MAKING THE PARADIGM SHIFT: A REVIEW OF NURSING PEDAGOGICAL MODELS AND APPROACHES.

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ABSTRACT

This qualitative, exploratory study examined pedagogical models and approaches from the nursing literature to determine evidence of a shift from an instructional to a learning paradigm in baccalaureate nursing education. Learning-centered dimensions, related themes, and implications for nursing education addressed in the pedagogies were also examined. Using content analysis, findings indicated a movement, although not completely, towards a learning-centered paradigm evidenced by a high integration of learning-centered themes in combination with traditional instructional pedagogies.

The dominant paradigm in higher education today is the instruction/teaching paradigm in which faculty transfer information in a manner that allows the acquisition of that information by the student (Green, 1999). In contrast, in the learning paradigm described by Barr and Tagg (1995), faculty creates learning environments that enable students to develop knowledge through self-learning. Recent trends and challenges in higher education demand a shift from an instruction or teaching paradigm to a learning paradigm (Twigg, 1994; Dolence & Norris, 1995; Barr & Tagg, 1995; Boggs, 1995; Skiba, 1997; Komives, 2001; Baxter & Terenzini, 2001).

Similarly, changes in health care delivery are requiring nursing education to shift from a teaching to a learning paradigm (Manuel, 1995; Hegge, 1995; Barron, 1999; Romyn, 2001). The dissatisfaction of service administrators with the performance of entry-level graduates and the demands of nursing leaders for a curriculum that disavows the behaviorist paradigm underlines the need for change (Dickelmann, 1989; Allen, 1990; Moccia, 1990; French & Cross, 1992;

RESEARCH FRAMEWORK

In the article entitled From Teaching to Learning-A New Paradigm for Undergraduate Education, Barr and Tagg (1995) called for a shift from an instruction paradigm to a learning paradigm. The instruction paradigm characterizes most of the higher education curricula, where the primary focus is teacher-centered. A shift to a learning paradigm will allow the focus to be student-centered.

Although the article is not based on empirical evidence, it is based on the authors’ perspective of institutional learning paradigm shift in higher education and it will serve as a foundation for the exploration of this study. Barr and Tagg discussed the current challenges that today's institutions of higher learning face, and the failure of the current instructional paradigm to meet those challenges. They identified a gap that continues to widen between what society says it wants from higher education and what the structures actually provide. A proposed learning paradigm would bring about a holistic approach to higher education, thus bridging the current gap.


Of the six dimensions, three instruction/learning dimensions: Teaching/Learning Structures, Learning Theory, and Nature of Roles were used in examining the content of the nursing pedagogical models and approaches studied from the literature. These dimensions were selected as units of analysis because of their appropriateness and applicability. The other three dimensions: mission and purposes, criteria for success and productivity/funding, were not included because their primary focus is institutional rather than pedagogical.

In the Teaching/Learning Structure dimension, structure is explained as "...those features of an organization that are stable over time and that form the framework within which activities and processes occur and through which the purposes of the organization are achieved" (p. 18). The institution, under the instruction paradigm, is viewed as an atomistic metaphor where "...in its universe the atom is a 50-minute lecture and the molecule is the one-teacher, one classroom, three-credit-hour course" (p. 19). In the learning paradigm institution, the course and lecture structure becomes dispensable and negotiable. This paradigm requires a constant search for new structures and methods that are designed in a manner that will evolve throughout time, while maintaining the student-facilitator relationship.

Regarding the Learning Theory dimension, Barr and Tagg (1995) presumed that in the instruction paradigm, learning is cumulative whereby teachers are the main instruments that deliver knowledge to passive students. This belief is rooted in societal assumptions about talent, relationships, and accomplishments. On the other hand, in the learning paradigm, learning is viewed holistically where the main instrument is the learner. The environment is student or learner-centered instead of teaching-centered.

The third dimension Nature of Roles, under the instruction paradigm, the teacher's role is delineated and limiting. Conversely, under the learning paradigm the teacher's role is expanded and creative. Instructors are no longer being expected to funnel the information into the students,
but will be responsible for facilitating the learning of each student. When the instructor serves as a facilitator, the educational focus turns from content to student, and the student's role changes from a passive receptacle for learning to an active consumer.

LITERATURE REVIEW

According to Reilly and Oermann (1992), the movement of nursing schools into higher education institutions brought a shift in pedagogical approach from a medical model, in which physicians trained nursing students at a hospital, to the Tyler behavioral model of education, in which students are the end product of the teaching-learning process and teaching is the means to attain the end (Allen, 1990; Diekelmann, Allen & Tanner, 1989; Moccia, 1990; and Tanner, 1990).

