence at the University of Iowa. The guidelines are available in electronic downloadable PDF format (access http://www.nursing.uiowa.edu/excellence/evidence-based-practice-guidelines). Beginning in the November 2007 issue (volume 33, issue 11), the Journal of Gerontological Nursing (JGN) partnered with the IHCGNE to provide the opportunity for the guidelines to be synthesized and published in JGN as a means to foster earlier adoption into practice. In 2012, the IHCGNE began a project to promote integration of the IHCGNE EBP Guidelines (access http://www.nursing.uiowa.edu/Hartford/index.htm) into curriculums of schools of nursing. In return for completion of a pre-curriculum integration survey, the participating nursing program was provided the IHCGNE EBP gerontological nursing guidelines to use in the curriculum. A yearly follow-up survey was conducted to determine what EBP Guidelines were used, what courses they were integrated into, number of students impacted, assignments used, and whether the guidelines would continue to be used in the curricula.

Concurrently, Our Lady of the Lake College School of Nursing, serving the southeastern region of Louisiana, was transitioning from a 2-year associate nursing degree program to a concept-based baccalaureate in nursing science (BSN) program. Gerontology was integrated in the life-span concept and partnering with the IHCGNE was an excellent opportunity to incorporate gerontological EBP Guidelines in the nursing curriculum. Gerontological nursing was included in the “across the lifespan” curriculum concept. Initial exposure to the curriculum and gerontology was in a four-credit pre-nursing course that introduced students to gerontology, EBP, professionalism, and research. The course included 3 credit hours of didactic instruction and 1 credit hour of clinical nursing home experience.

A Gerontological Nursing EBP Guideline Class Project was developed and implemented in the class. The purpose of the current article is to describe the class project and report student and faculty perceptions of the class project.

THE GERONTOLOGICAL NURSING EBP GUIDELINE CLASS PROJECT

The Gerontological Nursing EBP Guideline Class Project was a required 7-week assignment designed to introduce pre-nursing students to how evidence is used in the provision of care for older adults. Students were also introduced to skills for professional collaboration, dress, and communication. The class project was worth 10% of the students’ final course grade. Students worked in teams of four to five individuals. They were provided with one of the IHCGNE EBP Guidelines (Table 1). Students read through the guideline and performed a literature search to identify one article that had been recently published on the topic. Students created a one-page (i.e., front and back) professional handout that linked key concepts of the EBP Guideline to each step of the nursing process. They also created a 36x48-inch poster that introduced the EBP Guideline as it applied to nursing practice. The poster was organized to include an introduction to the EBP Guideline, the purpose, background, types of assessments/assessment tools used, and summaries of the interventions suggested in the EBP Guideline. Students created and practiced a 1- to 3-minute introduction to the poster (i.e., elevator speech) and a 10-minute oral report of the poster. They presented the posters and provided handouts to course faculty and fellow students in the classroom. During the classroom presentations, each student from each team posed questions about the EBP Guideline topic to their classmates, with some groups even offering prizes for correct answers. The second presentation was given to students and faculty from the college. More recently, nursing home and health system leaders were also invited to attend the poster session event held in a public area on the college campus. Positive comments were made about the event by those who came to the poster session. It was decided to study student and faculty perceptions of the class project to determine the impact on attitudes about care of older adults. This evaluation could then be used to further develop and refine the class project.

METHOD

An educational evaluation survey was developed to assess student and faculty perceptions of the Gerontological Nursing EBP Guideline
Class Project, which was taught to six different groups of students over six semesters. The 7-item evaluation questionnaires were developed by the researchers and reviewed by content experts. Semistructured interviews were used to collect follow-up data from faculty who had taught the course at some time over the six-semester period.

On approval from the participating college’s institutional review board (IRB), nursing faculty course leaders were contacted to arrange a time to distribute the evaluation questionnaire to students who had completed this course during the spring, summer, or fall semesters of 2012 and 2013. Nursing faculty who had attended any of the project presentations were contacted and asked to complete a faculty evaluation questionnaire. Consent to participate in the study was indicated by student and faculty return of the completed questionnaire; responses were anonymous. Students and faculty could opt out of the study by not completing and turning in the questionnaire. Descriptive statistics were used for the quantitative data. Qualitative data were analyzed through inductive content analysis (Miles, Huberman, & Saldana, 1994) by two of the authors (L.E.S., F.E.).

