

ORIGINAL ARTICLE

Nursing Journal Club as a Tool to Facilitate Evidence-Based Practice: Participant's Feedback

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Abstract: *Background and aim: Nursing journal clubs have a proven value in nursing education and continuing education, which has expanded widely in the promotion of evidence-based clinical care in recent years. This study aimed to evaluate the clinical nursing journal clubs from the viewpoints of nurses. Methods: This descriptive study was conducted from July 2019- October 2020. This study was conducted in two phases, consisting of designing the format and flowchart and implementing nursing journal clubs and the second phase was evaluation. Results: Format and executive flowchart prepared by the research team and reviewed and approved in the group. In terms of evaluation, minimum (33) and maximum (165) scores with a mean $\pm$ SD total score of 123.49 ± 19.91 calculated for nursing journal clubs indicate an optimum quality. Conclusions: The qualities of nursing journal clubs were evaluated to be favorable. Accordingly, authorities and planners should consider appropriate actions to facilitate Nursing journal clubs, such as credit points in rank promotion for faculty members, and inclusive in continuing education privileges for nurses, to adapt these activities to the roles of the clinical faculty and the benefits of this educational method in nursing.*

Keywords: *journal club, nursing, evidence-based practice, evidence-based nursing*

INTRODUCTION

As the nursing profession is expanding, the nursing education system should educate nurses who can function effectively and efficiently in therapeutic settings that are constantly changing and subject to huge volumes of information [1,2]. Nowadays, the establishment of a bridge between theory and clinic has become one of the major challenges [3]. A pivotal action to achieve this goal is the ability to transfer and apply research in clinical settings [1,4].

Moreover, learning and updating methods of knowledge and skills have changed in the present world and learning has shifted from individual guidance to the group learning process [5]. Meanwhile, the journal club has a proven value in both nursing and continuing education and has expanded widely in the promotion of evidence-based clinical care (EBCC) and clinical collaboration in recent years [6].

To become familiar with and promote evidence-based research and practice, nurses need to know and apply new health-related texts. Over the past 25 years, substantial advances have been made in the models and frameworks of Evidence-Based Nursing (EBN) to replace processes in the health system, and the results of the research are appropriately used in clinical settings to maximize patient safety [3].

Nurses should be prepared to apply evidence-based practice in decision-making about the clinical care of patients [7,8]. EBN is generally the process of systematic diagnosis, meticulous and accurate evaluation, and subsequent dissemination of using research findings to influence clinical practice. It is continued through changes in standards of care that can lead to positive changes in clinical interventions [9].

Journal club facilitates the learning process in the context of clinical problem-solving and enhances the skills of criticism [5].

This strategy is based on the principles of adult education, active participation in learning and peer learning, using the concept of intimate class, providing the opportunity to shape informal discussions, learning to read and review nursing literature, and encouraging open participation in journal clubs [7]. The time to use journal clubs varies more widely in the nursing profession [10].

Nursing journal clubs are usual in Iranian schools, but in the clinical setting have launched for the first experience in line with the development plan on the roles of clinical faculty members at Tabriz University of Medical Sciences. Therefore, this study was conducted to evaluate the clinical NJCs at Tabriz University of Medical Sciences during 2019-2020 and evaluated the clinical nursing journal clubs from the viewpoints of nurses.

METHOD

This descriptive study was conducted from July 2019 to October 2020 at the School of Nursing and Midwifery and two affiliated hospitals of Tabriz University of Medical Sciences, Tabriz, Iran. Inclusion criteria were willingness to attend nursing journal clubs. Exclusion criteria were voluntary withdrawal from the study and do not answer more than 20% of the questions in the questionnaire. One month before the implementation of nursing journal clubs, the relevant hospitals were informed about the meeting time. Attendance was open to all nurses.

For data collection, the NJC evaluation tool was designed by considering factors influencing the success of NJC according to Kirkpatrick's model [2,11]. NJC quality assessment questionnaire consisted of 33 questions in four domains of satisfaction (18 items), change in knowledge (7 items), change in behavior (4 items), and organizational outcome (4 items). The tool was scored on a 5-point Likert scale from strongly agree to strongly disagree (scoring from 5 to 1).

The Kirkpatrick model is an accepted and widely used framework for the evaluation of educational programs. This model was introduced by Kirkpatrick (1950) and has since been modified by many people, but its four-step structure has remained unchanged.

The model has been described as a comprehensive, simple, and practical model for most educational situations and is recognized by the majority of experts in this field. Kirkpatrick defines evaluation as the effectiveness of a curriculum and divides the evaluation process into four levels (feedback, learning, behavior, and results) [12].

