Purpose: The purpose of this integrative review was to determine whether a journal club (JC) is a successful medium to bridge the research-to-practice gap and more specifically to answer the question: Do JCs increase research knowledge, dissemination of the knowledge, and implementation of evidence into practice? 

Background: Although substantial advancements have been made to increase awareness and utilization of evidence-based practice (EBP), the implementation of evidence into practice has its limitations. 

Theoretical Framework: The Promoting Action on Research Implementation in Health Service framework was used as the theoretical base for this review. 

Review Methods: An integrative review, as described by Ganong, was conducted. The search generated 28 articles, 10 of which met the inclusion criteria. Data were interpreted and evaluated using a data summary sheet influenced by the Ganong approach. The findings were summarized into 4 categories: understanding, circulation, implementation, and facilitation. 

Data sources: CINAHL, MEDLINE, Cochrane, Athens, Google Scholar, and Academia Premiere. 

Outcome: Journal clubs improved research-critiquing skills and increased the dissemination of research findings, but lacked the ability to integrate the evidence into practice. Facilitators of a successful JC were leaders in reviewing, developing, and implementing EBP. 

Conclusion: The 3 elements of the Promoting Action on Research Implementation in Health Service framework, context, evidence, and facilitation were supported by the findings. 

Implications: A JC promotes change, stimulates professionalism, and provides the opportunity to improve practice through understanding, utilization, and implementation of EBP. 

KEY WORDS: evidence-based practice, journal club, knowledge translation, nursing, research utilization
is evident that innovative concepts that are also expeditious need to be initiated into healthcare.

Previous researchers have documented the barriers and influences to using research within nursing practice. Montgomery et al identified that “Barriers include a lack of knowledge among nurses of the research process and the inability to understand research reports.” Few research studies have been conducted on successful interventions used to overcome these barriers for research dissemination and implementation of research to occur. Journal clubs (JCs) have been previously described in the literature as a powerful tool for research utilization and education by providing experience in locating, appraising, and implementing research to practicing nurses under the guidance of an experienced mentor.

A journal club is not an avant-garde idea in the world of medicine. In fact, JCs have been used in medicine for educational purposes dating back to 1875. Today, JCs are still thriving in medical schools, but have made little expansion into nursing. Clinical nurse specialists (CNSs) have been instrumental in the creation of more JCs in healthcare facilities and thereby narrowing the research-to-practice gap. The CNS role as a researcher is a vital component to improving patient care through the development and utilization of empirical research.

PURPOSE

While substantial advancements have been made to bridge the gap between research and practice through increasing awareness and utilization of evidence. The implementation of research findings into practice has its limitations. Therefore, the aim of this integrative review was to determine whether a journal club is a successful medium to bridge the research-to-practice gap, more specifically to answer the question: Do journal clubs increase research knowledge, dissemination of the knowledge, and implementation of evidence into nursing practice?

SEARCH METHODS

Design

An integrative review was conducted using the guidelines described by Ganong. The sample was collected through informal, primary, and secondary phases. The informal phase consisted of peer sharing among nurses who attended journal club meetings at LaPorte and Porter Hospitals. During the primary phase, the libraries at Valparaiso University, Purdue University North Central, and LaPorte Hospital were used to review journal articles. The secondary phase was performed via searching the following databases: CINAHL, MEDLINE, Cochrane, Athens, Google Scholar, and Academia Premiere. Multiple combinations of the key words journal club, nursing, research utilization, evidence-based practice, and knowledge translation were used during the database search.

Sample

Although the literature contains a plethora of information regarding journal clubs, much of the information is based on opinion and not empirical research. A decision was made initially to include original research that was published in nursing journals and written in English between the years 2000 and 2007 because these kinds of articles were thought to have the most current research on EBP. However, it soon was apparent that the initial inclusion criteria were too stringent and that more evidence was needed to maintain the validity of the review. Therefore, the inclusion criteria were augmented to include studies involving health professionals from other disciplines. Furthermore, the time span was expanded to include articles published as far back as 1995. This increased the sample to 28 abstracts. These 28 abstracts were reviewed to verify that the inclusion and exclusion criteria were met. Next, duplicate abstracts, nonresearch abstracts, and literature reviews were removed, which left 16 empirical research abstracts. Full-text articles of the 16 abstracts were obtained and read. Of these, 10 articles were found to be relevant to the research question.

Analysis

Ten articles were read in their entirety, examined on an individual basis, and compared with the other articles to determine reliability and validity. Data were interpreted and subsequently evaluated using a data summary sheet. The author created a summary table resembling the format advocated by the Ganong approach (Table 1). Once each study was summarized appropriately, the author compared data among the 10 studies to determine commonalities and extract themes.