RESULTS
Student Perceptions of the Class Project

The total number of students who participated in the EBP class project was 420; 82% (n = 343) responded to the evaluation questionnaire. The Figure illustrates the major gains in understanding, knowledge, perception, and perceived provision of care by both faculty and students after completion of the class project. Not all students responded to each of the questions. Overall, ≥80% of students agreed or strongly agreed with all of the questions, except for the class project positively influencing their interest in providing care for older adults (73%) (Table 2). Survey comments and faculty interviews were further analyzed according to survey questions.

Of students who completed the questionnaire, 297 (87.9%) identified that the class project improved their understanding about the use of evidence in nursing care. Some students (n = 16) identified how health care is changing how they and/or nurses used EBP in patient care as a way of sharing new information from reliable sources. The project helped students understand the importance of reasoning, “thinking outside of the box for options rather than basic treatment,” and “using research to provide holistic nursing care.” The project improved students’ comfort in providing nursing care and interacting with older adults in the nursing home setting. A student identified that she “witnessed a lot that went against evidence, but learned what it was.” Another student explained that the “use of evidence improved my understanding as it provided a foundation to work from and apply new skills.”

Learning strategies that students found helpful included hands-on experience working with older adults in the nursing home, having to do research, and how they gained a better understanding not only of the importance of research but also how much information was available. Other students reflected that the group work and presentation helped them grasp the material. One student identified the use of student written reflections as important, and another student believed that more could have been done to enhance the classroom project. Suggestions included better organization so students knew exactly what was expected and possibly showing an example of the project. Two students wrote that they did not gain an understanding or knowledge of EBP.

The majority of students (n = 282, 83.7%) agreed or strongly agreed...
that the class project increased their knowledge and vocabulary related to gerontological nursing. Fifty students provided additional comments, with 46 students saying their knowledge and/or vocabulary increased. One student stated, “I was surprised by how much I didn’t know about the topic.” Others commented that the project “sparked” their interest in gerontology by allowing them to learn more about complications, professional nursing, and diseases. Two students identified that the quizzes, group work, and clinical rotations in the nursing home were helpful. However, four students identified that they did not learn new vocabulary or information.

Of the students, 279 (82.8%) identified that the class project positively influenced the way they saw older adults. Fifty-one (15%) students provided additional comments. The project helped students “understand older adults’ point of view”; helped see adults in a positive manner; and helped students realize the struggles, difficulties, and obstacles that older adults may experience. For some students, it reinforced empathy and understanding, and they gained insight or perspective on the increased needs of older adults. A small group of students also felt “more sympathetic,” “bad for them,” and “sorry...because they are taken advantage of.” One student “was opposed to geriatric care previously, but this broadened my view of this type of care,” and another student wrote that she “has more respect.” Two students wrote that they saw older adults in a “different way.” One student had no interaction with acutely ill older adults, and another wrote, “I definitely have a heart for older adults, but I don’t want to work with them in my career.” Another student wrote, “Still not interested.”

Overall, 247 (73.3%) students identified that the class project enhanced their skills in relation to older adults. Thirty-nine students provided additional comments, with 33 describing that their skills were enhanced and expressing how this increased their awareness and understanding as it relates to issues affecting older adults. Students described that they gained the skills of compassion, tolerance, and empathy and also shared how skills gained could be transferred into the clinical setting when caring for older adults by strengthening their assessment skills and treatment interventions. In addition, eight students described how their skills were enhanced and “working at the nursing home was an extremely positive experience.” Four students...
The majority of students (n = 291, 86.6%) identified that the class project improved their professionalism and presentation skills. Forty-two (12%) students provided additional comments, such as identifying that their professionalism and presentation skills improved by making them “feel like a nurse” and allowing them to learn about “ethics and expectations of nursing.” Sixteen students identified how this project specifically helped in their presentation skills, particularly in improving their communication skills. Conversations with attendees helped students increase their confidence by providing them with practice on public speaking, helping them overcome their fears, and giving them an opportunity to prepare. One student identified that she came to “be more outgoing and communicate more easily with others.” Five students explained how the project helped them learn about professional attire and skills; however, six students also identified that this project did not improve their professionalism and presentation skills. These students believed that the presentation was a waste of their time because of low attendance at the poster sessions.

Faculty Perceptions of the Class Project
The total number of faculty at the School of Nursing was 41; 66% (n = 27) completed the questionnaire, and eight faculty members participated in individual interviews. At least 90% of the participating faculty agreed or strongly agreed with all of the questions (Table 3). Faculty liked that the EBP Guideline project “introduces [the students] to research and allows them to make the connection from research to practice.”

