A study explored the nature of collaborative learning as a method to prepare future nurses for collaboration in health care. Qualitative research data collection and analysis methods were used. A constant comparative method occurred during and after the data were gathered. Semi-structured interviews, focus groups, and document review were the primary sources of data. Eleven nurses who provide direct patient care and 14 nurse educators who use collaborative learning in nursing education participated. Data analysis suggested collaboration in health care is essential and preparation for collaboration is vital. Collaboration was identified as a core value of nursing and embedded throughout nursing practice. Study participants indicated that collaborative learning experiences provided the structure or framework to facilitate professional socialization. The theory developed from the data analysis was Collaborative Learning as Professional Socialization. The following principles of this theory could be used as guidelines for developing nursing education curriculum as professional socialization: learning to collaborate is a developmental process, and it requires knowledge, skills, developing positive attitudes, and values. (Contains 124 references.) (YLB)
Collaborative Learning as Professional Socialization

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Today's health care system is confronted with complex problems. Societal issues such as AIDS, domestic violence, substance abuse, adolescent pregnancy, poverty, and the increasing elderly population are but a few of the complex problems. High acuity levels and the use of numerous technological systems and equipment characterize patient care. Complexity requires "a comprehensive approach and necessitates that professionals relate to many client-institutional systems and to collaborate with many professionals" (Mariano, 1989, p. 285). This environment requires nurses to be collaborators and team members. Thus nursing education is responsible for preparing future nurses for these roles (AACN, 1998; NLN, 1998).

In 1991, the Pew Health Professions Commissions report strongly stressed relationship-centered care and collaboration. "Within a community of practitioners, members must be able to interpret one another's work, resolve conflicts related to the care of the patient, allow responsibilities and leadership to shift as the patient's needs change and provide support for one another" (Shugars, O'Neil, & Bader, 1991, p. 25). The Pew report strongly encouraged health care educators to provide a learning-centered environment in which students can learn and practice collaboration.

Support for preparing health care professionals for the future was also stated by the Advisory Panel on Health Professions Education and Managed Care for the Pew Health Professions Commission who argued that new health care professionals should be able to help develop and form the new health care system. Its recommendations included teaching students to participate in continuous quality improvement, developing structures conducive to interdisciplinary teaching and learning, and teaching the knowledge, skills, and values needed for effective teamwork (Tresolin, 1995).

In 1987 the National League for Nursing titled the annual Educational Conference "Curriculum Revolution: A Mandate for Change". This conference initiated discussion of inclusion of new theories into nursing education such as phenomenology, hermeneutics, feminist theory, caring and critical thinking (Munhall, 1992). Five years later in 1993 the National League for Nursing (NLN) issued a "Vision of Nursing Education" (1993) statement which identified five essential educational foci for the 21st century: "1) critical thinking, 2) skills in collaboration, 3) shared decision making, 4) social epidemiological viewpoint, and 5) analysis and interventions at the systems and aggregate level"(p.13). The NLN also
called for curricula innovations such as “faculty to faculty and faculty to student relationships that are more egalitarian and characterized by cooperation and community building” (1993, p.12).

Additionally, a national study conducted by the National Council of State Boards of Nursing identified 17 essential activities/attributes for registered nurses (RN’s) in today’s health care workplace. The core attributes were identified as analytical thinking, critical thinking, interpersonal skills, and communication skills (Yocum, 1996). All of these are aspects of collaboration seen in health care.


Beth Israel Cooperation of New York, a pioneer in collaborative approaches to patient care, implemented a project on a medical-surgical hospital unit where the design model of collaboration and interdisciplinary participation was implemented, studied and evaluated. Pike and Alpert (1994) followed this project for five years and reported the following:

Antedotal evidence about the quality of care delivered on 7 North suggests that care was integrated, comprehensive, and proactive. Clinicians found that with this model of collaboration, patient errors and omissions were fewer, that the care delivered was unified and expedient, that patient’s functional ability was better preserved or restored, that transfers to intensive care were less frequent, and that patients were less confused and apprehensive. (p. 14)

It is apparent from the research that collaboration in health care is of benefit to patients, nurses, physicians, and other health care providers. Thus, it is of importance to prepare nurses to actively
participate in the collaborative environment found in the interdisciplinary teams of the health care workplace. Bassoff (1983) states “the kinds of collaborative relationships we seek in health practice begin at the stage of professional development” (p. 280).

Given this emphasis on collaboration from national and state agencies and in the healthcare workplace, it would seem that nursing education would integrate this concept into their curriculum and subsequent teaching methods. “Change has been slower in health professions education then in health care practice, resulting in a gap between what is being taught and what is needed” (Hendrick, Knapp, Newhauser, Gelmon, Norman, Quinn, & Baker, 1996). Preparing nurses for the health care workplace requires a curriculum reflective of the needs of the workplace and developed as a joint endeavor between nursing service and nursing education (Bevis, 1989; Clark, 1993; Diekelmann, 1988; Ferguson & Jinks, 1994; Morse & Corcoran Perry, 1996; Wadle & Munns, 1983; Whitney, 1986). The American Association of Colleges of Nursing (AACN) Position Statement of 1997 reads: “The AACN is committed to reaffirming the principle that excellence in practice, education, and research can be best attained when those in education and practice settings combine their talents in productive exchanges” (p.129). It is imperative that nursing education prepare students for collaboration in health care through a curriculum which incorporates concepts, skills, and practice in collaboration based on the realities of nurses who provide direct patient care (Duffy, Foster, Kuiper, Long, & Robinson, 1995; Ferguson & Jinks, 1994; Lamm, 1998). This process of joint curriculum development is facilitated through dialogue and conversations between nurse educators and nurses in practice (Bevis, 1990; Diekelmann, 1988, 1990; Morris, 1996; Morse & Corcoran Perry, 1996) The combined efforts of both is needed because “no one person has full knowledge of all phenomena and because a group is more likely to generate multiple alternatives for curriculum development” (Schwab, 1983, p. 34).