In the late 1980's Bevis (1988) said that nurse educators should choose or develop models to satisfy their particular needs and replace the dominant Tylerian model with a more effective paradigm. In an effort to distinguish between training and education, Bevis (1988) developed the Professional Educational Model. Like Bevis, Diekelmann (1988), in her Dialogue and Meaning Model, reconceptualized the curriculum as containing two kinds of knowledge: one instrumental and theoretical and the other practical and dependent on experience.

The emerging Feminist Educational Model proposed an egalitarian approach to education, with responsibility for learning shared by the teacher and student, changing the traditional power relationship between them (Wheeler & Chinn, 1989). Hedin and Donovan (1989) suggested that when the educational process is based on feminist values and principles, a "freeing up" of nursing education occurs, since the feminist educational model encourages and supports questioning, creating, analyzing, reflecting, and challenging current values.

In their book Toward a Caring Curriculum: A new Pedagogy for Nursing, Bevis and Watson (1989) defined curriculum as interactions between and among students and teachers that resulted in learning. Their Caring Model used techniques such as simulations, scenarios and forecasting to encourage teachers and students to make plans, evaluate future consequences, and recognize the global implications of their actions.

Like Bevis and Watson, Middlemiss and Van Nest-Kenny (1994) claimed that nursing is a practice/professional discipline and therefore requires a student-centered learning model. Similarly, Ford and Proffeto (1994) developed a Critical Thinking Model, in which constant exchanges of information between teacher and student resulted in the evolution of critical consciousness, thus empowering the relationship. In another conceptualization of critical thinking, Kataoka-Yahiro and Saylor (1994) developed a Critical Thinking Model for Nursing Judgment delineating three levels of critical thinking that are influenced by the learning environment.

In Narrative Pedagogy introduced by Nehls (1995), critical thinking arises from the educational partnership of students and teachers. This pedagogy is an interpretative approach to teaching and learning which evolves from the life experiences of teachers and students. Unlike behavioral pedagogy, in which knowledge is transmitted from teacher to student, narrative pedagogy is a partnership between teachers and students in the quest for knowledge.

The continuing need to prepare nurses with better critical thinking prompted the development of the Knowledge-Driven Problem Solving Model (KDM) by Cholowski and Chan (1995). According to this model, the prime determinant of clinical problem solving is the organization and
availability of relevant content knowledge stored in students' memory. Walton (1996) proposed a Constructivist-Learning Model as "a way to incorporate greater opportunities for students' creativity, critical thinking, and active involvement in their own learning process and nursing knowledge development" (p. 400). and Worrell, McGinn, Black, Holloway and Ney (1996) explored a Model of Empowerment, used in the senior year of a baccalaureate nursing program, and found that collegiality, communication, autonomy, and accountability were the four elements emphasized in this model.

Hartrick (1998) introduced a Family Nursing Education a Model utilizing a pedagogical process that employed phenomenology, feminist, and critical social theory. To further the dialogue on curriculum evolution, Hartrick (1999) described a Communication Curriculum approach used in a nursing communication course. Although this curriculum has a behavioral perspective, the approach takes into account the complexity of human caring relationships and their relational practices.

Peters (2000) identified the intricacy and complexity of the student-teacher relationship and discussed the advantages that Constructivist epistemology approach offers as an alternative to the traditional behaviorist pedagogy in nursing education. Today's students have already accumulated significant bodies of knowledge and this learning model allows them to build on this knowledge. The constructivist framework empowers students by encouraging learning with transferability, context and meaning.

**RESEARCH QUESTIONS**

The research questions for this study were: (1) What evidence was present in nursing literature of a shift in nursing education to a learning paradigm, if any? (2) Which dimensions and themes within a learning paradigm context were present in each pedagogical model and approach studied? and (3) What implications for nursing baccalaureate programs were mentioned or addressed in the learning pedagogical models and approaches included in the study?

**METHOD**

Articles and books for this study were obtained from abstracts, computerized data, professional journals, periodicals, and books. A template was designed based on an adaptation of Barr and Tagg (1995) Instruction/Learning dimensions and related themes. These were assembled into a coding system to facilitate data collection, the tallying process and content analysis of texts studied. A comment section was added to the template to include qualitative data.

The researcher and a nursing professor reviewed and coded the texts independently. Intercoder Reliability Test conducted on a randomly selected sample of 6 (10%) out of 66 texts coded verified the qualitative variables coding sheet. Overall agreement was 90% demonstrating a high level of agreement on the coding.

