Clinical Conferencing as a Teaching Approach: A Literature Review

Athabasca University

Joy Howard
Abstract

Clinical conferencing is a teaching approach that has been utilized by nurse educators for many years. The clinical conference is believed to provide students with opportunities to develop problem solving, critical thinking and clinical judgement. A literature review of the clinical conference as a current teaching approach will be undertaken. A search of relevant evidence on the clinical post conference will be categorized into themes as they relate to the effectiveness of the clinical conference as a teaching approach, the importance of questioning in the post clinical conference and the increasing use of online clinical conferencing as a tool. Specific questioning strategies that take place in the conference show a wide variability with research indicating lower level questions by instructors overrepresented. Further research is needed to provide quantitative evidence to determine the correlation of clinical conference on achievement of clinical outcomes.

Key words: clinical conference, nurse educators, teaching approach
Clinical Conferencing as a Teaching Approach

The role of the clinical nurse educator is complex. While the development of effective clinical knowledge and abilities is essential for the student, clinical expertise also involves critical decision making skills. For effective clinical teaching, educators must use a variety of strategies and approaches to learning that facilitate the development of clinical judgment and decision making. Clinical conferencing is a teaching approach that has been utilized by nurse educators for many years. The clinical conference is believed to provide students with opportunities to develop problem solving, critical thinking and clinical judgement. Clinical teaching and learning take place in a social context where there are shared experiences of teacher and students carried out in an environment of support and trust. Clinical conferencing fosters this type of cooperative learning and may assist in developing communication skills (Gaberson & Oermann, 2010).

In this paper, a literature review of the clinical conference as a current teaching approach will be undertaken. An evidence based search will be utilized. Literature will be chosen for relevance to the clinical conference in nursing education particularly as it relates to three thematic areas: the effectiveness of the clinical conference as a teaching approach, the relationship of questioning used in conferencing to the development of critical thinking in students as well as the emerging role of technology in online clinical conferencing. Gaps in current practices and implications for nurse educators will be explored.
Search for Evidence

Evidence based practice advocates that clinicians search the primary literature to find answers to their clinical question. A survey of pertinent literature is needed to build a base for decision-making on the clinical practice in question. A search strategy for this review included published journal articles, books, systematic reviews and existing guidelines, with a preference for those published in recent years. Seminal works from earlier years were also included in this review. The search was limited to English language research literature. Large, unfiltered databases such as MEDLINE, PubMed and CINAHL, available through the AU library, were employed to access the primary and secondary literature associated with the clinical conference as a teaching approach in nursing education. Medical Subject headings (MeSH) and keywords for an advanced search were “clinical conference”, “nursing education” and “communication” and “on-line technology”. General Internet search engines and websites of key organizations were scanned to locate additional publications.