Framework for the Study

Higher education is being challenged to move from a teaching to a learning paradigm (Barr & Tagg, 1995). “A revolution is taking place in education, one that deals with the philosophy of how one teaches, of the relationship between teacher and student, of the way in which a classroom is structured, and of the nature of the curriculum. At the heart is a powerful pedagogy, one that’s been developing over the
past 100 years. It embraces social issues, the culture of the classroom, lifelong learning concerns, and perhaps both last and least, technology” (Norman & Spohrer, 1996, p. 36). This revolution will require a change in curricula and new teaching strategies.

One such teaching strategy begun initially with children in grades K-12, which applies cooperative learning classroom methods to promote positive interdependence, social skills, and collaboration, is now being used in undergraduate education (Bruffee, 1993; Johnson & Johnson, 1989; Whipple, 1987). Johnson, Johnson, and Smith (1991) state “preparing students to live in the real world includes making classroom experiences (a) more similar to career situations, (b) more reflective of the increased interdependence in the world, and (c) more realistically aimed at building a high quality of life within and after college” (p. 1:22).

Nursing education is not exempt from this revolution in higher education. Based on the Pew Commission Report (Shugars, O’Neil, & Badger, 1991), the NLN Vision Statement (1993), and a changing health care system, nursing education began to promote change. National nurse educator leaders suggested that nursing education needed to focus on relationships, dialogue, interaction, collaboration, and community (Allen, 1990; Bevis & Murray, 1990; Bevis & Watson, 1989; Diekelmann, 1990; Moccia, 1990; Tanner, 1990; Watson, 1989). deTornyay (1993) stated:

Although such competencies as caring for the community’s health, ensuring cost effective care, and working in teams with other professionals are not new, there must be accelerated efforts to develop the skills and competencies that reflect an understanding of the changing needs of the public. (p. 303)

Since that time numerous articles have appeared calling for the centrality of relationship-centered learning, dialogue, and collaborative learning (Bevis, 1993; Dickelmann, 1997; MacLeod & Farrell, 1994; Middlemiss & Van Neste-Kenny, 1994; Mueller, Johnston & Bopp, 1995; Oermann, 1994; Rentschler & Spegman, 1996; Tagliareni & Murray, 1995; Walton, 1996). However, only a sparse amount of literature has reported the actual integration of this new curriculum and use of new teaching strategies by nurse educators (Betz, Raynor, & Turman, 1998; Cravener, 1997; DeSimione, 1996; Hills, Chisamore, & Abbott, 1994; Huff, 1997; McDonald, 1996; Nordgren, Richardson, & Laurella, 1998; Smith, Barton, & Baxter,
In a study done by Valiga & Bruderle (1994) 70 baccalaureate and 67 associate degree nursing programs were surveyed to identify concepts critical in a nursing curriculum. The survey instrument listed 45 critical concepts. It did not include collaboration or related concepts such as team building or interdisciplinary work. Sadly, only two associate degree programs and one baccalaureate program added these concepts to the list. It appears that nurse educators are responding slowly to the call for a “transformational” curriculum and are avoiding the merits and benefits of teaching strategies that foster the development of collaboration.

One such teaching strategy is collaborative learning. Whipple (1987) identifies collaborative undergraduate education as:

A pedagogical style that emphasis cooperative efforts among students, faculty and administrators…it benefits participants by making them more active learners, more interactive as teachers, more balanced as researchers, more effective as leaders, and more humane as individuals. (p. 2)

Cooperative learning, a type of collaborative learning, is defined by Johnson, Johnson, and Smith (1991, p. 1:14) is “working together to accomplish shared goals”. Bruffee (1993) describes a collaborative learning environment as one in which there is common inquiry and where the teacher sets the problem and organizes students to work it out together in a purposeful manner.

Collaborative learning methods are increasingly being used throughout public and private colleges (Johnson, Johnson, & Smith, 1991, 1998). This interest in collaborative learning spans a variety of disciplines including health sciences, law, engineering, math, science and writing.

Research supports the effectiveness of collaborative learning. Johnson and Johnson (1989) conducted a meta-analysis of 521 articles on social interdependence research. Their research review found that cooperative learning led to higher achievement, increased retention, greater use of higher level reasoning, increased perspective taking, greater motivation, more positive heterogeneous relationships, better attitudes toward school, higher self-esteem, greater social support, more positive psychological adjustment, more on-task behavior, and greater collaborative skills. More specifically, in 133 studies of adults, it was found that cooperative learning promoted higher achievement, more positive interpersonal
relationships, higher self-esteem, and greater social support among adults than either competitive or individual learning (Johnson & Johnson, 1887). “The research reveals that the more students work in cooperative learning groups the more they will learn, the better they will understand what they are learning, the easier it will be to remember what they learn, and the better they will feel about themselves, the class, and their classmates” (Smith & Wallner, 1997, p. 187).

With such strong evidence in support of collaborative learning, nurse educators should approach their curriculum revisions and teaching strategies with inclusion of collaborative learning methods. These teaching methods appear to have numerous benefits. In particular, the evidence that collaborative skills are enhanced in cooperative learning is of utmost significance to preparing future nurses for collaborative practice in health care.

Preparing students for collaboration in the health care workplace implies an understanding of what collaboration is and how nurses work collaboratively. Nurse educators must join with nurses in practice to develop curriculum that is realistic and adequately prepares students for the health care workplace. This can be done through conversations and dialogue between nursing education, nursing administration, and nurses (Beddome, Budgen, Hill, Lindsey, Duval, & Szalay, 1995; Bevis, 1989; Diekelmann, 1988, 1990, 1997; Ferguson & Jinks, 1994; Manuel & Sorenson, 1995; Mengel, Simson, Sherman, & Waters, 1991; Morse, 1996; Wadle & Munns, 1983).

It was the intent of this study to explore the nature of collaborative learning as a method to prepare future nurses for collaboration in health care. Three main objectives guided this study: 1) to discover what collaboration is in the health care workplace as described by nurses who provide direct patient care, 2) to discuss with nurse educators who utilize collaborative learning, how collaborative learning can prepare students for collaboration in health care, and 3) to develop curriculum guidelines for nursing education to facilitate preparing future nurses for collaboration.