After coding, the *Instruction and Learning* themes identified in the texts were marked on a Category Tally Sheet. Then, this tally was used to calculate the percentages of instructional and learning-centered themes addressed in the texts. Pedagogical models and approaches that had 50 % or more instruction-centered themes were eliminated from further analysis. The remaining pedagogies, which contained 50 % or more learning-centered themes, were further analyzed. A
RESULTS/DISCUSSION

Research Question #1

The first research question refers to the presence, if any, of a shift to a learning-centered paradigm. Of the 30 pedagogical models and approaches studied, 5 (17%) were found to be totally learning-centered. These were the Collaborative Learning, Dialogue, Humanistic-Educative, Metacognition, and Process-Driven. Three (10%) of the models: the Ausubel, Multicultural Social Reconstructionist, and Political-Socialization were completely instruction/teaching-centered.

The remaining 22 (73%) pedagogical models and approaches combined the instruction/teaching and learning dimensions and themes in varying percentages. Seventeen models had 50% or more themes coded under Learning Paradigm. The identification of twenty-two learning-centered nursing pedagogies illustrates a concerted effort by nurse scholars to establish a trend toward a learning paradigm.

However, no evidence was found that baccalaureate nursing education is fully experiencing a shift towards a learning paradigm. This is sustained by the high percentage (73%) of pedagogical models and approaches that use a combination of both instruction/teaching and learning-centered pedagogies in contrast with the 17% found totally learning-centered. This findings can also be explained by Dickelmann's (1997) assertion that, "A new pedagogy for nursing is not easy to sustain however, as the forces to return to teacher-centered approaches are formidable" (p. 147).

Research Question #2

The second question pertains to the learning-centered dimensions and related themes addressed in the pedagogical models and approaches researched. All three instruction/learning dimensions: Teaching/Learning Structures, Learning Theory, and Nature of Roles were addressed in the 22 pedagogies analyzed. Eighteen (82%) addressed learning-centered themes pertaining to the Teaching/Learning Structures dimension. Nineteen (88%) addressed themes in the Learning Theory dimension. Twenty (91%) contained themes related to the Nature of Role dimension.

Tables 1 - 3 present frequency distributions of the learning paradigm dimensions and themes in the nursing pedagogical models and approaches studied.
The highest percentage of themes on this dimension were related to specified learning results, learning outcomes and evaluation of external, self, peer, with a 45% of the approaches mentioning both. Identification of learning outcomes and standards to be achieved reflects a move towards a holistic approach to the developing knowledge and skills needed for completion of a degree. Evaluations conducted by other than the course teacher reflect movement away from the instructional paradigm to give the student(s), other faculty members, and outside evaluators more independence in the evaluation process.

Whatever learning environment works noted by 41% of the themes points to the use of new structures and methods that work better to achieve student learning outcomes while maintaining the student-facilitator relationship. Nurse educators using innovative learning methods and changes in where students learn are fostering more collaboration.

Cross discipline/department collaboration theme mentioned by 32% of the models suggests that nurse educators are beyond the archetypical departmentalization system of communication to a collaborative intra and inter departments and programs. However, the majority of the models did not see collaboration as essential to effective practice. The same percentage, 32% mentioned the theme of progressive stages of learning; times vary which means that the course and lecture structure become negotiable, opening the boundaries to student growth.

The learner-centered environments theme followed mentioned by 27% of the models. Nursing pedagogies that use this theme provide more space and support while redesigning learning environments as experimenting with alternative learning pedagogies.

The last theme identified on this dimension was degree equals demonstrated specified knowledge mentioned by 9% of the models reported in the literature. Using alternative
assessment systems these institutions certified that a student had attained specified skills and knowledge.

<table>
<thead>
<tr>
<th>Learning Theory Themes</th>
<th>N = 23</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.7 Learning results from students’ active involvement</td>
<td>17</td>
<td>17</td>
<td>74 %</td>
</tr>
<tr>
<td>2.8 Learning is student-centered and controlled</td>
<td>10</td>
<td>10</td>
<td>43 %</td>
</tr>
<tr>
<td>2.6 Knowledge exist in each person’s mind to be discovered and constructed</td>
<td>9</td>
<td>9</td>
<td>39 %</td>
</tr>
<tr>
<td>2.9 Learning environment is challenging, cooperative and supportive</td>
<td>7</td>
<td>7</td>
<td>30 %</td>
</tr>
<tr>
<td>2.10 Talent and ability are vast</td>
<td>0</td>
<td>0</td>
<td>0 %</td>
</tr>
</tbody>
</table>

Nineteen (88 %) of the learning pedagogies addressed themes related to the dimension of Learning Theory. The themes in this dimension reflect insight by nursing faculty into how students central to any discussion of teaching and learning. Students must engage in ongoing conversations about and examination of what they study, and high-quality faculty members are critical for learning reform.

