



Nursing Grand Rounds: An Integrative Review

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Abstract

Context: Nursing grand rounds (NGR) is a method to improve the nursing image and shed light on the process of developing professionalism in nursing. It aims at promoting evidence-based practice and offering an effective strategy to positively change patient care. In Iran, ground rounds is a relatively new concept; thus, there is little information about this strategy and its advantages and implementation. This study aimed to conduct an integrative review and classify the existing studies on NGR.

Evidence Acquisition: The authors searched the keywords of ground rounds, nursing, and evidence-based practice in various databases including SID, Irandoc, Google Scholar, PubMed, Medline, Scopus, Cochrane Library, and ScienceDirect. Studies carried out between 2000 and 2019 fell within the scope of this study. The modified version of Cooper's five-step approach to literature review was used to examine and integrate the existing NGR knowledge. These steps included problem identification, literature search, data evaluation (assessing the quality of data), data analysis and interpretation (summarizing the data), and result presentation.

Results: The guidelines of Armola et al. (2010) were used in this study. Twelve studies meeting the inclusion criteria were reviewed and the results were presented in two areas of NGR benefits and implementation. Among the most important advantages of deploying NGR, one can point out that it provides an innovative and dynamic way to develop continuous and evidence-based learning to improve patient outcomes.

Conclusions: NGR supports evidence-based nursing and more importantly, creates a social setting for learning not only science but also the art of nursing. Therefore, health care organizations should consider NGR as a way to demonstrate their commitment to developing nursing and evidence-based education and practice.

Keywords: Grand Rounds, Nursing, Evidence-Based Practice, Review Study

1. Context

With the evolution of nursing as a profession, evidence-based nursing research and practice have also improved (1). Nowadays, dynamic clinical environments create expectations for nurses to continue their education, use evidence to improve their patient outcomes, and demonstrate professional competence in their practice. Given that evidence-based practice is gaining ever-increasing importance in contemporary nursing decisions, health care systems should establish rules for nurses to consistently use the best evidence. Various studies show that grand rounds are one of the potential facilitators to provide nurses with up-to-date evidence (2-4).

Some of the factors affecting patient care include effective decision-making, teamwork, evidence-based practice, staffing, and job satisfaction. Despite that grand rounds can optimize these factors and affect patient outcomes,

they have not been widely used by nurses who may show the lowest self-confidence in decision-making, autonomy, and appropriate role selection among other members of the health team. In addition, despite nurses' access to several sources of information, the use of evidence in nursing and clinical decision making is limited. Studies in several countries have shown that nurses put a great deal of emphasis on information obtained from human sources; in other words, nurses who are clinically experienced are the preferred source of acquiring information. Therefore, much effort needs to be made to promote the use of evidence in clinical practice. Implementing grand rounds is an example in this context (5, 6).

The term nursing grand rounds (NGR) was first used in 1964 by Mercadante and Ross. The reasons for launching NGR include providing opportunities for learning from experienced colleagues, cultivating nursing skills, reducing staff isolation, and promoting professional development

(7).

One strategy to raise nurses' competence and confidence is to administer NGR (5). It is an educational strategy that considers the patient's conditions for gaining direct and useful experiences. Moreover, it paves the way for nurses to share nursing care measures of a specific case or group of cases. NGR provides a regular setting for clinical learning and studying evidence-based and patient-based nursing. These courses have a long track record in medical education and professional development. Moreover, adopting NGR is an effective strategy for initiating change in patient care (2).

Although the definitions proposed for NGR may be slightly different, the authors regard it as a learning event led by nurses to familiarize the audience with evidence-based practice (2). Patricia Benner's theory is commonly used as a guiding conceptual framework for the development of NGR. Accordingly, nurses work side by side in five levels: novice, advanced beginner, competent, proficient, and expert. Nurses' involvement with different levels of knowledge and skills in NGR helps resolve the problems and increase the proficiency and skills of novice nurses inasmuch as expert nurses present their judgment about a given problem and make the subject transparent. Therefore, the process of reaching the expert level is facilitated for novice nurses (8). Consequently, NGR provides training opportunities for nurses to put evidence into practice and demonstrate their ability and responsibility in practice (5).

To the best of our knowledge, no study had been conducted in the field of NGR in Iran. Therefore, this study aimed to conduct an integrative review to combine the results of available NGR studies. Two questions were examined in this study: How is NGR implemented and what are its benefits?