Research Design

Qualitative research data collection and analysis methods were utilized. A constant comparative method, following Strauss and Corbin’s (1990) grounded theory methodology, occurred during and after the data was gathered. This perspective allowed the researcher to develop a theory that was solidly grounded in
the lived experiences, and the lived reality of the research participants (Glaser & Strauss, 1967). Semi-structured interviews, focus groups, and document review were the primary sources of data. Three research questions guided the study: 1) What are the settings, conditions, skills, and purposes of collaboration as identified by nurses who provide direct patient care, 2) What are the settings, conditions, skills, and purposes of collaboration as described by nurse educators who utilize collaborative learning in the classroom? and 3) How can the settings, conditions, skills, and purposes of collaboration as identified by nurses who provide direct patient care and described by nurse educators who utilize collaborative learning in the classroom, be integrated to develop curriculum guidelines for nursing education? In order to address the research questions, a series of activities were undertaken.

Participants

Eleven nurses who provide direct patient care and 14 nurse educators who utilize collaborative learning in nursing education were selected as participants. This was done through the process of purposive sampling. The participants were located in the Midwest, in both urban and rural areas.

The nurse participants were employed in a variety of health care settings and specialty areas. Their educational backgrounds were either preparation at the associate degree or baccalaureate level of nursing education. All provided direct patient care. Their work experience in health care ranged from 2 to 30 years.

The nurse educators all utilized collaborative learning in their classroom teaching. Their educational backgrounds were at a minimum a Masters degree. They taught in either associate degree programs or baccalaureate programs in National League for Nursing accredited programs and represented a variety of specialty areas. Their teaching experiences ranged from 2 to 30 years and their experiences with collaborative learning was 1 to 28 years.

Procedures

Qualitative data collection and analysis methods were utilized. Qualitative research methods are particularly suited to uncovering meaning people assign to their experiences (Hoshmand, 1989; Polkinghorne, 1991). Since the intent of this study was to explore the nature of collaborative learning as a method to prepare future nurses for collaborative practice, qualitative research was most appropriate. Grounded theory was used in this study to develop and generate a substantive theory of classroom
collaboration and collaboration by nurses in practice. A constant comparative method, following Strauss and Corbin's (1990) grounded theory methodology, occurred during and after information was gathered. Semi-structured interviews, focus groups, and document review were the primary sources of data. The semi-structured interview designed for this study focused on nurse educator's perceptions and experiences using classroom collaboration as a method for preparing nurses for professional practice and on nurses' perceptions and experiences of collaboration as they provide patient care. An interview guide was developed with consultation with expert nurse educators who had published articles on collaboration in the classroom. This interview guide was piloted with three nurse educators and two nurses in practice prior to beginning the research project. Information for the pilot interviews was not included in the study. Each interview was audiotaped, transcribed verbatim, and then returned to the participant for verification. Follow-up telephone calls or written correspondence over electronic mail was used to clarify questions regarding the data and/or to ask for additional data.

Participants were also invited to attend one of two focus groups conducted as the theory developed. Focus groups are often used in qualitative research as a way to produce data that provide "insights into attitudes, perceptions, and opinions of participants (Krueger, 1994, p. 19). Bringing together both nurse educators and nurses in a focus group format provided an opportunity for individuals to share their perceptions and experiences of collaborative learning and collaboration. This format also facilitated discussion of the emerging theory. Each focus group was audiotaped, transcribed, and coded.

The third source of data was document review. This included course syllabi, course materials and other related items from the nurse educators and hospital brochures, and pertinent information from the nurses. These documents were used to understand the nurse educator's classroom and the nurses work environment in more depth, providing the researcher with a broader perspective of the field site and added contextual richness to the study (Glaser & Strauss, 1967; Merriam, 1988).

In this study, data collection and analysis occurred simultaneously whereby each data set was compared with other data sets for similarities and differences. Coding of the transcripts from both individual interviews and the focus groups was completed to examine the data line by line and/or by paragraph. This was followed by identification of the reoccurring themes and categories. Each theme and category was then
coded to delineate relationships between, among, and within the categories. A core category was then identified representing themes that occurred frequently in the data, linked the data together, and helped to explain variation in the data. It was this core category that provided the foundation for the theory.

An additional aspect of the data collection and analysis was the use of memos and diagrams. These were done continuously throughout the research process. Memoing and diagramming represented written and visual forms of abstract thinking about the data. Memos were written regarding all aspects of coding, concept development, category selection, and literature review. Memos were also written to demonstrate the inductive thinking which occurred in the research. And lastly memoing and diagramming provided information on the operational aspect of the research such as notes on sampling, questions, and leads to follow up on. This was consistent with the purpose of memoing and diagramming as reported in the literature (Chenitz & Swanson, 1986; Creswell, 1998; Strauss & Corbin, 1990).

Data collection, coding, memoing, and diagramming continued until all categories were saturated (no new information is obtained) and the core category was confirmed (Strauss & Corbin, 1990). A substantive theory was then developed from the concepts identified in the core category. This theory was described through the use of a model that made sense to the research participants (Glaser & Strauss, 1967; Strauss & Corbin, 1990). Discussion of the theory and its placement within the larger body of existing literature was then completed.

Since qualitative research differs from quantitative research in its goals and methods, the conventional criteria of internal validity, external validity, reliability and objectivity for evaluating rigor of a scientific study were inappropriate for this study (Creswell, 1998; Lincoln & Guba, 1985; Morse & Field, 1995; Sandelowski, 1986). Lincoln and Guba’s (1985) criteria for trustworthiness in qualitative research i.e., truth value, applicability, consistency, and confirmability, were integrated into this research.

