Evidence-based practice (EBP) is foundational for patient care in Magnet®-designated organizations. Because EBP has consistently demonstrated improved health care outcomes, patient safety, and nursing satisfaction (Balakas, Potter, Pratt, Rea, & Williams, 2009; Hockenberry, Walden, Brown, & Barrera, 2008; Melnyk, Fineout-Overholt, Gallagher-Ford, & Kaplan, 2012; Selig & Lewanowicz, 2008; Singleton & Levin, 2008), many health care organizations have invested resources to create a culture that sustains the use of evidence for direct care decision making (Patterson, Mason, & Duncan, 2017). Within such a culture, nurses are expected to assess their practice when planning and delivering care and are supported by the organization when doing so. Regulatory and accrediting agencies expect organizations to use evidence for practice to promote improved quality and safety outcomes. The Veterans Health Administration (2014), The Joint Commission (http://www.jointcommission.org), The National Quality Forum (http://www.qualityforum.org), Agency for Healthcare Research and Quality (2017), American Nurses Association (http://www.nursingworld.org), and Institute on Medicine (Bleich, 2011) all use evidence-based initiatives that produce patient safety. Clinicians must be knowledgeable about the evidence that demonstrates expected patient safety outcomes. To prepare nurses for these challenges, nursing models have been developed and nursing schools now incorporate EBP in their undergraduate nursing curriculum. It is not clear whether nurses incorporate their classroom EBP knowledge into practice, and there are many nurses who were educated prior to the adoption of EBP who may not have the skills needed to apply it in practice (Mahoney, 2009; Melnyk et al., 2012).

The purpose of this article is to describe the findings of a 5-year program evaluation of a hospital-based Evidence-Based Practice (EBP) Scholars Program. The EBP Scholars Program was developed in 2011 to (a) educate and engage staff in the EBP process and (b) develop a cadre of EBP mentors within each clinical unit of the organization. The evaluation of the EBP Scholars Program examined both the feasibility and the impact of the program. The findings suggest that not only is the program feasible to implement and highly acceptable to the participants, but it also significantly increases staff EBP self-efficacy and promotes staff engagement in EBP, organizational leadership, and professional development. Most importantly, this program has been foundational to motivating and sustaining a strong culture of inquiry at our Magnet® designated organization. [J Contin Educ Nurs. 2018;49(12):547-554.]
Research has shown that EBP is more likely to be incorporated into nursing practice when nurses can search for literature in the unit and have access to nursing and medical journals (Eizenberg, 2011). Nurses who hold positive beliefs and attitudes about EBP are also more likely to use EBP in practice (Frasure, 2008). Barriers to using EBP have also been studied extensively (Black, Balneaves, Garrossino, Puyat, & Qian, 2015; Brown, Wickline, Ecoff, & Glaser, 2008; Cadmus et al., 2008; Hollerman, Eiens, van Vleet, & van Achterberg, 2006; Pipe, Cisaro, Caruso, & Wellik, 2008; Porter-O’Grady, Alexander, Blalock, Minkara, & Surel, 2006; Porter-O’Grady & Malloch, 2008; Vratny & Shriver, 2007). Among the most cited barriers is the nurses’ skill level in interpreting research study findings and using these findings in practice (Gale & Schaffer, 2009). Pravikoff, Tanner, and Pierce (2005) reported that most nurses did not appreciate the contribution of research to practice, and the relationship between research findings and patient care outcomes had not been stressed in either education or practice settings. They also reported that although EBP has been widely discussed in the literature over the past decade, only 46% of nurses surveyed were familiar with the term. Nurses who graduated even 5 years ago may not have had any formal education about EBP, regardless of having a research course (Melnyk et al., 2012; Pipe et al., 2009).

Today, nurses are asked to formulate clinical questions and translate research findings for safe and effective patient care in a changing practice environment. To achieve this, nurses need an organizational culture that supports EBP. Without a culture that supports EBP, evidence-based care is not likely to be sustained. Knowing this and thinking upstream, in 2011 our organization developed an EBP Scholars Program.