2. Evidence Acquisition

After obtaining approval from the Ethics Committee of Tabriz University of Medical Sciences (IR.TBZMED.REC.1397.643), the researchers undertook an integrative review of NGR. The modified version of Cooper's five-stage approach of integrative review by Whittemore and Knafl (2005) was used to review and combine the existing knowledge of NGR. These modified steps included problem identification, literature search, data evaluation (assessing the quality of data), data analysis (summarizing the data), and result presentation (9, 10).

The first stage was problem identification. At this stage, based on the initial search and researchers' viewpoints, it was necessary to review the relevant literature to understand more about the implementation of NGR and

its benefits. To attain this objective, the present study was conducted based on an integrative review.

The second stage included a literature search (10). In reviewing the literature dating from 2000 to 2019, various databases including SID, Irandoc, Google Scholar, PubMed, Medline, Scopus, Cochrane Library, and ScienceDirect were searched using keywords including grand rounds, nursing, and evidence-based practice. Articles and studies published in English were examined. Searching for Persian texts in the field of grand rounds yielded no result.

In the initial search, 44 articles were found. After the resulting papers were carefully reviewed based on the purpose of the study and eliminating unrelated and repeated articles, the full texts of 12 articles were finally chosen (Table 1).

Table 1. Search and Selection Process

	Number of Articles
Initial search	44
Duplicates	3
Inaccessibility to the full text	4
Unrelated studies	25
Selected sources	12

In the third stage, data evaluation, 12 articles were examined. Six descriptive criteria related to the methodological structure (modified by Gazarian 2013 and Bowling 2014) were used to assess the quality of the selected articles (11, 12). The six criteria included a clear description of aims and objectives, adequate description of the study design, selecting appropriate research methods, providing explicit theoretical framework, presenting the study limitation, and discussing the implications of the study. All 12 articles were incorporated in the study and were rated on a three-point scale ("yes", "poor", "not reported") based on the aforementioned six criteria (Table 2).

The fourth stage was data analysis and interpretation (19). First, all articles were studied for an overview of the content. After the extraction of data, all articles were summarized (Table 2) by author(s), year, title, and conclusion. Next, the extracted data were analyzed and interpreted (20).

3. Results

The 12 articles reviewed in this study were published between 2005 and 2019, and all of them studied NGR.

According to the reviewed studies, the benefits of implementing NGR are as follows:

Table 2. Description and Evaluation of 12 Eligible Studies

Author(s), Year (Ref.)	Title	Quality Appraisal Criteria ^a	Conclusion
Salinas et al., 2019 (3)	Sustaining nursing grand rounds through interdisciplinary teamwork and inter-organizational partnership	Aims and objectives clearly described (y); study design adequately described (y); research methods appropriate (y); explicit theoretical framework (nr); limitations presented (p); implications discussed (y)	NGR is an excellent strategy for knowledge development, evidence-based research, and practice. Moreover, it supports professional growth and improves collaboration and cooperation among nurses.
Smyth and Abernethy 2016 (13)	Sustaining nursing and midwifery grand rounds in a regional Australian health service	Aims and objectives clearly described (y); study design adequately described (p); research methods appropriate (y); explicit theoretical framework (nr); limitations presented (p); implications discussed (y)	NGR is an innovative and professional practice for nursing and midwifery.
Laibhen-Parkes et al., 2015 (2)	Nursing grand rounds: A strategy for promoting evidence-based learning among pediatric nurses	Aims and objectives clearly described (y); study design adequately described (p); research methods appropriate (y); explicit theoretical framework (nr); limitations presented (nr); implications discussed (y)	NGR is a creative way for nurses to keep their information up-to-date based on new evidence and knowledge gained from patient care.
Foley et al., 2014 (14)	Collaborative care for children: A grand rounds presentation	Aims and objectives clearly described (y); study design adequately described (p); research methods appropriate (y); explicit theoretical framework (nr); limitations presented (p); implications discussed (p)	NGR supports the improvement of students' health care management and ensures their academic success and ultimately, promotes the overall community health.
Sherrill, 2012 (6)	Using nursing grand rounds to enforce quality and safety education for nurses competencies	Aims and objectives clearly described (y); study design adequately described (p); research methods appropriate (y); explicit theoretical framework (nr); limitations presented (nr); implications discussed (p)	NGR is an interesting and easy way to encourage participation in professional development. It also enhances critical reasoning skills in the field of nursing care.
Lanham, 2011 (15)	Nursing grand rounds as a clinical teaching strategy	Aims and objectives clearly described (y); study design adequately described (p); research methods appropriate (y); explicit theoretical framework (nr); limitations presented (nr); implications discussed (p)	NGR can be used as a clinical education strategy for nursing students.
Weber et al., 2011 (16)	Under pressure: Pulmonary arterial hypertension, a mother's struggle	Aims and objectives clearly described (y); study design adequately described (y); research methods appropriate (y); explicit theoretical framework (nr); limitations presented (nr); implications discussed (p)	NGR is a way for nurses to present interesting clinical cases with evidence-based practice.
Armola et al., 2010 (1)	A guide to developing nursing grand rounds	Aims and objectives clearly described (y); study design adequately described (y); research methods appropriate (y); explicit theoretical framework (nr); limitations presented (p); implications discussed (y)	NGR is a nursing practice that provides nursing care for a case or group of cases.
Gardner et al., 2010 (17)	Innovation in clinical learning for the acute hospital environment: Nursing grand rounds	Aims and objectives clearly described (y); study design adequately described (y); research methods appropriate (y); explicit theoretical framework (nr); limitations presented (y); implications discussed (y)	NGR is a ground for clinical learning. It also provides evidence-based and patient-centered nursing.
Wolak et al., 2008 (18)	Nursing grand rounds as a medium for the continuing education of nurses	Aims and objectives clearly described (y); study design adequately described (y); research methods appropriate (y); explicit theoretical framework (nr); limitations presented (y); implications discussed (y)	NGR provides an opportunity for the professional development of clinical nurses.
Furlong et al., 2007 (8)	Implementing nursing grand rounds in a community hospital	Aims and objectives clearly described (y); study design adequately described (y); research methods appropriate (y); explicit theoretical framework (y); limitations presented (nr); implications discussed (y)	In nursing grand rounds, knowledge sharing leads to professional growth among nurses. Furthermore, the attendance of nurses with different levels of knowledge leads to problem-solving and acquiring greater skills and mastery among novice nurses.
Lannon, 2005 (7)	Nursing grand rounds: Promoting excellence in nursing	Aims and objectives clearly described (y); study design adequately described (y); research methods appropriate (y); explicit theoretical framework (y); limitations presented (nr); implications discussed (y)	NGR provides an opportunity for nurses to acquire new skills or upgrade their previous skills. It supports evidence-based practice and creates a social learning environment for learning not only the science of nursing but also the art of nursing.