Findings

The data analysis suggests that collaboration in health care is essential and preparation for collaboration is vital. Collaboration was identified as a core value of nursing and embedded throughout nursing practice. The participants viewed collaboration as “the essence” of nursing and the “culture of who we are as nurses”. The participants believe that collaborative learning in the classrooms, clinical, and
community settings of nursing education supplies an arena for nurse educators to provide opportunities for
nursing students to learn the knowledge, skills, attitudes and values of collaboration as well as to practice
collaboration. The study participants indicated that collaborative learning experiences provide the structure
or framework to facilitate professional socialization. The participants discussed the importance of
professional socialization to begin in nursing education and to continue to be developed throughout a career
in nursing. The nurse educators and the nurses who provide direct patient care discussed collaboration as a
key aspect of professional socialization for students and novice nurses. Their view of professional
socialization is consistent with Spickerman who defined professional socialization as the “process in which
knowledge, values, norms, and skills espoused by a group are transmitted to and adapted by novices who
join the group”(1988, p. 10).

The study also found that collaboration is a complex phenomenon that builds on past experiences.
The nurse participants and the nurse educators identified such factors as personal life experiences, family
and cultural experiences, educational experiences, and work related experiences as all influencing how an
individual enters into a collaborative situation. These factors can be enriching to the collaborative learning
experience or they can be obstacles. The obstacles are often such things as fear, resistance, cultural norms,
and lack of educational preparation. As a student comes to the nursing education classroom, he or she uses
the collaborative learning experiences as a “filter”. That is, each student brings his or her life experiences
into the collaborative learning experience. It is in this interactive, purposeful learning situation where
students can refine, strain, and percolate new knowledge, skills, attitudes and values, i.e., “filter” ideas in or
out. Although the focus of a collaborative learning experience may not be specifically on collaboration, by
working and learning together in a collaborative learning environment, students learn and practice the
knowledge, skills, attitudes and values of collaboration. This is a process of professional socialization.
Figure 1 illustrates this theory of Collaborative Learning as Professional Socialization.
**Knowledge.**

The study participants discussed the need for an understanding of the content or knowledge base of collaboration. This knowledge base consists of theoretical content as well as understandings gained through experience and learned in an actual experience. This knowledge is developmental in nature and includes the core skills of collaboration i.e., critical thinking, communication, and problem solving. It includes knowledge of oneself and the ability to reflect and self-evaluate. The knowledge of nursing and the theoretical content of nursing are also important. Finally, the research participants discussed the importance of nurses understanding their patients and the health care team as promoting and facilitating collaboration. Figure 2 identifies aspects of knowledge needed for developing and facilitating of collaboration.

**Figure 2. Knowledge Needed for Collaboration As Identified by Nurses Who Provide Direct Patient Care and Nurse Educators Who Utilize Collaborative Learning.**

**Skills.**

The skills of collaboration were discussed in great depth with both the nurses and the nurse educators. Skills refer to the abilities needed to participate in collaboration. These abilities are developed and acquired over time and with practice. Three core categories of skills were identified. These were communication skills, critical thinking skills, and problem solving skills. It is important to note that all participants identified communication as the most important skill of collaboration. The skills of critical thinking were developed using Brookfield's (1987) definition of critical thinking as the ability to reflect on
The four themes of professional socialization i.e., knowledge, skills, attitudes and values, were explored in relation to the concept of collaboration and collaborative learning. The participants viewed collaboration both in the workplace and in the classroom as a complex maze of knowledge, skills, attitudes and values. The participants emphasized that these themes of professional socialization are developmental and take time, experience, and practice to cultivate.
the assumptions underlying actions and considering new ways of looking at a situation. Table 1 lists the skills of collaboration.

Table 1

The Skills of Collaboration as Identified by Nurses Who Provide Direct Patient Care and Nurse Educators Who Utilize Collaborative Learning.

<table>
<thead>
<tr>
<th>Communication</th>
<th>Critical Thinking</th>
<th>Problem Solving</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Advocacy</td>
<td>• Alternative seeking</td>
<td>• Assessment skills</td>
</tr>
<tr>
<td>• Articulate</td>
<td>• Assumption identification</td>
<td>• Case management</td>
</tr>
<tr>
<td>• Assertiveness</td>
<td>• Belief identification</td>
<td>• Consensus building</td>
</tr>
<tr>
<td>• Clarification</td>
<td>• Brainstorming</td>
<td>• Coordination of care</td>
</tr>
<tr>
<td>• Conflict resolution</td>
<td>• Creativity</td>
<td>• Creativity</td>
</tr>
<tr>
<td>• Creativity</td>
<td>• Knowledge</td>
<td>• Decision making</td>
</tr>
<tr>
<td>• Debate</td>
<td>• Perspective taking</td>
<td>• Information seeking</td>
</tr>
<tr>
<td>• Discussion</td>
<td>• Reflection</td>
<td>• Knowledge</td>
</tr>
<tr>
<td>• Facilitation</td>
<td>• Self-assessment</td>
<td>• Organizational skills</td>
</tr>
<tr>
<td>• Information seeking</td>
<td></td>
<td>• Priority setting</td>
</tr>
<tr>
<td>• Knowledge</td>
<td></td>
<td>• Problem identification</td>
</tr>
<tr>
<td>• Listening</td>
<td></td>
<td>• Planning</td>
</tr>
<tr>
<td>• Negotiating</td>
<td></td>
<td>• Resource seeking</td>
</tr>
<tr>
<td>• Non-verbal</td>
<td></td>
<td>• Sharing information</td>
</tr>
<tr>
<td>• Persuasion</td>
<td></td>
<td>• Teamwork</td>
</tr>
<tr>
<td>• Presentation skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Questioning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Referrals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Sharing</td>
<td></td>
<td></td>
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<tr>
<td>• Teaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Writing</td>
<td></td>
<td></td>
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<tr>
<td>• Verbal</td>
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</tr>
</tbody>
</table>

Attitudes.

The attitudes identified by the participants describe the participants' positions or feeling regarding collaboration. They are necessary conditions for collaboration to occur both in the classroom and in the workplace. Table 2 identified the attitudes of collaboration as described by the participants.
Table 2.

The Attitudes of Collaboration as Identified by Nurses Who Provide Direct Patient Care and Nurse Educators Who Utilize Collaborative Learning.