**HISTORY OF THE EBP SCHOLARS PROGRAM**

The vision of the EBP Scholars Program was first developed by the Nurse Executive and Magnet Program Manager after initial Magnet designation in 2010, which emphasizes staff nurse involvement in EBP. The overarching goals of the program were twofold: to educate and engage staff in the EBP process, and to develop a cadre of EBP mentors within each clinical unit of the organization. It was envisioned that the 1-year EBP Scholars Program would provide a key group of staff nurses with the knowledge and skills in applying EBP and to provide the resources and support necessary for them to be successful in identifying a clinical problem, applying a practice change, and measuring outcomes.

Administrative support was key to the development and continuation of this program, now in its sixth year. A nurse scientist was recruited to develop, implement, and evaluate an EBP Scholars Program. Another critical component was support from managers who strongly agreed that staff from units across the organization could attend monthly day-long workshops and conduct EBP projects over the course of a year.

After the first year, the EBP Scholars Program was evaluated and was approved to be offered on an annual basis. We currently have 1.6 full-time-equivalent nurse scientists who are responsible for the EBP Scholars Program. The EBP Scholars Program continues to be strongly supported by administration and staff throughout the organization.

The purpose of this article is to describe the 5-year program evaluation of the EBP Scholars Program at a Magnet-designated Administration Veterans Hospital. Specifically, we examined the feasibility of implementing the EBP Scholars Program, including the program completion rate and participant satisfaction, and the impact of the EBP Scholars Program on participants’ EBP self-efficacy and engagement in EBP and organizational leadership.

**METHOD**

**Institutional Review Board (IRB) Consideration**

According to the IRB of record, this 5-year program evaluation did not require formal IRB review because in accordance with federal regulations, our organization-specific project did not constitute research as defined under 45 CFR 46.1029(d).

**Setting and Sample**

The program was implemented at a 131-bed Magnet-designated Veterans Administration Hospital located in the midwestern United States. It is a teaching and research facility. Forty-nine percent of the RNs are certified in a specialty and 85% have Bachelor of Science in Nursing or higher degrees. Five cohorts have completed the program (N = 47). Initially, only RNs were invited to apply for the program. However, over time, as news spread about this program, interdisciplinary staff also applied. Application requirements included full time staff with at least 2 years of experience in their position and an intention to stay with the organization for at least 2 years after program completion.

**Program Description**

Interdisciplinary Scholars were selected through a competitive application process that involved obtaining endorsement from managers and defining a clinical problem that was a priority for the organization. Once selected, Scholars participated in eight monthly full-day workshops from October to May. Workshop topics included Defining a Clinical Question, Finding and Appraising the Evidence, Developing a Plan (Writing a Scholarly Project Proposal), Measuring Outcomes, Data Collection and
Analysis, Scientific Integrity and the IRB, Data Display and Interpretation, and Disseminating Findings. During this time, the Scholars learned about the EBP process and developed, implemented, evaluated, and disseminated an EBP project under the mentorship of a nurse scientist. Workshops were led by the hospital-based Nurse Scientists, with the addition of content expert guest speakers (e.g., a health-science librarian). The following September, Scholars present their completed EBP projects at nursing grand rounds. Examples of projects include Improving Ambulation Measurement, Documentation, and Communication in an Acute Inpatient Setting; Goals of Care Conversation Training Program for Nurses, Social Workers, Chaplains, and Psychologists; Decreasing Injury Risk: Removing Barriers to Utilizing Repositioning Slings in the Intensive Care Setting; and Implementing Standardized Discharge Education in the Emergency Department Using the Teach Back Method.

**Measures**

Scholar demographics included age, education level, primary position, years of clinical experience, and years within the organization (Table 1).

The measures below were used to assess the feasibility of the program:
- Program completion rate. This was assessed at the end of the program year.
- Workshop satisfaction. After each workshop the Scholars completed evaluations to measure satisfaction with the quality of content, effectiveness of speakers, relevance of topics, effectiveness of group activities and quality of handouts. Each item was rated on a 5-point scale, with 5 being most positive. An overall average score for each workshop was calculated.
- Scholar program satisfaction. Scholars responded to open-ended questions about the strengths and weaknesses of the program at the end of the program year. Additionally, at the 1-year follow up, Scholars were asked whether they would recommend the program. The measures below were used to assess the impact of the program:
  - EBP Self-Efficacy Scale. Scholar EBP Self-efficacy was measured using an adaption of the Tucker Evidence-Based Nursing Practice Self-Efficacy Scale (Tucker, Olson, & Frusti, 2009). Scholars rated their self-efficacy for 15 items on a scale of 0% to 100%, with higher