The highest percentage of the pedagogies 74 % reported that learning results from students’ active involvement. This provides some evidence that nursing pedagogies are moving towards actively involving students through their learning process instead of having them passively accumulate knowledge.

The theme learning is student-centered and controlled accounted for 43 % of the models. In order to help students construct meaning, these nursing faculty realize that instruction must emphasize interaction and application at the student’s own pace.

The theme knowledge exist in each person’s mind to be discovered and constructed was reflected in 39 % of the pedagogies examined. In the learning paradigm, the view of knowledge is not cumulative and linear, but recognizes a holistic process in which the learner undertakes the creation and construction of knowledge.

Learning environment is challenging, cooperative and supportive was reflected in 30 % of the pedagogies. Such environments are cooperative, collaborative, and supportive of the students’ learning, which results from teamwork and group effort, not by working alone.
Twenty (91%) of the learning pedagogies identified themes related to the dimension *Nature of Roles*, the highest percentage for the three dimensions identified (see table 3). This provides evidence that the roles of faculty and students are shifting towards a learning paradigm.

The first theme *faculty facilitator, coach, designer, organizer* was noted in 77% of the pedagogies examined. This high percentage reflects the changing role of faculty in our higher education, faculty are no longer the knowledge keepers and transmitters, but are actively participating in the creation, design, and implementation of new learning pedagogies.

The theme *faculty/students work in teams/groups* theme was noted in 58% of the pedagogies. As roles of faculty and students change, new and creative pedagogies include a teamwork approach, transforming the traditional power relationship between faculty and student to an egalitarian, shared responsibility for the learning process.

Half of the pedagogies reflected the theme *students are independent and self-reliant learners*. These learning-centered pedagogies were helping students to shift away from being passive receivers of knowledge to being more accountable and more independent in actively searching for knowledge.

*Staff serve/support students and the process* theme was noted in 31% of the learning pedagogies. This low percentage suggests that institutions of higher education are still organized according to a teacher-centered model of education, limiting what the student needs to learn.

The last two themes, *faculty develops students' talents and shared/teamwork governance*, was noted by the same percentages, 19% of the pedagogies. The percentages indicate that some faculty has started to recognize the talents that students demonstrate and are trying to enhance them.

<table>
<thead>
<tr>
<th>Nature of Roles Themes</th>
<th>N = 26</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.7 Faculty facilitator, coach, designer, organizer</td>
<td>20</td>
<td>77%</td>
<td></td>
</tr>
<tr>
<td>3.8 Faculty/students work in teams/groups</td>
<td>15</td>
<td>58%</td>
<td></td>
</tr>
<tr>
<td>3.11 Students are independent and self-reliant learners</td>
<td>13</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>3.10 Staff serve/support students and the process of learning</td>
<td>8</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>3.9 Faculty develops students talents</td>
<td>5</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>3.12 Shared/teamwork governance</td>
<td>5</td>
<td>19%</td>
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The last two themes, *faculty develops students' talents and shared/teamwork governance*, was noted by the same percentages, 19% of the pedagogies. The percentages indicate that some faculty has started to recognize the talents that students demonstrate and are trying to enhance them.
Much has been said about and the need for a shift from an instruction-centered paradigm to a learning-centered paradigm in higher education (Twigg, 1994; Dolence & Norris, 1995; Barr & Tagg, 1995; Boggs, 1995; Skiba, 1997; Komives, 2001; and Baxter & Terezini, 2001).

Since the curriculum revolution began in nursing education in 1986, numerous pedagogical models and approaches have emerged for undergraduate nursing education in the United States. This qualitative exploratory study uses a content analysis to examine the emerging pedagogical models and approaches.

The results of this analysis revealed a shift to a learning-centered paradigm in nursing education for 1980 to 2000. Out of 30 pedagogical models and approaches identified, 22 were 50% or more learning-centered. Frequency analysis of the themes coded in the learning-centered context in these pedagogies substantiated the presence of learning-centered context in these pedagogies. This provides evidence that faculty members are support in less traditional models of inquiry and critique and rethinking aspects of the teaching-learning process.