^aScale: y = yes, p = poor, nr = not reported.

- Promoting academic environment and atmosphere (15)
- Presenting scientific findings and motivating students (15)
- Making students' acquaintance with professors' eminent characteristics and behaviors (15)
- Supporting career development and growth opportu-

- nities (18)
- Providing learning opportunities for nurses and enhancing participants' knowledge and skills by exchanging key ideas (1)
- Improving nurses' independence, their participation in decision-making, and collaboration with other health-care professionals (1)

- Enhancing reasoning, decision-making, and professional ethics and communication (21)
- Promoting nurses and their nursing profession (2)
- Fostering lifelong learning culture (18)
- Creating an environment for nurses to share clinical expertise and practice to improve patient outcomes (17)
 - Using solid evidence to solve performance and evidence-based nursing problems (2)
 - Identifying staff who specialize in patient management (1)
 - Identifying actual and potential barriers to effective care (6)
 - Improving patient outcomes (6)

Despite all these benefits, one disadvantage of grand rounds is the inadequate participation of all nurses in discussions (22). Given the recent emergence of this strategy in Iran, it is challenging to persuade and encourage people to participate in NGR. Several techniques are proposed to address this issue: normalizing NGR to make it a routine, catering, advertising, explaining NGR benefits, and incentivizing faculty members and nurses by granting higher scores to their professional status (23).

3.1. NGR Implementation

Prior to starting the program, a team is required to be led by a faculty member (24). The participants can be faculty members, nurses (clinical and non-clinical), and nursing students at different levels of education (6). Other members of the patient care team could also participate in interdisciplinary grand rounds (25).

The topics for discussion should be selected from patient and clinical practices or they could be rare, interesting, and challenging subjects. It is advised to hold a grand round at least once a month with a duration of at least one hour and a maximum of two hours (26).

Laibhen-Parkes et al. (2015) introduced a framework for NGR that consisted of four basic elements: (1) Reviewing the literature that should reflect a comprehensive, up-to-date search of texts and illustrate the status of the research topic or issue; (2) A guest speaker or expert to familiarize the audience with the topic and promote interdisciplinary collaboration; (3) Case studies that could address the time and clinical outcomes of a clinical problem (aiming at stimulating critical thinking and problem-solving ability and thus, raising nurses' understanding of problems and the process of a specific disease); and (4) Using webinar technology that is an online training presentation through which participants can raise their comments and questions. In fact, webinar facilitates simultaneous communication in online learning environments. It also allows for interaction between users via transferring audios and videos and sharing applications (2).