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>SCHOLAR DEMOGRAPHICS BY COHORT</th>
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<tbody>
<tr>
<td>Age (years)</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>Range</td>
</tr>
<tr>
<td>Highest degree</td>
<td>ADN</td>
</tr>
<tr>
<td></td>
<td>BSN/BS/BA</td>
</tr>
<tr>
<td></td>
<td>MSN/MS/MA</td>
</tr>
<tr>
<td></td>
<td>Doctorate</td>
</tr>
<tr>
<td>Primary position</td>
<td>Staff nurse</td>
</tr>
<tr>
<td></td>
<td>Case manager</td>
</tr>
<tr>
<td></td>
<td>Educator</td>
</tr>
<tr>
<td></td>
<td>APRN</td>
</tr>
<tr>
<td></td>
<td>Nurse manager</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Years of experience, range</td>
<td>Not collected</td>
</tr>
<tr>
<td>Years at organization, range</td>
<td>Not collected</td>
</tr>
</tbody>
</table>

Note. ADN = Associate’s Degree in Nursing; BSN = Bachelor of Science in Nursing; BS = Bachelor of Science; BA = Bachelor of Arts; MSN = Master of Science in Nursing; MS = Master of Science; MA = Master of Arts; APRN = advanced practice registered nurse.
scores indicating greater self-efficacy. EBP self-efficacy was assessed at baseline, at the end of program year, and at the 1-year follow up.

- Engagement in EBP and organizational leadership. The frequency of Scholar engagement in EBP and EBP initiatives was assessed at the 1-year follow up.
- Scholar reflection of the impact of participation. At the 1-year follow up, Scholars were asked to reflect on the personal and professional impact of participating in the program.

Analysis

Descriptive statistics were used to analyze all data. Analysis of variance (ANOVA) with post hoc comparison tests using Bonferroni correct was used to analyze EBP self-efficacy scores. Content analysis (Neuendorf, 2002) was performed to analyze the open-ended responses.

RESULTS

Program Feasibility Results

Program Completion Rate Across Cohorts. The number of participants accepted into the program has not exceeded 13 to ensure appropriate classroom space, as well as adequate nurse scientist mentorship. The program completion rate of cohort 1 was 67%; cohort 2, 77%; cohort 3, 89%; cohort 4, 100%; and cohort 5, 82%. Attrition was most commonly associated with competing workload priorities.

Workshop Satisfaction. Scholars reporting being very satisfied with the individual workshops. The average satisfaction scores (across cohorts) has ranged from 4.7 to 5 (1 = not satisfied and 5 = very satisfied). Further, across cohorts, 89% of participants would recommended the program to others.

Program Strengths. Scholars appreciated the mentorship from experienced nurse scientists. They also appreciated the opportunity to learn the EBP process. They reported that having some time allotted to conduct the project embedded into the program was vital to project completion. They stated that the program was highly organized and provided them with access to resources with which they otherwise were unfamiliar. One resource they found particularly helpful was access to a health-science librarian. This facility does not have its own librarian but does have access to a health-science librarian at the associated university. Scholars noted:

- Giving nursing staff the opportunity and guidance necessary to pursue an evidence-based project. Easy access to the nurse scientist for supervision. (Scholar in cohort 3)
- All resources needed were readily available for us—the nurse scientists were amazing! Opportunity to be off the floor to really focus on your project! Overall, it was great to finally have the opportunity to put one of my ideas into practice and see my project come to life! (Scholar in cohort 4)

Program Weaknesses. Across cohorts, limited resources, especially time, was a frequently mentioned program
weakness. First, although the Scholars liked having time allotted for project work during the workshops, they reported that the time needed to complete the EBP project was typically more than the time allotted on workshop dates. This required Scholars to find additional time to work on their project and depending on staffing, some managers were better able to allow additional time away from the unit than others. The Scholars also reported some concerns over small classroom size. Scholars noted:

- Support from manager on the floor, protected time to work on project wasn’t always available unless [attending] scheduled official class. (Scholar in cohort 5)
- We had a large class and I think space was a bit of an issue. (Scholar in cohort 4)

Program Impact Results

**EBP Self-Efficacy**. Across all cohorts, EBP Self-Efficacy scores increased from baseline to end of program year to 1-year follow up (Figure 1). An ANOVA showed that the effect of the program on EBP self-efficacy was significant $F(2, 11) = 30.0138, p < .01$. Post hoc comparisons using the Bonferroni correction indicated that the mean EBP self-efficacy score at baseline ($M = 50.34, SD = 11.70$) was significantly different than the self-efficacy score at the end of the program year ($M = 82.68, SD = 1.29$) and 1-year follow up ($M = 83.41, SD = 4.97$). The self-efficacy scores between the end of the program year and 1-year follow up did not differ significantly.

Three items on the EBP Scale with the greatest percent change from baseline to end of program year across cohorts were: evaluating the ethical issues and obtaining the necessary oversight (136% increase), obtaining proper training and education to conduct an EBP project (130% increase), and activating the processes to implement a practice change (128% increase; Table 2).

### Table 2

<table>
<thead>
<tr>
<th>EBP Self-Efficacy Scale Item</th>
<th>Average Change, Baseline to End of Program Year Across Cohorts</th>
<th>Rank Order of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routinely ask questions about my practice</td>
<td>12%</td>
<td>15</td>
</tr>
<tr>
<td>Locate resources in my department and organization to facilitate my understanding of research literature relevant to my nursing practice</td>
<td>50%</td>
<td>14</td>
</tr>
<tr>
<td>Critically appraise the research literature and rate levels of evidence</td>
<td>92%</td>
<td>9</td>
</tr>
<tr>
<td>Locate resources in my department and organization necessary to institute an EBP change</td>
<td>106%</td>
<td>6</td>
</tr>
<tr>
<td>Locate and review published practice guidelines that support nursing interventions important to my practice</td>
<td>78%</td>
<td>11</td>
</tr>
<tr>
<td>Organize the necessary support and procedures to make a nursing practice change based on evidence (research, clinical practice guidelines, clinical expertise, patient goals/preferences.)</td>
<td>105%</td>
<td>7</td>
</tr>
<tr>
<td>Routinely identify patient outcomes to target nursing interventions</td>
<td>114%</td>
<td>4</td>
</tr>
<tr>
<td>Integrate the various sources of evidence and apply to my specialty population and practice</td>
<td>56%</td>
<td>13</td>
</tr>
<tr>
<td>Activate the processes to implement an EBP change</td>
<td>128%</td>
<td>3</td>
</tr>
<tr>
<td>Routinely evaluate the effectiveness of nursing interventions using measurable outcomes</td>
<td>84%</td>
<td>10</td>
</tr>
<tr>
<td>Obtain proper training and education to be able to effectively conduct an EBP or other nursing systematic investigation</td>
<td>130%</td>
<td>2</td>
</tr>
<tr>
<td>Evaluate the ethical issues and obtain the necessary oversight needed to conduct a clinical project</td>
<td>136%</td>
<td>1</td>
</tr>
<tr>
<td>Identify and collect measurable outcome data</td>
<td>101%</td>
<td>8</td>
</tr>
<tr>
<td>Analyze and make decisions about data and outcomes</td>
<td>62%</td>
<td>12</td>
</tr>
<tr>
<td>Disseminate the outcomes of a systematic investigation</td>
<td>110%</td>
<td>5</td>
</tr>
</tbody>
</table>
Engagement in EBP, Organizational Leadership, and Professional Development. Most participants were engaged in various aspects of EBP 1 year after program completion. Many initiated new EBP projects, consulted on projects, and mentored colleagues. Many were involved in leadership opportunities within the organization, and half were promoted. Finally, nearly two thirds of participants enrolled in or completed a graduate education program (Table 3).