RESULTS

After data were synthesized, it was found that participation of nurses in journal clubs can increase research knowledge, dissemination of the knowledge, and implementation of evidence into practice. Four major themes emerged: understanding, circulation, facilitation, and implementation. These 4 themes represent basic processes that are needed to initiate and maintain a successful journal club.

Understanding

According to Montgomery et al, “An understanding of how to read the literature is crucial; furthermore, a lack of awareness of current research results represents a loss of potential for improving patient care.” Six articles in the review discussed an increase in the nurses’ skills regarding critiquing and evaluating research. Jolly reported that nurses’ attitudes toward research and development were poor before any involvement in a program that assisted them to fully understand how to read and critically appraise research articles. Karkos and Peters established that nurses’ approaches to research utilization and implementation should focus on critiquing research articles and implementing research into practice. Milne et al discussed the increased ability of participants to generate questions that are meaningful to practice, as well as the ability to perform research in a rigorous manner. Rajpal et al revealed that critical appraisal of research is a fundamental goal of a journal club.
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<td>McQueen et al13</td>
<td>Explore the potential impact participation in a specific journal club had on knowledge of evidence for practice and actual clinical practice</td>
<td>Exploratory study</td>
<td>Convenience sample of 7 occupational therapists</td>
<td>Pre/post questionnaire</td>
<td>Qualitative content analysis to identify key themes</td>
<td>Journal clubs increase confidence, knowledge, and skills in research. Journal clubs promote changes in professional practice, staff attitudes, and increase awareness of evidence base practice information for patient interventions.</td>
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<td>Clifford and Murray2</td>
<td>Explore ways of facilitating the use of research in nursing and midwifery practice</td>
<td>Qualitative</td>
<td>Convenience sample of 473 nursing and midwifery staff in the trust</td>
<td>Involvement Attitude</td>
<td>Research Utilization Questionnaire</td>
<td>Qualitative content analysis to identify key themes Quantitative parametric tests</td>
<td>Overall positive attitudes toward research. Nurses lack the knowledge required to use research in practice. Professional journals are the medium where nurses are obtaining research information.</td>
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<td>Camiah1</td>
<td>Describe the extent to which nursing research was being used in practice and the degree of nurses’ awareness of current research findings relevant to their daily work</td>
<td>Qualitative</td>
<td>Convenience sample of 34 second-/third-year nursing students and 36 key informants; second sample was purposive of 30 practitioners employed in 2 different settings</td>
<td>Individual and group interviews</td>
<td>Qualitative content analysis to identify key themes</td>
<td>Research awareness and utilization are poor and have high resistance to improve. Changes could improve both by working together to promote research in practice through facilitation, support, encouragement, role modeling, consistency, and application in clinical practice.</td>
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<td>Milne et al14</td>
<td>Demonstrate a potential approach to the challenge of ensuring that practice is evidence based</td>
<td>Cross-sectional qualitative</td>
<td>Convenience sample of 120 nurses and allied health professionals</td>
<td>Survey</td>
<td>Qualitative content analysis to identify key themes</td>
<td>The program was worthwhile and beneficial to everyday practice. A critical appraisal and research utilization program has benefits of building confidence, knowledge, and skill acquisition and for the organization in terms of provision of evidence-based care and quality and safety.</td>
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<td>Rajpal et al16</td>
<td>Determine resident perceptions of journal clubs, factors that make JCs successful, and identifying variables for improving JCs</td>
<td>Descriptive electronic survey</td>
<td>Convenience sample of 763 resident members of the Congress of Neurological Surgeons</td>
<td>Attendance at journal club</td>
<td>Questionnaire</td>
<td>Perceived primary goal of JCs is keeping current with literature and the dissemination of information. Students increased skills in critiquing and evaluating research articles.</td>
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<td>Wilson and Collins (2005)</td>
<td>Encourage the use of the video journal club as part of a professional education program; explore the factors that contribute to the sustainability of the present video outreach journal clubs.</td>
<td>Retrospective audit</td>
<td>Convenience sample of 20 outreach journal clubs</td>
<td>Activity Attendance Type of journal used Change in practice</td>
<td>Log: “Journal Club Review Form”</td>
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<td>Fink et al (2005)</td>
<td>Examine the effects of multifaceted organizational strategies on registered nurse’s use of research findings to change practice.</td>
<td>Descriptive cross-sectional survey</td>
<td>Convenience sample of 880 registered nurses</td>
<td>Registered nurses employed on the inpatient unit at a Magnet facility</td>
<td>BARRIERS to Research Utilization Scale and Research Factor Questionnaire</td>
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<td>Karkos and Peters (2006)</td>
<td>Identify barriers to research utilization for nurses within a Magnet community hospital.</td>
<td>Descriptive, quantitative</td>
<td>Convenience sample of 275 staff nurses</td>
<td>BARRIERS scale</td>
<td>Factor analysis, Scheffé test</td>
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<td>Jolly (2002)</td>
<td>Determine nursing needs for developing research awareness.</td>
<td>Descriptive, qualitative</td>
<td>Convenience sample of 42 gynecology staff nurses at Queen’s Medical Center</td>
<td>Survey/questionnaire</td>
<td>Content analysis to identify key themes</td>
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Influence of journal club activity on education and change in practice is difficult to quantify. Outreach journal clubs have a high probability to change practice. There is a link between video journal club and increased patient care. Using evidence-based literature in the journal club can change practice.