<table>
<thead>
<tr>
<th>Attitudes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
</tr>
<tr>
<td>Collegiality</td>
</tr>
<tr>
<td>Flexibility</td>
</tr>
<tr>
<td>Kindness</td>
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<tr>
<td>Ownership</td>
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<tr>
<td>Patience</td>
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<tr>
<td>Responsibility</td>
</tr>
<tr>
<td>Sharing</td>
</tr>
<tr>
<td>Willingness</td>
</tr>
</tbody>
</table>

Values.

Like the attitudes of collaboration, the values embedded in collaboration were seen as essential and necessary. These values are principles and ideals very desirable in collaboration. An illustration of the values of collaboration is presented in Figure 3.

Figure 3. Values of Collaboration as Identified by Nurses Who Provide Direct Patient Care and Nurse Educators Who Utilize Collaborative Learning.

Honesty → Values → Integrity

Respect → Values ← Trust

The knowledge, skills, attitudes, and values of collaboration form the structure of the theory of Collaborative Learning as Professional Socialization. This theory of Collaborative Learning as Professional Socialization is embedded in the beliefs of the nurse participants and the nurse educators. These beliefs were generated through individual interviews and the focus groups. Table 3 presents the beliefs of nurses who provide direct patient care and nurse educators who utilize collaborative learning.
Beliefs of Nurses and Nurse Educators.

<table>
<thead>
<tr>
<th>Nurses in Practice</th>
<th>Nurse Educators</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Collaboration is essential in nursing.</td>
<td>- Collaborative learning is necessary in nursing education.</td>
</tr>
<tr>
<td>- Collaboration is built on the attitudes and values of trust, respect, patience,</td>
<td>- Collaborative learning is built on the attitudes and values of trust, respect,</td>
</tr>
<tr>
<td>collegiality, responsibility, accountability, and others.</td>
<td>collegiality, responsibility, accountability and others</td>
</tr>
<tr>
<td>- The most essential aspect of collaboration is interpersonal communication.</td>
<td>- Collaborative learning fosters the development of the skills of collaboration.</td>
</tr>
<tr>
<td>- Other necessary skills of collaboration are critical thinking and problem solving.</td>
<td>- Collaborative learning develops communication, critical thinking and problem</td>
</tr>
<tr>
<td>- These are multidimensional and include numerous skills and abilities.</td>
<td>solving skills. These skills are multi-dimensional and include numerous skills</td>
</tr>
<tr>
<td>- Collaboration can be learned and continues to be learned throughout one's</td>
<td>and abilities.</td>
</tr>
<tr>
<td>professional career.</td>
<td>- Collaboration can be learned in the classroom and clinical settings.</td>
</tr>
<tr>
<td>- The learning of collaboration must begin in nursing education.</td>
<td>- Learning to collaborate is a developmental process.</td>
</tr>
<tr>
<td>- Collaboration builds teamwork and a sense of belonging in the workplace.</td>
<td>- Collaborative learning needs to be embedded in nursing education from the</td>
</tr>
<tr>
<td>- There are positive outcomes for the nurse and the patient with collaboration.</td>
<td>beginning to the end of undergraduate nursing education.</td>
</tr>
<tr>
<td></td>
<td>- Collaborative learning prepares the nursing student for the workplace.</td>
</tr>
<tr>
<td></td>
<td>- Collaborative learning is not universally accepted as a teaching strategy in</td>
</tr>
<tr>
<td></td>
<td>nursing education.</td>
</tr>
</tbody>
</table>

Research Conclusions

The theory developed from the data analysis in this grounded study was Collaborative Learning as Professional Socialization. Embedded in this theory are four themes of collaboration. These are knowledge, skills, attitudes and values.

Professional socialization is often defined as the knowledge, skills, attitudes, and values within specific groups. Professional socialization also includes the roles an individual has within a specific group. According to Hurley-Wilson (1988) socialization refers “to the learning of those social roles that facilitate the socializee’s participation and adequate adult performance in the ongoing society of which he is a member” (p. 77). The specific role discussed in this theory is that of collaborator. It is the belief of the
participants in this research study that the role of collaborator can be developed through use of the theory of Collaborative Learning as Professional Socialization. The research findings depict what collaboration is and how it is practiced in health care as described by nurses. The research participants believe this can be learned and developed in the classrooms of nursing education using collaborative learning teaching methods. Two findings from this study are 1) preparing future nurses for the role of collaborator is essential in health care today, and 2) integration of the theory of Collaborative Learning as Professional Socialization into nursing education would facilitate the development of the role of collaborator.

Role development

The findings of this research indicate that collaboration is everywhere in health care today and that nurses are actively engaged in collaboration in the work place. The findings suggest that nurses who provide direct patient care function in the role of collaborator with patients, nurses, and other health care team members. This role was discussed as being "essential" in nursing and the "essence" of nursing. Such a role is developed through professional socialization. Professional socialization is often defined as the taking on of the knowledge, skills, values, norms, and roles of a particular group (Conway & Glass, 1978; Hurley-Wilson, 1988; Spickerman, 1988). The purpose of professional socialization is described as facilitating the best possible role performance by those joining the group (Hurley-Wilson, 1988; Spickerman, 1988).

Colucciello describes professional socialization (in nursing) as "a process that enables us to become creators, shaping our meaning and developing our culture" (1990, p.17). She continues with identifying the primary purpose of socialization is to "transmit and transform our culture" (1990, p. 17). Clark (1997) describes professional socialization as “the process of acquiring a professional identity and norms of practice … an ongoing dialectic of professional socialization that is both reflective and dynamic, in that it involves interaction between self and others in the environment” (1997, p. 441).

The participants in this study viewed the role development of collaborator as one that is a developmental. The nurse participants discussed the “process” of becoming a collaborator they experienced. The literature supports the development of this process as initiated in nursing education and continued in the workplace (Clark, 1997; Cohen & Jordet, 1988; Colucciello, 1990; Eddy, Elfrink, Weis, & Schank, 1994; Spickerman, 1988). Professional socialization as a developmental process has been studied and
developmental models proposed that describe stages or phases an individual experiences as they move from novice to professional (Cohen, 1981; Hall, 1968, 1975; Hinshaw, 1976; Simpson, 1967). These models were helpful in understanding the professional experiences of the nurses in this study.