One faculty member expressed how she believes a different viewpoint of “gero culture” was shared with students and how it helped students to see older adults as human beings with emotions and feelings. Faculty comments echoed the students’ comments in the need for clearer instructions to decrease students’ feelings of being overwhelmed. In addition, faculty believed that the course needed to better engage faculty members through such means as involving those who are specialized in gerontology in the course project.

DISCUSSION
Students and faculty perceived that the Gerontological Nursing EBP Guideline Class Project not only benefitted students beginning to learn about EBP in the care of older adults, but also was a beneficial introduction to professional nursing skills. Although not all students

| TABLE 2 | STUDENT PERCEPTIONS OF THE EVIDENCE-BASED PRACTICE GUIDELINES CLASS PROJECT (N = 343) |
|---------|-------------------------------|----------------------------------|-------------------------------|-------------------------------|-------------------------------|
|         | n (%)                         | Strongly Agree                   | Agree                         | Disagree                      | Strongly Disagree |
| This project: |                              | (N)                             |                               |                               | (N)                          |
| 1. Improved my understanding about the use of evidence in nursing care. | 122 (36.1) | 175 (51.8) | 22 (6.5) | 19 (5.6) | 338 |
| 2. Increased my knowledge and vocabulary related to gerontological nursing. | 95 (28.2) | 187 (55.5) | 39 (11.6) | 16 (4.7) | 337 |
| 3. Positively influenced the way I see older adults. | 126 (37.4) | 153 (45.4) | 40 (11.9) | 18 (5.3) | 337 |
| 4. Positively influenced my interest in providing care for older adults. | 93 (27.6) | 154 (45.7) | 62 (18.4) | 28 (8.3) | 337 |
| 5. Demonstrated the benefits of collaborative learning. | 124 (36.8) | 149 (44.2) | 37 (11) | 27 (8) | 337 |
| 6. Enhanced my skill as it relates to the older adult. | 125 (37.3) | 148 (44.2) | 44 (13.1) | 18 (5.4) | 335 |
| 7. Improved my professionalism and presentation skills. | 142 (42.3) | 149 (44.3) | 28 (8.3) | 17 (5.1) | 336 |

* Not all students responded to every question.
had an interest in working with older adults, overall they had more understanding of and respect for this patient population.

The advantage of this early introduction to EBP helped students realize how the science of nursing informs the art of gerontological nursing as a caring profession. Using the IHCGNE EBP Guidelines offered the opportunity for students to review a logical outline of the gerontological health issue, assessment tools, interventions, and outcomes. Similar to Schoenfelder’s (2007) overview of a class project, students benefited by carefully reading the guideline, synthesizing the guideline in a handout, and presenting a poster. Conducting a literature search to find one additional research article on the gerontological EBP Guideline provided an opportunity for students to begin to learn to search the literature, use EBP language, and see how recent research supported or refuted the EBP Guideline. The project design of providing students class time to work with their peers, seek faculty assistance, and present their work in the classroom to peers for feedback was intended to help students feel more comfortable prior to the second poster presentation to a college-wide audience. In addition, the opportunity to have exposure to older adults living in a nursing home setting helped make the use of evidence and research real and hands-on in regard to what the students would be learning in the nursing program. This project helped most students gain awareness and exposure to older adults and helped them begin to see and respect older adults as people and not disabilities. It is anticipated that this increased exposure to and positive perception of older adults is an important foundation to a positive attitude and positive behavior toward this patient population in future nursing practice (Lee, 2009).

Setting the expectation for professional behaviors to include collaborative group work with peers was a positive experience for students. This group work required an introduction to collaboration, negotiation, and team building skills with a payoff of recognition not only by their faculty and peers of the project work, but also other faculty members and community partners during the poster presentation.