Results lend support to Rogers’ Diffusion of Innovations theory. The journal club increased awareness of research and promoted a positive attitude regarding nursing research. Nurses have a better understanding of evaluating and implementing evidence-based research. Nurses’ beliefs and attitudes about research can be improved through organizational commitment to the use of research in practice.

Nurses have a firm interest in learning to understand research articles, having the opportunity to discuss research, and be involved in research opportunities that relate to their clinical practice. A journal club increases awareness, access, and understanding to use research.

Journal clubs encourage the reading of research, discussion of research, risk taking to implement new ideas, and mentoring.

Application of research into practice is encouraged through attendance at a gynecologic journal club. A journal club is useful in learning to critique and present research. Facilitation of a journal club should be provided by APNs.
Thompson et al. reported the need to provide nurses with the necessary skills and knowledge to locate, appraise, and implement research knowledge. In 5 articles, authors discussed improved attitudes toward research. The nurses became more positive about implementing change based on research findings, as well as having increased confidence in practicing at the bedside based on evidence. Camiah found that respondents in her research study felt more positive about using research in practice after applying strategies identified. Clifford and Murray conducted research that concurred with the findings of McQueen et al, reflecting positive attitudes toward research following an intervention such as the use of JCs, which allowed participants to have a better perception of the concepts involved in research. Fink et al. conducted a study to identify changes in nurses’ attitudes toward the utilization of research and discovered that nurses who participate in research activities such as JCs are more likely to use research evidence in practice because of the increased confidence in understanding research. An evident change in confidence levels was noted in the study performed by McQueen et al.

Some researchers discussed the importance of nurses having an increased knowledge about research. Fink et al. reported that 65% of nurses had an increased awareness of research findings. Jolly concurred with Fink et al. and determined a significant link between research attitude and understanding the processes of research utilization. Karkos and Peters determined that nurses who have an increased interest in research have the desire to increase their knowledge about research, and Milne et al. found that clinicians became more confident in using EBP in the delivery of care after they received appropriate education on how to appropriately disseminate research findings.

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Implementation

The CNS can augment patient outcomes through improving patient care and staff development through the implementation of EBPs. The study done by Grol and Grimshaw revealed positive effects from actively participating in a small-group interactive educational activity. The researchers also found that “Change is possible when a well-designed intervention is used.” In all 10 articles, either the application or promotion of evidence into the practice setting was discussed. During the research conducted by Camiah, new policies were drafted and circulated for implementation into practice. Respondents also acknowledged taking a fresh look at the way in which they practice care. Clifford and Murray revealed that nurses felt able to change practice through reading journals that provided new research findings that affected their practice. Fink et al found that 48% of respondents used research findings as a direct result from participating in research activities. Karkos and Peters affirmed implementing evidence-based changes into practice with the assistance of advanced practice nurses (APNs) and healthcare organizations. Jolly reported nurses having a lack of knowledge of how to implement change into practice based on research evidence. According to McQueen et al, JCs are providing the bridge between research and practice through promoting research in the clinical setting. In fact, Wilson and Collins reported that letters to journal editors have been published based on JC activities and contend that evidence-based literature can change practice.

Facilitation

“Burrows [1997, p.401] conducted a concept analysis on facilitation and arrived at the following definition: ‘Facilitation is a goal-oriented dynamic process in which participants work together in an atmosphere of genuine mutual respect in order to learn through critical reflection,’ this definition shows that the role of a facilitator is to work with groups of people toward change.” Kartes and Kamel suggest that, “The person leading the journal club needs to be familiar with how to conduct literature search, how to critique an article, and be familiar with policies and procedures in the facility,” the article continues, “An advanced practice nurse, such as a CNS may be best suited for this role.” Four researchers discussed the use of an APN as the JC facilitator. Camiah explained that poor research awareness could be remedied by proper facilitation and role modeling. Jolly also reported that the key nurses in facilitating research awareness need to act as role models. Thompson et al went on to state that the CNS is able to provide useful resources of information, and nurses trusted the advice provided by nurse specialists.