In discussing their personal experiences developing the role of collaborator, the nurse participants discussed their educational or lack of educational preparation for collaboration. Most discussed their educational preparation as unsatisfactory and learning to collaborate was painful and occurred “on-the-job”. Five of the nurse participants specifically identified their undergraduate nursing education as detrimental to learning teamwork. They experienced an educational environment that was authoritative and controlling. They indicated that working in small groups was not included in their education but rather lecture and note taking was the only teaching and learning method. Three of the nurse participants’ experiences in learning to collaborate in nursing education could best be described as ambivalent. They discussed participating in small group activities but felt the activities had no clear direction or purpose. They mentioned that small group activity was often a time to “catch up on the gossip”. The three nurses who described adequate preparation for their role as collaborator discussed their nursing education as one where teamwork was emphasized and learning together in a “fun” environment was provided. One individual stated specifically that taking an interdisciplinary course was very helpful. Another nurse discussed how she grew up in a family of 8 children where learning to work together was a “must”. When she explored options for nursing school she specifically looked for a program where group work was emphasized. She added that it was difficult to find such as school, but did manage to attend a community college where case studies and group participation was required. She believed this was beneficial to her understanding and use of collaboration in her work as a nurse.

The nurse participants recommended educational experiences that fostered the development of the role of collaborator beginning with the first introduction to nursing class and continuing throughout the entire nursing educational program. They encouraged nurse educators to involve students in learning activities that promote teamwork and development of the knowledge, skills, attitudes and values of collaboration. They strongly endorsed the theory of Collaborative Learning as Professional Socialization.
Integration of the Theory: Collaborative Learning as Professional Socialization

"The education and training of health care professionals shape their identities, values, and norms of practice in certain ways that either enhance or inhibit effective communication and collaboration in clinical settings" (Clark, 1997, p.441). Nurse educators are well aware of the imperative of preparing students for the workplace. State Boards of Nursing, as well as accreditation bodies such as the National League for Nursing, hold schools of nursing accountable for the education of nurses. However a piece of curriculum development which is missing is developing nurses as collaborators. Bellack (1999) challenges nurse educators to prepare students for the emotional and social aspect of nursing (teamwork, cooperation, collaboration, accountability, concern and others). She suggests that nurse educators incorporate competencies related to social skills into the expected outcome competencies of the curriculum. The findings of this study suggest that a teaching method such as collaborative learning can teach and develop knowledge, skills, attitudes, and values of collaboration, thus initiating and facilitating the development and role acquisition of collaborator. This study suggests that nursing education classrooms, clinical, and community settings that structure learning activities to promote learning content and emphasizing the process of collaboration, develop collaborative skills needed in health care today. This was substantiated and verified by nurses who provide direct patient care and are involved in collaboration daily.

The nurse educators participating in this study defined collaborative learning as purposeful working and learning together. Embedded in collaborative learning is learning as a social process. The nurse educator participants believe when students are engaged in collaborative learning they learn not only the content of the learning activity, but also develop and practice collaborative skills such as communication skills, critical thinking skills, and problem solving skills. This is consistent with the literature on collaborative learning in higher education (Astin, 1993; Cooper, Prescott, Cook, Smith, Mueck, & Cuseo, 1990; Cuseo, 1996; Johnson & Johnson, 1989; Johnson, Johnson & Smith, 1991, 1998; McKeachie, 1988,1994) and nursing education (Amos & White, 1998; Beck, 1995; Beeken, 1991; Cairy, 1997; Zafuto, 1997).
The theory developed from this study suggests that collaborative learning is professional socialization. Therefore embedding this theory into nursing curriculum would foster development of the role of the nurse as a collaborator. The research participants agreed that this is needed in nursing education.

**Principles and guidelines for curriculum**

The following principles of learning to collaborate are consistent with the theory of collaborative learning as professional socialization. They were developed through conversations and dialogues with the participants. The research participants believe these principles can be used as guidelines for curriculum development. It was emphasized by the participants that each of the principles is developmental and should be viewed as progressive and pervasive throughout the nursing education curriculum.

1. **Learning to collaborate is a developmental process.** Students come to health care education from a variety of life experiences that may or may not prepare them for collaboration in health care. Professional socialization and role development is developmental (Clark, 1997; Cohen & Jordet, 1988; Cohen, 1981; Coluucciello, 1990; Eddy, Elfrink, Weis, & Schank, 1994; Hall, 1968, 1975; Hinshaw, 1976; Kelman, 1961; Simpson, 1967; Spickerman, 1988). A curriculum supportive of learning collaboration as a developmental process would have collaboration as a progressive and pervasive theme throughout the students nursing education. Engelkemeyer and Brown state: “Learning is developmental, a cumulative process involving the whole person, relating past and present, integrating the new with the old, starting from but transcending personal concerns and interest” (1998, p. 11).

2. **Learning to collaborate requires knowledge.** The participants in this study identified areas of knowledge required to collaborate. These are knowledge of communication, critical thinking, problem solving, self-knowledge, knowledge of nursing, patients, and the health care team. Specific knowledge of collaboration such as concepts of negotiation, conflict management, and teamwork were also identified. The knowledge components suggested by the research participants are supported in the literature in health care education (Bellack, 1999; Clark, 1997; de Tornyay, 1992; Eddy, Elfrink, Weis, & Schank, 1994; Lamm, 1998; Wilson, 1995; Yocum, 1996; Zungolo, 1994).

3. **Learning to collaborate requires skills.** The development of collaborative skills occurs in collaborative learning. This is well documented in the literature on collaborative learning in higher education (Astin, 1998; Astin, 1998).
1993; Cooper, Prescott, Cook, Smith, Mueck, & Cuseo, 1990; Cuseo, 1996; Johnson & Johnson, 1989; Johnson, Johnson & Smith, 1991, 1998; McKeachie, 1988, 1994) and to a lesser degree in nursing education (Amos & White, 1998; Beck, 1995; Beeken, 1991; Cairy, 1997; Zafuto, 1997). The participants in this study identified three areas of skill development essential for collaboration. These are communication skills, critical thinking skills, and problem solving skills.