A search of sources associated with the clinical conference as a teaching strategy generated a wealth of published studies. Articles that met the following inclusion criteria were chosen for review: mixed methodologies/ qualitative research studies, peer reviewed articles and articles that addressed a focused question. Findings were assessed for relevance and applicability. See Table A.
<table>
<thead>
<tr>
<th>Article</th>
<th>Year</th>
<th>Search Engine</th>
<th>Research Type</th>
<th>Sample</th>
<th>Instrument</th>
<th>Thematic Association</th>
<th>Relevance</th>
<th>Applicability</th>
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<td>Hermann, M</td>
<td>2006</td>
<td>AU Database</td>
<td>Research study</td>
<td>8 students</td>
<td>Descriptive student feedback</td>
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<td>1998</td>
<td>AU CINAHL</td>
<td>Research study</td>
<td>6 nursing students</td>
<td>Descriptive Interpretive</td>
<td>Online clinical conferencing</td>
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<td>Cooper C.et al</td>
<td>2004</td>
<td>AU CINAHL</td>
<td>Quasi experimental</td>
<td>77 students</td>
<td>Clinical evaluation tool</td>
<td>Online clinical learning</td>
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<td>Hsu, Ll</td>
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<td>AU CINAHL</td>
<td>Research study</td>
<td>20 post clinical conferences</td>
<td>Qualitative observation open ended questionnaire</td>
<td>Theory/Practice Role of Educator</td>
<td>Yes</td>
<td>Yes</td>
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<td>Iswasiw, C. Et al</td>
<td>1990</td>
<td>PubMed</td>
<td>Peer reviewed article</td>
<td>-</td>
<td>-</td>
<td>Conference as a tool to bridge theory/practice</td>
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<td>Yes</td>
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<td>Profetto-McGrath</td>
<td>2004</td>
<td>CINAHL</td>
<td>Peer Reviewed article</td>
<td>30 educators /314 students/30 confer.</td>
<td>Descriptive</td>
<td>Role/skills of Educator in Conferencing</td>
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<td>Letizia, M</td>
<td>1998</td>
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<td>Research study</td>
<td>3 baccalaureate programs</td>
<td>Descriptive survey- Likert scale</td>
<td>Discourse strategies and critical thinking</td>
<td>Yes</td>
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<td>Sellappah, S. et al</td>
<td>2001</td>
<td>Science Direct/CBU</td>
<td>Research study</td>
<td>26 clinical teachers</td>
<td>Descriptive</td>
<td>Role of Educator in questioning</td>
<td>Yes</td>
<td>Yes</td>
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<td>Article</td>
<td>Year</td>
<td>Search Engine</td>
<td>Research Design</td>
<td>Sample</td>
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<td>DeYoung Teaching nursing</td>
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<td>Effectiveness of conferencing</td>
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<td>Matheney</td>
<td>1969</td>
<td>Ovid</td>
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<td>Seminal article</td>
<td>Role of Pre/Post Conferences –</td>
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<td>Wink, D.</td>
<td>1993</td>
<td>CINAHL</td>
<td>Journal Article</td>
<td>-</td>
<td>Based on doctoral dissertation</td>
<td>Questioning in post clinical conference</td>
<td>Yes</td>
<td>Yes</td>
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<td>Wink, D. The effective clinical conference</td>
<td>1995</td>
<td>CINAHL</td>
<td>Journal Article</td>
<td>-</td>
<td>Nil</td>
<td>Effectiveness of conferencing</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Rossignol, M The Relationship between selected discourse strategies and student critical thinking</td>
<td>1997</td>
<td>CINAHL</td>
<td>Journal Article</td>
<td>11 teachers: 57 nursing students</td>
<td>Watson- Grazer Critical Thinking Appraisal summative measure</td>
<td>Effectiveness of conferencing</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Rentmeester Integrating online discussions into clinical rotations</td>
<td>2006</td>
<td>PubMed</td>
<td>Journal Article</td>
<td>Nursing Student Class: sample size N/A</td>
<td>Learning Activity (informal)</td>
<td>Online conferencing</td>
<td>Yes</td>
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The Effectiveness of the Clinical Conference.

The first theme to be revealed in the review of the literature is the effectiveness of the clinical conference as a teaching strategy. Clinical conferences are discussions in which students share information about their clinical experiences, engage in critical thinking about clinical practice, lead others in discussion and give formal/informal group presentations. Conferences are believed to develop problem solving, critical thinking, clinical judgement and group process skills (Gaberson & Oermann, 2010). They allow learners to assess their own learning and develop oral communication skills and conferences may be used for peer assessment. Post clinical conferences are held at the conclusion of clinical learning activities.

One of the earliest discussions of the post clinical conference in nursing education was published in the nursing literature by Matheney (1969). Matheney’s seminal article highlighted the purpose, content areas and rules for the post conference. In this early article, the author focuses on the effectiveness of the conference by indicating that post conferences should not be a simple rehash of the days’ events or simply sharing emotions. Pre and post clinical conferences were not simply ‘ad-libbing’ sessions, but had structure and direction (Matheney 1969).