Major Impact of Participating in the Scholars Program. The Scholars reported that the program increased their knowledge about EBP and their confidence in conducting EBP projects. They felt that the program enhanced their professional development, including increasing their engagement in committee work, disseminating their scholarly efforts, enrollment in graduate school, and advancement in their annual proficiencies. Scholars noted:

- One of the most tangible benefits is the ability to critically appraise literature. In an ever-changing field, this had become a very beneficial quality to possess! (Scholar in cohort 4)
- My confidence to move outside my comfort zone. I am more comfortable to try new projects, speak in front

of a group and am in the “contemplative state” of another project. (Scholar in cohort 1)

Discussion
Use of EBP has consistently demonstrated improvements in health care outcomes and nursing satisfaction (Balakas et al., 2009; Hockenberry et al., 2008; Melnyk et al., 2012; Selig & Lewanowicz, 2008; Singleton & Levin, 2008). However, to ensure that staff can fully engage in EBP, organizations must support staff in this endeavor. Realizing this, our organization developed and implemented a mentored EBP Scholars Program. The objectives of this program were to educate and engage staff in the EBP process and to develop a cadre of EBP mentors within each clinical unit in the organization. Our results suggest that not only have objectives been met, but also the program is feasible and highly acceptable to staff.

Educating Staff About the EBP Process
The meaningful improvements in EBP self-efficacy that were sustained over time suggest that our Scholars gained a valuable and comprehensive understanding of the EBP process. Many of our Scholars had been in clinical practice for more than 20 years. Given the recent emergence of EBP curriculum in nursing programs (Melnyk et al., 2012; Pipe et al., 2009), many of our staff were learning about EBP for the first time. Further, even for those who had obtained formal EBP training in their nursing programs, the type of intensive, mentored EBP experiential training offered by our program is likely more immersive than the didactic training commonly offered in academia. Throughout the program, the Scholars engage in the development, implementation, and evaluation of an evidence-based practice change project. This mentored experience ensures that the Scholars become familiar with organizational resources, stakeholders, committees, and change processes unique to our organization. The EBP Scholars Program provides both the didactic and unique experiential training that our data suggest greatly improve EBP self-efficacy.

Engaging Staff in EBP Efforts and Developing a Cadre of EBP Mentors
The EBP Scholars Program has also resulted in developing staff who are regularly engaged in EBP and serve as EBP mentors across our organization. At 1-year follow up, all Scholars reported using skills learned in the EBP program in their daily practice (100%), and many had either started new EBP projects (65%) and/or mentored others in doing EBP (70%). The strength of the design on this program evaluation was the ability to examine the impact of the program 1 year postcompletion. The sustained con-
Factors Associated With EBP Scholars Program Feasibility

The EBP Scholars Program has demonstrated that it is feasible to implement. However, the success of the program would not have been possible without the commitment from our nursing administration, who made the financial commitment to support both the nurse scientists to teach the program, as well as the staff paid time away from the unit. Our administration recognized that not only does participation in an EBP Scholars Program help staff learn about and engage in EBP, but additionally it contributes to nursing excellence as the Scholar's EBP projects benefit patients. Our Scholars are strongly encouraged to select projects that are based on data-driven organizational priorities recognized by administration. Other resources that are necessary for programmatic success include classroom space and health-science library resources.

Factors Associated With Program Satisfaction

The EBP Scholars Program was highly acceptable, as overall 89% of the Scholars reported that they would recommend the program to others. Over the course of the program, we actively sought out recommendations for program improvement. Every cohort reported that they would have preferred more paid time allotted to complete their project. Although much of the work can be completed on workshop days, it is often necessary to work on their project outside of these days. Staff nurses had the most difficulty finding time to work on the project outside of workshop days because of patient care responsibilities. Supportive unit management is vital to the success of the nurses having administrative time away from patient care to complete their work. Those who are implementing the practice change as a part of the current role can more easily work on EBP projects because it is often part of the regular workload. Over the course of offering the program, we have found that it is important to provide Scholars with a clear expectation of the time commitment to reduce attrition. We include a description of the time commitment in the informational letter that accompanies the request for applications.

Future Directions

Our EBP Scholars Program will continue as we have met the objectives of educating and engaging staff in the EBP process and developing a cadre of EBP mentors within each unit. Our results also suggest that the EBP Scholars Program is feasible to implement and highly acceptable to staff. Most importantly, this program has been foundational to cultivating and sustaining a strong culture of inquiry at our Magnet-designated organization.

REFERENCES