Ten nursing faculty members reviewed the questionnaire for face and content validity. Their comments were applied. CVR

of all items was above 0.65 and CVI was above 0.8. The reliability of the tool was calculated and confirmed by Cronbach's alpha (0.95).

This study was conducted in two phases. The first step was to attain the format and flowchart of clinical NJC implementation. Initially, a committee was formed consisting of 3 faculty members and 2 doctoral students. A related comprehensive review of articles published from 2000 to 2018 on databases (SID, Iran Doc, Google Scholar, PubMed, Medline, Scopus, Cochrane Library, Science Direct, and CINAHL) was done. Also, 5 cases of NJC PowerPoints on the Internet were repeatedly assessed and analyzed precisely. Thus, three duties (a - identifying instructions, b - designing the flowchart, and c - determining template content of PowerPoint for NJC) were carried out in the committee for clinical NJC teaching events. Then, the same committee held one-day workshops to inform all members of different departments and all Ph.D. students at Tabriz school of Nursing and Midwifery (n= 40 participants).

Through the workshop NJC fully (history of JC, definition, aim and objectives, outcomes and benefits, types of JC, etc.) was explained and then discussed in the group. Received comments were applied and clinical NJC instructions, flowchart [13], and template PowerPoint were approved at the end of the workshop. Necessary coordination was first made with the hospital authorities, and then NJC sessions were held in two educational centers' of Shahid Madani and Sinai in Tabriz based on an agreement. NJC sessions were set up in a conference hall in hospitals affiliated with Tabriz University of Medical Sciences during 2019-2020.

In the second phase, the viewpoints of faculty members, nurses, charge nurses, nursing supervisors, nurse managers, and nursing students on these sessions were evaluated using a questionnaire, at the final ten minutes of JC. The above two hospitals were selected as research environments because there were clinical faculty members therein and NJC was implemented as their related task.

The Ethics Committee of Tabriz University of Medical Sciences, Tabriz, Iran, approved this study (code: IR.TBZMED.REC. 1397.643.). The study aim was explained to participants and they were ensured of the confidentiality of the data, the voluntariness of participation in the study, and their freedom to withdraw from the study at will.

The data were analyzed using the SPSS software v. 21.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics (mean, and standard deviation) were used for presenting scores for each domain and the whole domains of the questionnaire. $P < 0.05$ was considered statistically significant.

RESULTS

In the first phase, implementation format and flowchart were attained for clinical NJC as shown in Table 1.

In the second phase, several NJC sessions were evaluated in the two teaching hospitals. NJC topics were “contamination of blood sample cultures (two articles)”, “best practice in wound examination (three articles)”, and “delirium nursing protocol after coronary artery bypass graft and cardiac surgery (three articles)”. The frequency of NJC sessions by a faculty member scheduled at least once in the trimester, with repeated

program twice a week (an observer is mandatory for the first time), and 1-2 hours per subject. The results of the evaluation of the face-to-face NJCs held at Tabriz University of Medical Sciences are presented in Table 2.

Minimum and maximum scores for the questionnaire can be 33-165, with a mid-range of 99. A total mean (SD) score of 123.49 (19.91) was reported for clinical NJCs in the current study. The quality of all sections was desirable in the participants’ views, and a desirable quality was evaluated for the NJC implementation.

Table 1: Flowchart of clinical NJC sessions at Tabriz School of Nursing and Midwifery

No.	Activity
1	Problem-finding through focus group sessions, virtual sessions, and PDPs
2	In the event of several issues, prioritizing them through focus group sessions or by Delphi technique
3	Selection of lecturer and assistants for holding NJC
4	Searching and selecting articles related to the topic from those of the last 5 years, systematic reviews, meta-analyses, randomized clinical trials, etc. indexed in valid databases of ISI, PubMed, Cochrane, and Scopus
Holding a meeting of attending knowledge committee, auditing lecturers’ reports on the prior steps, and deciding on steps 5 and 6	
5	Critical evaluation of articles in focus group sessions at the Faculty Determination of articles and journal club type (content or methodological evidence-based practice) Determination of core members (at least five people), and the day, time, venue, and registration Designation of a leader and supervisor for monitoring NJC sessions Determining a coordinator of NJC meetings with clinical employees Regular holding of NJC meetings (face-to-face or webinar sessions) Attendants at NJC session: Undergraduate, postgraduate, and doctoral nursing students, experienced and novice clinical nurses, head nurses, clinical and educational supervisors, and if necessary statistics counselor
6	Reserving venue and then notifying Mr. ... at least one week in advance to record film, photos, and news of the meetings
Preparing a schedule planned for a one-hour presentation: A review and a one-time exercise by the lecturer and assistant, review of articles by lecturers (25 minutes) + review of articles by core individuals (total 20 minutes for five people) + commentary, and exchange of participants’ thoughts with lecturers (totally 15 minutes up to five people)	
7	Implementation of NJC meeting: - Presentation, evaluation, and discussion of articles and general conclusions; - Preparing report (minutes of the meeting: MoM) - Notification of summary to meeting participants and related audiences
8*	Preparing evidence-based guidelines and protocols or revising existing guidelines based on literature review and focus group sessions at the faculty and hospital
9*	Presenting developed/revised guidelines, protocols, and standards to the secretariat of the operating council for final consensus and approval, then, if necessary, approval by the vice-chancellor of the university
10*	Implementation of evidence-based guidelines and protocols in nursing practice
11*	Evaluation of results