Today, clinical conferences continue to be widely used in undergraduate nursing education where they play a role in the development of clinical decision making skills. In a peer reviewed conceptual article, Wink (1995) states that the clinical conference provides a comfortable time in which students can exercise their reflective skills, express their feelings and develop support systems. “To be effective, clinical conferences should have the three following characteristics: they consist of a group event or social activity that is cooperative and
participatory, they contribute to achievement of the clinical objectives and they provide a setting for students to explore personal feelings and attitudes related to patient care” (Wink, 1995, p. 29). Wink (1995) comments that the structure of the conference should contribute to both to the conference and to the clinical objectives. To increase the effectiveness of clinical conferences, instructors must take into account whether or not the conference is necessary to meet clinical objectives. As well, consideration must be given to external factors such as too little time to conduct the conference or extreme student fatigue following the clinical experience. In her article, Teaching Nursing, DeYoung (1990) also focuses on the theme of effectiveness by reiterating that post-conferencing should be grounded on specific objectives which correlate with objectives for the clinical laboratory experience. The potential for unstructured discussions to be seen as trivial or boring by students and faculty and the potential for low energy levels by participants were identified as inherent difficulties in the post conference. Role playing, case studies, interview and participation in games are suggested teaching methods that could be used to engage the student during the conference, thereby making them more effective. These methods foster peer support which is a major factor in facilitating student learning in the clinical environment (Wink, 1995).

Letizia (1998) suggested that there is a fundamental lack of research regarding the approach of clinical faculty to components of the clinical experience. In Strategies Used in Clinical Post Conference, Letizia states that empirical evidence supporting the educational effectiveness of post conference is limited. In her research, Letizia utilized an exploratory descriptive survey research design using a Likert scale to rank post conference activities of nursing faculty. Participants were asked to respond to questions regarding the current level
and number of students in the clinical group, the typical duration and frequency of post
conference, and the use of clinical post conference activities. Discussion of clinical experiences
was the most frequently rated activity of faculty. Letizia’s research serves to provide objective
indicators regarding the effective use of the post conference as a teaching approach.

Clinical practice is a major component of nursing programs and is a source of much
student learning. Nursing educators can utilize clinical practice to enhance the integration of
theory and practice. A major goal of clinical nursing education is to enable students to integrate
theory and practice in the development of their critical thinking skills, hands on skills and
ethical responses. The clinical conference may be a key teaching strategy in bringing together
theoretical knowledge obtained in the classroom with clinical skills. The use of skilled
questioning, by the nurse educator in the clinical conference setting that is focused on helping
students learn can assist in effectively bridging the theory practice gap. Iwasiw & Sleightholm-
Cairns (1990) draws a relationship between clinical conferencing and the experiential learning
cycle that occurs during clinical practice. The author suggests of a model of questioning to be
used in post clinical conferences that would assist learners to reflect on their experience to
develop their plan of care. Wink's (1993) earlier work explores the use of a program to raise
the level of questioning by faculty and students in post conference settings which greatly
increases the effectiveness of the post conference experience. Hsu (2007) also contends that
clinical conferences give students opportunities to share knowledge gained through
transformative learning as they participate in discussion and reflection. The use of effective
questioning by educators to stimulate discussion and student reflection is important in closing
the divide between theoretical knowledge and clinical practice.
The literature supports the clinical conference as a valid teaching approach that offers opportunities to share knowledge and provide a forum for critical thinking. The clinical conference also offers students opportunities to relate theoretical learning to clinical situations. However, it is suggested that to be a truly effective approach to clinical teaching, nurse educators must play a significant role in clinical conferencing by directing discussion and questioning toward intended learning outcomes.

**The Role of Questioning in Clinical Conference**

The second theme associated with the literature review on clinical conferencing is the role played by the nurse educator, particularly with regards to questioning strategies. Clinical conference is one of the most frequently used instructional approaches in the clinical setting. Effective conferences and discussions promote an exchange of ideas and foster critical thinking between educators and students. However, the approach to teaching methods and questioning used in the conference setting may differ among educators.