4. **Learning to collaborate requires developing positive attitudes.** Development of attitudes needed to be a collaborator is facilitated in collaborative learning. When students work together in a purposeful manner to help one another learn, a hidden bonus is learning to relate to one another in a kind and collegial manner (Cuseo, 1996; Johnson & Johnson, 1991; Johnson, Johnson, & Smith, 1991, 1998). The participants in this study report other attitudes developed in collaborative learning activities include accountability, flexibility, patience, responsibility, and sharing. As Rentscher & Spegman state: “Attitudes learned may last longer than the content learned and may be more significant” (1996, p. 393).

5. **Learning to collaborate requires values.** Utilizing collaborative learning in the classroom states to the students “we value collaboration”. It is a very public declaration for a nurse educator to use such teaching strategies. The values embedded in collaborative learning such as honesty, integrity, respect and trust are developed as students work and learn together. Collaborative learning requires both individual and group accountability and therefore developing values essential in collaborative work. “Good collaboration does not occur by chance. It requires practice and attitudes that result in a free exchange of information, a trustful relationship, and a spirit of cooperation” (Amann, 1996, p. 105).

These five principles or themes of the theory of Collaborative Learning as Professional Socialization can be used as guidelines for developing nursing education curriculum. Table 4 presents the learning principles and corresponding curriculum guidelines developed by the research participants.
<table>
<thead>
<tr>
<th>Learning Principle</th>
<th>Curriculum Guidelines</th>
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<tbody>
<tr>
<td>Learning to collaborate is a developmental process.</td>
<td>• Identify specific learning objectives related to collaboration. Both what collaboration is and how it is practiced.</td>
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<td></td>
<td>• Develop program outcomes that define competencies in ability to work collaboratively as well as individually.</td>
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<td></td>
<td>• Design collaborative learning activities that build progressively on each experience.</td>
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<td></td>
<td>• Help students articulate their learning interests, strengths, and limitations.</td>
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<tr>
<td>Learning to collaborate requires knowledge.</td>
<td>• Design collaborative learning activities that have a purpose and require working and learning together in groups of two or more.</td>
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<td></td>
<td>• Provide opportunities in all nursing education classes to practice collaboration.</td>
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<tr>
<td></td>
<td>• Offer collaborative learning opportunities in the classroom, clinical and community settings with a variety of students, patients, and health care providers.</td>
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<td></td>
<td>• Use mentors in the clinical settings throughout the nursing curriculum.</td>
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<td></td>
<td>• Provide specific content on components of collaboration such as conflict management and negotiating.</td>
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<tr>
<td></td>
<td>• Provide numerous opportunities to practice the skills of collaboration in collaborative learning activities. These are the skills of communication, critical thinking, and problem solving.</td>
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<td></td>
<td>• Strive to develop a culture in the nursing program that fosters teamwork, cooperatives and collaboration.</td>
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<td></td>
<td>• Use portfolios or journals to allow students opportunities for self-reflection and personal growth in the development of the role of collaborator.</td>
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<td></td>
<td>• Encourage students to facilitate working relationships that are collaborative with their patients.</td>
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<td></td>
<td>• Encourage students to take interdisciplinary health care courses if offered at the college or university.</td>
</tr>
<tr>
<td></td>
<td>• Expose students to alternative worldviews and culturally diverse perspectives.</td>
</tr>
<tr>
<td>Learning to collaborate requires skills</td>
<td>• Practice, practice and more practice.</td>
</tr>
<tr>
<td></td>
<td>• Offer collaborative learning activities that</td>
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Nurse educators can facilitate the development of the role of collaborator in students through the use of collaborative learning. As this study has shown, this role is essential in health care today. Integrating the theoretical model, Collaborative Learning as Professional Socialization proposed in this study could prepare students for the role of collaborator. "Educators can catalyze change. By enabling students to experience cooperatively structured learning in a cooperative classroom, teachers provide them the experiential knowledge that democracy, care for others, shared power, and positive interdependence are viable, valuable, and meaningful ways to live together" (Sapon-Shervin & Schneidewind, 1992, p. 25).

Implications of the Study

This study identified the collaborative role of the registered nurse and developed a theory of Collaborative Learning as Professional Socialization. Given the framework of this theory, subsequent learning principles for collaboration and curriculum guidelines were identified. The results of this study have implications for nursing education and nursing practice.

Nursing education

This study addressed a need in nursing education to exploring how to prepare students for collaboration in the health care workplace. The participants of this study believe that a specific teaching strategy, collaborative learning does prepare students for collaboration in the workplace. A theory of

| Learning to collaborate requires attitudes. | - When students are engaged in collaborative learning activities, faculty should pay attention to the process occurring. Intervene, encourage, model, and reward collaborative attitudes.  
- Require self and group accountability in collaborative learning activities. |
| Learning to collaborate requires values. | - Integrate collaborative learning activities in all nursing courses.  
- Model collaborative behaviors and values.  
- Require respect, honesty, and integrity in all group work.  
- Build trust and respect among students by using consistent groups for the collaborative learning activities. |
Collaborative Learning as Professional Socialization was developed. This study sought to develop theoretical knowledge that would support current issues in nursing education.

In 1987, Tanner and Lineman identified research questions critical for nursing education. Two of these were addressed in this study. These were “1) What is (are) the most efficient and effective teaching strategies to use in developing selected attitudes and values (e.g., positive image of nursing, risk taking, self-actualization, cooperation, and collaboration) for nursing practice? and 2) What must be present in an educational setting to foster socialization into the profession of nursing?” (p. 56). Collaborative Learning as Professional Socialization addresses both of these questions. Integrating this theory into nursing education has implication for nurse educators, administration and service.

Nurse educators.