Two authors discussed organizational support as a key in facilitating research dissemination and implementation. It was noted within the study conducted by Fink et al that a barrier to research utilization is the organizational culture. According to Karkos and Peters, supporting nurses to use research can assist in advancing nursing practice and enhance the quality and efficiency of care provided. The hospital within the study of Karkos and Peters began a monthly research study group to cultivate interest in research knowledge.

DISCUSSION

This integrative review was restricted by the limited number of empirical studies on nursing JCs. Another constraint was the weak designs used in the studies. However, this integrative review advances nursing knowledge by showing that successful JCs ascertain 4 processes: understanding, circulation, facilitation, and implementation. It is evident from the findings that the CNS role is critical in each of these processes.

The 4 processes identified have similarities to the Promoting Action on Research Implementation in Health Service (PARIHS) framework. The framework, initially developed by Kitson et al and revised by Rycroft-Malone et al, has 3 essential elements that are key to successful implementation of evidence into practice. The 3 elements of the PARIHS framework are context, evidence, and facilitation. “Context is used to refer to the environment or setting in which the proposed change is to be implemented.” This fits with the themes of circulation and implementation. Evidence is “scientifically robust and matches professional consensus and patient needs.” The theme that coincides with this element is understanding. Facilitation is “a technique by which one person makes things easier for others.” In EBP, this is thought to “promote individual and organizational change.” This links closely with the theme of facilitation. The elements of the PARIHS framework were supported by the findings. Clinical nurse specialists can use the PARIHS framework as the platform in which to build a bridge linking research to practice.

To further understand how a journal club bridges the research-to-practice gap, this author has created a model for visual interpretation (Figure 1). The Bringing Research Into Diverse Groups Effectively (BRIDGE) model’s foundation to bringing research into practice is the PARIHS theoretical framework. The 3 constructs of the framework, context, evidence, and facilitation, support the structure of the bridge. The model begins with individual clinical expertise, evidence, and patient experiences as a representation of 3 important roads leading to bridging the gap between research and practice. The bridge starts with research, and a journal club is formed to create a change in practice through utilization of the 4 processes illuminated within this article: understanding, circulation, implementation, and facilitation. Once the research has been implemented into practice, the road is filled with improved patient outcomes, nursing excellence, and EBP. The model illustrates how JCs have the capability of transitioning research findings into best practices. Research conducted by nurses, disseminated to broad populations of healthcare practitioners, and ultimately translated into improved patient care is the goal of this model. The CNS acts as a liaison between the 2 fundamental elements of facilitation, the nursing staff and the administration.
providers, and then used by nurses who provide direct care to patients, represents the ideal triad of research-based clinical practice.\textsuperscript{15(p124)}

Nurses with increased awareness in research are more apt to apply research findings into practice. Journal clubs improve research understanding, increase the circulation of research knowledge, promote practice change, and require facilitators who are leaders, role models, and change agents, such as a CNS, to overcome the innate ability lacking to implement the evidence into practice.

IMPLICATIONS

“Rewards of a journal club include increased passion about research and excitement about what is happening in nursing and healthcare.”\textsuperscript{12(p101)} There is a need in nursing to continuously improve the quality of healthcare; the challenge is to find ways to overcome the barriers through utilization of innovative mediums. Exploration into JCs and other avenues to increase research utilization, dissemination of knowledge, and implementation of research into practice is warranted. Nurses need to increase their awareness of research to improve current practices, stimulate professionalism, and increase the quality of patient care, all of which can be accomplished with a well-developed JC. Lawson\textsuperscript{11} acknowledges that EBP encourages examination of nursing rituals and traditions and, when justified, allows implementation of new practices that are grounded in scientific research. However, to implement change, nurses must first know the basics of research utilization. Montgomery et al\textsuperscript{15} clearly identifies that, to make research utilization possible, nurses in all specialties must be educationally prepared on how to locate research findings.

CONCLUSION

Empirical research studies need to be conducted on JC accomplishments including implementation of the evidence into nursing practice. Clinical nurse specialists must be vigilant in conducting research that uncovers the most advantageous methods used to bridge the research-to-practice gap. Future research could be conducted on specific constructs of the framework. For example, research could be conducted solely on the CNS role in understanding research or being the facilitator of a journal club.

Research must also be incorporated into nursing programs across the world for future nurses to understand, appreciate, use, and implement research. One way to begin is through the initiation of a journal club. The PARIHS framework along with the BRIDGE model can be used to initiate or transform a journal club. As APNs, we need to look toward the future of nursing, and EBP is a necessity in defining nursing as a profession. “As hospitals seek to promote evidence-based nursing practice and improve the quality of bedside nursing care, formation of a nursing journal club can be one strategy to accomplish both goals.”\textsuperscript{19(p390)}

References marked with an asterisk (*) indicate studies included in the integrative review.

References