Critical thinking is identified as a fundamental competency required at completion of the baccalaureate nursing program. Nurses use their knowledge base, cognitive skills and critical thinking to interpret and synthesize information (CNA, 2007). Critical thinking requires judgement and action in complex situations. Key to developing and promoting critical thinking is the role played by the nurse educator in utilizing effective questioning strategies. It is believed that nursing educators should pose questions that probe thinking and through the consistent use of effective questioning by educators, critical thinking ability will be internalized by students (Hsu, 2007). According to cognitive taxonomy, questions can be categorized as low level or high level. Low level questions are appropriate in obtaining factual information and
recalling concepts. High level questions involve the analysis and synthesis of information.

Careful attention to using higher level questions that promote analysis, synthesis and evaluation encourage students to think critically (Gaberson & Oermann, 2010).

In her qualitative study using observation and open ended questionnaires, Hsu (2007) explores nurse educator and student perceptions regarding post clinical conferencing. The findings correlated with previous studies in the area and indicated that six lower level questions (knowledge and comprehensive) were mostly asked by faculty members and that cognitive learning theory seemed to dominate the post clinical conference. While cultural factors may be a limitation of Hsu’s research, it does lead to highlight the role that educators may play in clinical conferencing and how discourse strategies of educators could potentially influence self reflection and critical thinking skills of students.

Over the years, a number of studies have explored the questioning skills of nurse educators in the clinical setting. By using specific strategies for questioning, clinical teachers can facilitate development of critical thinking, decision making and problem solving in students. Based on previous literature, Rossignol (1997) hypothesized that greater use of high level or probing questions by the nursing instructor in the clinical conference, with student participation, would be associated with higher levels of student critical thinking. Rossignol’s investigation into discourse strategies used by nurse educators in the clinical setting and their relationship to student’s critical thinking revealed ambiguous findings, but she concluded that teachers must play a critical role in monitoring the dialogue of students to foster critical thinking. The results of a study, *The Questioning Skills of Tutors and Students in a Context Based Baccalaureate Nursing Program*, conducted by Profetto-McGrath, Smith &
Wounge (2004) indicated that the majority of questions asked by thirty nurse educators in the first three years of a baccalaureate nursing program were framed at the lower levels (knowledge, comprehension and application.) Findings in a number of studies support this. Hsu’s (2007) qualitative research to explore nurse educator’s perceptions indicated that lower level questions were mostly asked in the post clinical conference. From a convenience sample, Sellappah, Hussey & McMurray (2001) audio taped 26 clinical teachers at two post clinical conferences and transcribed the questions asked. They found that clinical teachers asked predominantly lower level questions, in particular ‘knowledge’ questions. Given the value and efficacy of high level questions and their relationship to critical thinking, we must question why clinical educators consistently use lower level questioning in the post clinical conference. Profetto-McGrath et al (2004) suggest that resources and time, as well as unfamiliarity with framing high level questions may be contributing factors.

Questioning strategies should be designed to provide understanding to students on the nature and meaning of their own practice, to correct and improve practice through critical self reflection. Students must integrate theory into practice by using two types of knowledge, “Knowing That” and “Knowing How” (Benner & Wrubel, 1982). Because a student knows the principles of asepsis, does not always mean they apply those principles in the clinical setting. “Knowing How” can be facilitated by the teacher who asks high level questions to encourage the student to anticipate the complexities of the clinical situation. High level questions that incorporate analysis, synthesis and evaluation are congruent with the development of critical thinking and decision making skills (Sellapah et al, 2004, p. 146). The role of the nurse educator involves creating an environment conducive to questioning, increasing their own knowledge.
and ability to use higher level questioning and developing strategies to use effective questioning to foster critical thinking in the clinical post conference setting.

The clinical placement experience is central to the development of nursing practice skills. As noted, clinical skills are not simply application of tasks but connect thought and action. In *Learning on Clinical Placement: the Experiences of 6 Australian Nurses*, Nolan (1998) sought to understand the clinical experiences of undergraduate nursing students. This descriptive interpretative study recorded the conversations of six undergraduate nurses during daily post clinical conferences for two weeks. The recordings were transcribed and used as data for the study. The study focused on how nursing students thought, acted and reflected on their clinical experiences. In the analysis of the data, three categories emerged: “I don’t belong”, “doing and practising” and “transitions in thinking” (Nolan, 1995). While there were many opportunities for the students to practice their skills during the clinical practicum, learning was clearly affected by the instructor’s influence, awareness of learning needs, and the reflective process and prior learning. In the group setting, students felt more comfortable in questioning practice and thinking critically. The study highlighted the importance of effective communication between students, nurse educators as well as clinicians during clinical practice and the post conference setting.