Preparing students for collaboration in health using the theory Collaborative Learning as Professional Socialization requires nurse educators to engage in small group classroom and clinical learning. This presents a challenge to nurse educators as many of them are not prepared for such teaching strategies (Allen, 1990; Bellack, 1999; Bevis & Murray, 1990; Bevis & Watson, 1989; Clark, 1997; Cravener, 1997; de Tornyay, 1993; Diekelmann, 1997; Keenan, 1982; Middlemiss & Van Neste-Kenny, 1994). Nurse educators will need to learn and practice collaborative teaching strategies. This can be accomplished through faculty development workshops, professional conferences, and coursework on collaborative learning. Another very cost-effective manner to learn how to utilize collaborative learning is to work with a nurse educator who has experience with collaborative learning. McKeachie (1994) reports that faculty acquire new ideas about teaching most often from colleagues rather than from readings or workshops. Nurse educators need to open up their classrooms and share their teaching and learning strategies with one another. As Diekelmann (1992) states: “To shape future nursing research and to develop and test alternatives approaches, it is imperative to understand and critique current practice in nursing education” (p. 72). She goes on to state, “Recalling the narratives of our lives would create new conversations and open up a future of new possibilities...through understanding the lived experiences that reveal people’s shared practices and common meanings, nursing education will be transformed” (p. 81).
Edgerton (1993) and Hutchings (1993) agree with Diekelmann and suggest that in dialogue with one another as educators we develop a richer understanding of teaching. Benner, Tanner, and Chesla state:

Teachers know much more than they can ever say about teaching. The precepts offered by any pedagogical theory inevitably fall short in prescribing teaching practices, since theory must be filled out, refined, or challenged by the particular teacher, with particular students, and particular subject matter. This kind of practical, pedagogical knowledge development can occur through discussions and interpretation of narrative accounts of particular teaching incidents. (1996, p. 322)

The nurse educators in this study believed that personal experience with collaborative learning was most beneficial when they participated in collaborative learning activities as part of their professional development or work. This would make sense given the nature of collaboration is one of interaction and working and learning together.

Another implication of this study for faculty is evaluation of student learning and outcome assessment. Faculty will need to develop appropriate tools for evaluating students learning and their practice of collaboration. It would seem appropriate that outcome competencies would include measures related to ability to work collaboratively.

Administrators.

This study has implications for those individuals in administrative roles in nursing education such as department chairs and deans. Support from administrators is essential for new pedagogy and new curricular initiatives. This includes financial support and resources. Additionally, administrators need to recognize and reward faculty scholarship in collaborative learning (Clark, 1993). Faculty evaluation tools, student and supervisor, will need to reflect small group teaching and learning, the teacher’s role in the collaborative classroom, the relationships of the collaborative learning activity to the design of the course and the teacher’s knowledge of and commitment to the rationale of collaborative learning, and others (Weiner, 1986).

Another implication for administrators is initiating or encouraging graduate programs in nursing education to prepare future nurse educators in collaborative learning. It is a growing concern that many new
nurse educators are clinical specialists with little or no teaching preparation. This is a responsibility of graduate schools of nursing.

**Nursing Practice**

Developing a theory of collaborative learning has implications for nurses in practice. This includes role modeling collaboration and being mentors for students. It is important for nurses in practice to understand what and how students are learning in the classroom, since nursing students spend many hours in the practice setting applying the knowledge they learned in the classroom. "The importance of the interdependence of nursing staff and students cannot be overemphasized. It must be remembered that students are not yet nurses, they are learning to be nurses. The clinical experience introduces challenges and can be threatening" (Lewis & Deans, 1991, p.28). Learning to collaborate should be viewed as an important aspect of nurses' work with students. Successful interactions between nurses in practice and students foster students' self-concept and strengthen their interpersonal skill (Lewis & Deans, 1991) both important aspects of the nurse's role of collaborator.

**Limitations of the Study**

The generalizability of this study is limited to a specific discipline (nursing) and specific educators (nurse educators), and in a specific locale (Midwest). However, for the qualitative researcher, it is not generalizability that is sought but rather transferability, which is the degree of similarity among contexts (Lincoln & Guba, 1985). Comparative studies in similar settings will help to determine the extent to which these findings can be generalized.

While the theory, which describes Collaborative Learning as Professional Socialization, should apply to all nurse educators within similar context and conditions, it may not be representative of all nurses in practice or all nurse educators who use collaborative learning in the classroom. The small sample size probably does not allow for every possible variation that may occur. However, it is the nature of qualitative research to have small samples of people in a specific context to allow in-depth study (Miles & Huberman, 1994). Other limitations of the study include 1) the accuracy of the recall of the participants 2) lack of 100% participation in the focus groups, and 3) lack of male participants. All of these variables may have impacted this study.
Future Directions and Research

The theory Collaborative Learning as Professional Socialization provides a foundation for continuing research on teaching, learning and preparation for the workplace. The results of this study could serve as justification for further research to address the following concerns:

1. How can professional socialization be studied throughout a student's formative educational years in nursing education?
2. What measures are there to verify achievement of the role of collaborator?
3. How does gender influence learning to collaborate?
4. How do cultural differences impact teaching and learning to collaborate?
5. Is the process of collaborative learning as professional socialization the same for both associate degree nursing education and baccalaureate nursing education?
6. Do faculty in other professional programs experience collaborative learning in a similar way as nurse educators?
7. What are the students' experiences and perceptions of collaborative learning as professional socialization?
8. How can faculty be supported and encouraged to teach nursing using collaborative learning methods?
9. Are there benefits and/or consequences for nurse educators who utilize collaborative learning?
10. How can nurses in practice support nursing students' role integration of collaborator?

Summary

This research explored collaborative learning as a method to prepare future nurses for collaboration in the health care workplace. The skills, settings, conditions, and purposes of collaboration as identified by nurses who provide direct patient care and nurse educators who utilize collaborative learning in the classroom were studied to develop curriculum recommendations for nursing education. The Collaborative Learning as Professional Socialization Model was described. This model and the Learning Principles of Collaboration and Corresponding Curriculum Guidelines for Nursing Education contribute to the emerging base of qualitative research regarding the use of collaborative learning in the classroom of higher education.
References


Cairy, M. J. (1997). The effects of a cooperative learning environment on attitudes, social skills, and processing of a baccalaureate nursing students group process. *Dissertation Abstracts International* (University Microfilms No. 9813579)


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