These learning-centered dimensions: Teaching/Learning Structures, Learning Theory, and Nature of Roles, were all present in the 22 pedagogies examined. The Nature of Roles dimension had the highest percentage of themes defined in the pedagogies suggesting that teacher-student roles are central to the nursing curriculum revolution. Maybe this revolution viewed as a transformation whereby faculty members shift to a more egalitarian relationship in which the student's life and work experience are valued. This shift is reflected in the high percentage of the faculty facilitator, coach, designer, and organizer theme seen in the Nature of Roles dimension.

Findings on the Learning Theory dimension indicate the importance of preceding educational experiences that are likely to foster understanding and practical competence. They suggest an important role for the nurse educators in designing, initiating, monitoring, and evaluating learning. The most common theme was learning results from student active involvement. This finding suggests that faculty members must help students become active participants in their own learning.

A significant finding was that none of the texts reviewed contained the theme that talent and ability are vast. This result alerts faculty to the fact that the vast talents and abilities that students bring to the learning situation need to be considered in their pedagogies. Faculty do not trust or do not recognized that students can and will take responsibility for their own learning. Since traditionally faculty members have assumed responsibility for student learning, they vacillate in between responsibility for facilitating student understanding of process and responsibility for student understanding of content.

The Teaching/Learning Structures dimension had the lowest percentage of coded themes (see table 2). Since this dimension reflects features of the institution that are more stable over time and forms the framework where activities and process occur, change may meet greater resistance. Further, Kuhn (1962) recognized the tendency of one paradigm to persist even as a new paradigm is developing, and thus many current activities and processes may persist even as reforms are implemented of suggested.

The most frequent themes addressed in this dimension were the specified learning results; learning outcomes; and evaluation external, self, and peer. This suggests that faculty members have great latitude in organizing courses, selecting teaching and learning materials, and making conscious decisions about how best to represent, communicate, and evaluate their academic and professional specialties to students. Furthermore, learning-centered models are shifting their
focus to the development of student learning competencies instead of the traditional teaching competencies.

Faculty and students are clearly moving away from traditional roles. Many revised texts proposed redefining the faculty-teaching role as facilitator, guide, coach, and mentor, demonstrating a greater awareness and acceptance of these roles for the new century. More active participation of students in the learning process was greatly emphasized. Thus, the student becomes an inquirer and seeker of knowledge.

Emphasis was placed on the development of strategies that promote effective relationships between faculty and students and in the achievement of student's personal and professional goals through the provision of learning-centered environments. Finally, emphasis was also placed on the necessity to lower the cost of education while increasing productivity and maintaining high quality nursing programs.

CONCLUSION

This qualitative exploratory study showed a movement towards a learning paradigm through the integration of learning-centered themes into traditional instructional pedagogies that suggests a cautious shift to a learning-centered paradigm. Nevertheless, our current paradigm of teaching and learning is already changing as faculty members respond to a curriculum revolution and definition of learning. One outcome of this trend maybe the transformation of higher education institutions from "teaching factories" to "learning communities". A complete learning-centered shift will require revision of educational philosophy, values, roles, and instruction-learning strategies, as well as administrative support. As Barr and Tagg (1995) affirm, "... we must consciously reject the Instruction Paradigm and reconstruct what we do on the basis of the Learning Paradigm" (p. 14).

Nurse educators are incorporating learning paradigm assumptions into their teaching-learning approaches while still holding to the assumptions and approaches of instructional pedagogy. There seems to be resistance by nurse educators to complete deviation from the dominant instructional paradigm. Nevertheless, the incorporation of learning paradigm themes into pedagogical approaches is a positive change.

Learning-centered strategies and approaches place increased emphasis on innovative learning pedagogies and in increased student-faculty interactions. The learning-centered roles of both faculty and students shift faculty from being the knowledge keeper to being facilitators, and students from being passive to active learners.

IMPLICATIONS OF THE STUDY FOR NURSING

The emerging nursing pedagogies that support a trend towards a learning paradigm provide nursing educators with challenge and opportunity to reflect critically on the nature of nursing education and nursing curriculum. The Tyler/behaviorist instruction-centered pedagogy has limited nursing educators' view of the changing learning process and repressed exploration of innovative learning-centered pedagogies. This study provides a framework from which future nursing pedagogies can be explored and evaluated.

New learning-centered pedagogies can meet the needs of nurse educators who wish to focus on the learning process to a greater degree. Faculty should begin to increase their pedagogical
literacy by challenging the pedagogies they use as they engage in the teaching-learning process with their students and avoid using instruction-centered evaluation measures since behavioral objectives are not valid in a learning-centered paradigm. Nursing schools should become places where faculty can grow and develop creating optimal learning conditions for students to become learning-centered consumers in their educational experience.

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