3.2. NGR Guidelines Developed Using the Case-Study Method

Reviewing the literature on NGR and its implementation, we found a number of guidelines. Among those adopting the case-study method, the guideline by Armola et al. (2010) was the most comprehensive one (Box 1).

Box 1. Guidelines for Nursing Grand Rounds

Guidelines	
Introduction	
	Selecting the main topic and providing justification for its selection
	Determining presenters and participants
	Observing ethical issues
Presenting a case study	
	Presentation using the situation-background-assessment-recommendation (sbar) method
	Description of the relevant pathophysiology
	Explaining nursing diagnoses
	Describing multi-faceted learning approaches including audio and video tools and nursing presentations
Elaborating challenges	
	Discussing challenges that clinical nurses confront
	Discussing challenges that the patient and his/her family confront
	Discussing interdisciplinary collaboration
Solutions and approaches	
	Solutions that clinical nurses have used to solve the problem
	Evaluating the results and their implications
	Results of relevant studies and evidence-based nursing
Summing up	
	Explaining the clinical practices for the nurses
	Explaining the positive effects that patient care has on nurses
	Discussing the possible need for changing the care plan
Introducing sources	
	Encouraging participants to do further reading

4. Discussion

Based on the results of this study, it can be concluded that NGR is a creative way of keeping nurses up-to-date in terms of existing nursing evidence (2). The results of the study by Laibhen-Parkes et al. (2015) revealed that NGR could help busy clinical nurses to know about recent body of research and as a result, bridge the theory-practice gap. In another study by Sherrill (2012), the results showed that insofar as deploying innovative approaches to student learning is critical, grand rounds can be an ideal learning tool and provide learning opportunity for nursing students.

Using a pretest-posttest design to determine the effectiveness of NGR on the satisfaction of nursing staff in the surgical ward, Gardner et al. (2010) observed no significant difference between pretest and posttest. However, their observational results at the local level suggested that NGR is a creative and favorable operational approach to nursing clinical practice and its professional development.

The aim of NGR is to improve patient outcomes by integrating clinical nursing practice with scientific research and evidence-based nursing knowledge. In this regard, Armola et al. (2010) stated that NGR is beneficial to both nurses who hold and run grand rounds and those who attend them. In addition, by conducting a survey of nurses who participate in NGR, one can further examine the appropriateness of implementation, goals, topics, and learning requirements of such programs. The effectiveness of knowledge obtained from NGR can also be assessed through a pretest-posttest design (1).

Today, with the advent of technology and the ever-increasing use of the Internet, virtual grand rounds (VGR) can satisfy larger audiences anywhere in the world. VGR is based on the Internet for nursing education, and its overall goal is to improve nursing performance. It also involves lower costs due to the use of mobile technology (4, 21, 27).

Interdisciplinary grand round programs are also attracting much attention worldwide. Not only does interdisciplinary education enable individuals to learn from one another, but also helps improve patient outcomes by enabling collaboration. Interdisciplinary grand rounds should start from the beginning of training courses and extend to professional practices (25). Therefore, the leaders of this profession can utilize this strategy to accelerate the evolution of the nursing profession and improve the nursing image. Furthermore, it assists nursing practitioners to upgrade their knowledge and skills.

The limitations of this study included inaccessibility to the full text of several articles and not reviewing articles in languages other than English.

5. Conclusions

This is the first study of NGR conducted in Iran. It could provide guidelines for further research in this field. NGR is a creative and dynamic way of sustained evidence-based learning to improve patient outcomes. Health care authorities should recognize NGR as a way of demonstrating their commitment to the development of evidence-based nursing education and practice. This study described the concept of NGR, which is still a new strategy in Iran. In this regard, the goals and benefits of implementing NGR were elaborated and a standard practice guide was proposed. It is hoped that by implementing such strategies throughout

the country, we would take a step towards developing the nursing profession.

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Footnotes

Authors' Contribution: Study design: Vahid Zamanzadeh and Leila Valizadeh; data collection: Vahid Zamanzadeh, Leila Valizadeh, Maryam Namadi, and Samaneh Alizadeh; data analysis: Vahid Zamanzadeh, Leila Valizadeh, and Samaneh Alizadeh; study supervision: Vahid Zamanzadeh and Leila Valizadeh; manuscript writing: Samaneh Alizadeh and Abdullah Rezaee; critical revisions for important intellectual content: Vahid Zamanzadeh and Leila Valizadeh.

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