**Clinical Conference and Technology**

The third theme to emerge from the literature review is the role technology has assumed as an integral part of the clinical conference. Clinical conference is usually held at the end of a clinical day to provide an opportunity for students and instructors to process the experiences of the day. Many nurses will recall their own experiences of this type of
conferencing as sub-optimal, as they felt hurried and participated in discussions that lacked depth or opportunities for meaningful reflection. Technology is being implemented to address these concerns. Increasingly, instructional technology is available to nursing educators and is assisting to prepare students to be competent in both clinical skills and technological skills.

Online clinical conferencing can address both competencies.

On line discussion forums have been described as excellent environments to support peer and collaborative learning, foster active learning, encourage higher order thinking skills and enhance professional socialization (Buckley, 2005). Hermann (2006) used on line discussion as a teaching method to facilitate learning in the clinical conference setting. The asynchronous online discussions allowed students to think before responding. They were encouraged to reflect on the experiences after the actual clinical day thereby addressing the experience of fatigue that often undermines the quality of the conference. Hermann found that the student’s level of reflection was deeper and more meaningful in online discussion.

Another study compared two instructional methods of conducting clinical conferences for baccalaureate nursing students, online versus face to face discussion using a mixed methodology design. In the article, 

*Examining the Role of Technology in Learning: An Evaluation of online Clinical Conferencing*, Cooper, Taft & Thelan (2004) found that students successfully achieved intended outcomes of a clinical conference through on line technique. Students in the online group posted a weekly “thinking in action” reflection. They were asked to reflect on their experiences in clinical practice and to consider what happened and what they were thinking at the time. Overall, students noted the online experience facilitated participation and support from peers. The timing of online conferences was noted to be more
convenient and more flexible than traditional face to face conferences. As well the findings suggested students had opportunities to discuss and reflect on ethical issues related to patient care. Because of the homogeneity of the sample used, generalizability may be limited. While considerations for lack of face to face content and confidentiality issues must be addressed, online discussion may strengthen the education benefit of the clinical conference (Taft & Thelan, 2004).

These findings are consistent with Rentmeester’s (2006) article, *Integrating Online Discussions into Clinical Rotations*. Rentmeester incorporated an online discussion forum into a clinical rotation to address the barriers associated with face to face conferencing such as limited space, time, student fatigue and domination of discussion by extroverted participants. The online post conference was found to facilitate the sharing of information, promote the development of critical thinking and led to increased clinical knowledge. While nursing faculty historically have used the face to face post clinical conference to influence clinical decision making and critical thinking, the increasing use of technology in nursing education is expanding the notion of the post clinical conference.

**Conclusion**

Clinical conferencing has been long used as a teaching approach by nurse educators. Historically, the clinical post conference in nursing education has been a well researched area. A search of relevant evidence on the clinical post conference has been categorized into three themes. As a teaching approach, the clinical conference is effective in providing students with opportunities to share information about their clinical experiences, to engage in critical thinking about clinical practice and to lead others in discussion. Secondly, nurse educators are
responsible for creating a clinical environment conducive to learning and developing strategies for effective questioning to foster critical thinking in the clinical post conference setting. Much of the research undertaken on the post clinical conference has been descriptive and qualitative in nature. Further research may provide quantitative evidence to determine the correlation of clinical conference on achievement of clinical outcomes. Specific questioning strategies that take place in the conference showed wide variability with research indicating lower level questions by instructors overrepresented. The success of conferencing as a teaching strategy is dependent upon higher level questioning to develop the student’s critical thinking and synthesis of learning. Thirdly, the increasing use of technology by nursing educators is seen in online clinical conferencing. Information technologies will continue to shape the experiences of students and clinical educators and will have implications for future teaching applications.
References