**LIMITATIONS AND RECOMMENDATIONS**

Limitations were associated with the retrospective nature of this evaluation research and the development of the Gerontological Nursing EBP Guideline Class Project. Although the class project expectations were consistent, implementation of the class project over the six semesters

| TABLE 3 |
| FACULTY PERCEPTIONS OF EVIDENCE-BASED PRACTICE GUIDELINE CLASS PROJECT (N = 27) |

<table>
<thead>
<tr>
<th>This project:</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total Responses* (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Improved students’ understanding about the use of evidence in nursing care.</td>
<td>14 (51.9)</td>
<td>11 (40.7)</td>
<td>2 (7.4)</td>
<td>0 (0)</td>
<td>27</td>
</tr>
<tr>
<td>2. Increased students’ knowledge and vocabulary related to gerontological nursing.</td>
<td>16 (59.3)</td>
<td>11 (40.7)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>27</td>
</tr>
<tr>
<td>3. Positively influenced the way students see older adults.</td>
<td>10 (45.5)</td>
<td>11 (50)</td>
<td>1 (4.5)</td>
<td>0 (0)</td>
<td>22</td>
</tr>
<tr>
<td>4. Positively influenced students’ interest in providing care for older adults.</td>
<td>10 (45.5)</td>
<td>11 (50)</td>
<td>0 (0)</td>
<td>1 (4.5)</td>
<td>22</td>
</tr>
<tr>
<td>5. Demonstrated the benefits of collaborative learning.</td>
<td>10 (40)</td>
<td>13 (52)</td>
<td>2 (8)</td>
<td>0 (0)</td>
<td>25</td>
</tr>
<tr>
<td>6. Enhanced students’ skill as it relates to the older adult.</td>
<td>11 (45.8)</td>
<td>11 (45.8)</td>
<td>2 (8.4)</td>
<td>0 (0)</td>
<td>24</td>
</tr>
<tr>
<td>7. Improved students’ professionalism and presentation skills.</td>
<td>13 (52)</td>
<td>10 (40)</td>
<td>2 (8)</td>
<td>0 (0)</td>
<td>25</td>
</tr>
</tbody>
</table>

*Not all faculty responded to every question.
was inconsistent in delivery method due to change in faculty workload assignments. A majority of faculty members were new to the EBP Guidelines and geriatric content. In addition, not all faculty members were interested in the gerontological aspect of the assignment and may not have fully understood the approach of the project. Despite the inconsistency of faculty members, variety of expertise in gerontology, and level of engagement in the class project, the perceptions were positive. The positive perceptions demonstrated that the project’s influence regarding EBP and care of older adults was not solely dependent on the presence of an expert in gerontology during implementation of the project.

Despite the project being successful, it is important to engage faculty members in understanding the importance of gerontology to nursing education and practice. Although gerontology faculty members emphasize the importance of aging across the lifespan and the importance of maternal health, pediatrics, childhood, and adulthood to successful aging, prejudices among faculty may persist. Incorporating EBP guidelines across the lifespan is one mechanism that may help address these potential prejudices. Additionally, research on faculty members’ attitudes about gerontology and aging is critical.

Practicing nurses in long-term and acute care are integral to facilitating nursing students’ clinical experiences. Future research is needed to explore practicing nurses’ attitudes not only about EBP in the care of older adults but the use of EBPs by nursing students. The use of EBP guidelines in students’ clinical experiences may help not only the students, but also the practitioners in becoming consumers of research.

During the earlier semesters in which the class project was completed, students were assigned the EBP Guideline. During the more recent semesters, students chose their topic for the EBP Guideline, which led to more positive outcomes and created a genuine interest in the overall project. Ideally, it is recommended that students are encouraged to choose the EBP Guideline they wish to work on.

All students over the six semesters of the class project were surveyed at one time about the project, limiting comparative results within each semester. As the class project has evolved, comparison across semesters may be feasible and measurement of outcomes more clear.

Students were pre-nursing and may not have had enough nursing content to understand some of the concepts associated with the project. Faculty members’ understanding that the class project was an introduction to gerontological nursing EBP guidelines was critical. Currently, gerontology faculty members are offering to consult in the course and across the curriculum to strengthen other faculty members’ comfort with gerontological nursing content. In addition, working more closely with faculty to integrate the guidelines across the curriculum is currently underway.

Further research is needed to determine the integration and impact of the pre-nursing Gerontological Nursing EBP Guideline Class Project during the students’ time in the nursing program (Jansen & Morse, 2004). Interestingly, in the first cohort of accelerated BSN students, 25% chose a gerontological nursing practice issue for their senior nursing project. In addition, it would be interesting to see the number of students who chose a career and/or further education in the area of gerontology.

CONCLUSION

The findings in the current study reveal that the Gerontological Nursing EBP Guideline Class Project for pre-nursing students improved understanding of the importance of EBP in the care of older adults. An increased openness of the students’ to the challenges and strengths of caring for older adults was heartening. Increasing attitudes of respect for older adults and, for some, an interest in gerontology is important as population shifts and health care needs (and strengths) of older adults are experienced.

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