* Steps 8-11 apply to 10% of NJCs.

Table 2: Mean (standard deviation) of clinical NJCs quality held by nursing faculty members

Domain(range)	Mean (SD)
Satisfaction (18-90)	10.15 (67-75)
Change in knowledge (7-35)	27.15 (5-47)
Change in behavior (4-20)	16.24 (3-22)
Organizational outcome (4-20)	11.69 (2-66)

DISCUSSION

EBN is the use of best research evidence together with clinical expertise and skills by considering the patient's needs and

status. In general, four components are involved in EBN decision-making, namely research evidence, patient values, clinical skills, and resource availability [14].

Nowadays, evidence-based education is also gaining ground with the aim of serious, explicit, and rational use of the best evidence to make decisions about nursing education. There is also an emphasis on the inclusion of evidence-based curricula in education [15]. Nursing curricula have included journal clubs, case presentations, group discussions, and rounds in the latest edition of nursing educational techniques revision [16]. Unfortunately, no clinical application of these widely used educational techniques facilitating evidence-based learning and practice is available in the present clinical setting of Iran.

Various studies demonstrate that journal club is accepted as a mechanism the recommendations of which are reflected in evidence-based practice. Journal clubs are not only useful in academic settings but are also valuable in clinical settings.

The findings of this study revealed a desirable evaluation of total quality scores for NJC implemented by the participants in meetings. The repetitive features of NJC implementation were considered to be successful in many respects. However, little is known about the best guidance and implementation to achieve the greatest educational benefit [3]. Besides, there is no standardized method of running journal clubs and evaluating the knowledge and outcomes achieved by the participants, nor a method of using that knowledge in practice [15].

The use of a questionnaire to determine the interest and personnel involvement in planning can help motivate participation. Our questionnaire also contained a question, in the end, asking participants to determine and comment on future topics for the implementation of NJC.

There were also some limitations, such as the lack of U-shaped space to make eye contact in NJC, the lack of reception, and no presentation of summaries to departments for employees not present at the meeting, which reduced the overall implementation quality.

Selection of journal club members from the same discipline or with interests and commonalities in a particular clinical area, long-term journal club goal setting with periodical revisions, setting goals tailored to the articles under review, acquisition skills, and selection of case base clinical articles of interest by all participants are all the factors that can help motivate participation and benefit participants. A journal club should be

specified with frequency at predetermined dates, preferably monthly, at an hour appropriate to all members. Motivational factors should be applied to participants. Promotional strategies, such as the use of technology or the presentation of a brief discussion, are also helpful for all staff to access journal club achievement [1].

Limitation

Our study included a small sample size. However, we did identify a statistically significant change in each of the domains assessed.

CONCLUSION

Evidence-Based Nursing (EBN) is now one of the main goals and concerns of nursing, and one of the main objectives of Nursing Journal Clubs (NJC) is to improve EBN practice. Nursing schools should prepare students for entry to the clinic to be able to identify clinical care challenges for nurses, and critically evaluate nursing studies. For rich clinical education in nursing, NJCs should be considered as one of the essential parts of the nursing curricula before graduation.

In this study, the authors attained a format and flowchart for the implementation of NJC by clinical nursing faculty members. Based on defined goals, NJC was organized and evaluated with the related tool. If necessary, deficiencies and shortcomings will be improved in the continuous and extensive assessments throughout the country.

NJC is a favorable method of education in the healthcare professions that can improve searching evidence for practice and the use of evidence in clinical practice. Therefore, this approach should also be used more extensively in managing nursing students' educational programs and in continuing education for the training of employed nurses.

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Disclosure statement

The authors declare they have no competing interests.

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