Caring Abilities of Students in an Accelerated Program of Study: A Program Evaluation Study

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Abstract

Can a program of study enhance the caring abilities of its students? This program evaluation study used a prepost survey design to measure the caring abilities of second-degree students enrolled in an accelerated BSN program. Placed in a college grounded in a philosophy of caring, the challenge was to design a curriculum that achieved clinical competence while focusing on the humanism of caring. A partnership model to the study of nursing was designed to emphasize dialogue and reflection over the year of study. The findings of this study provide evidence that students' caring abilities, as measured by the Caring Abilities Inventory, were enhanced as an outcome of the program of study.

Key Words: Caring abilities, survey, nursing education

At the core of contemporary American nursing is “the order to care in a society that refuses to value caring” (Reverby, 1987, p. 1). Historically, nurses have been viewed as caregivers in both the sense of emotional contribution and clinical expertise (Benner, 1984). In recent years technology has become a dominant focus in healthcare settings. With the focus on technology, concern about a nursing shortage, and the chaotic environments in which nursing is practiced, professional nursing has focused on theories of caring that can be practiced in patient interactions and teachable in schools of nursing.

Caring is a central and unifying focus of the nursing profession (Welch & Leininger, 2002). Caring in nursing takes place every time an interaction transpires between nurse and patient. The nurse enters the world of the patient in order to come to know the patient as a caring person (Schoenhofer, 2002). A number of caring-based theories have been developed and proposed to provide a philosophical tenet to the practice of nursing. A common element among these differing theoretical perspectives is that caring is characterized as an essential human need (Boykin & Schoenhofer, 2001; Leininger, 2002; Watson, 2002). Nurses need an understanding of caring and the ways caring manifests itself within the context of the nursing situation to provide quality healthcare. Caring is more than the physical presence and action of the nurse. The nurse’s caring is directly related to the sense of well-being of the person being nursed (Schaefer, 2003). In designing educational programs focused on the study of nursing, an essential guiding principle is the understanding that nursing involves the “nurturing of persons living and growing in caring” (Boykin & Schoenhofer, p. 12). However, prior research has found that programs of study often focus on the performance of tasks and are based on a model of competence focused on task completion (Benner, 1984). In creating a new accelerated program, specifically for students with a degree in another discipline of study, the goal was to make caring integral throughout all learning experiences and visible in program graduates.

Caring theory is difficult to delineate concretely. The concept can be illusive and seems to defy objective investigation. Nurse researchers are continually pursuing new strategies to generate data that will demonstrate the value of caring. Caring, as it relates to nursing, is predominantly a humanistic philosophy. The study of caring is important for the health professions. Much of the existing research has been qualitative in nature and focused on student’s perceptions of faculty’s caring. This body of research includes findings that faculty serve as role models of caring behaviors (Hughes, 1992; Kosowski, 1995) and Paterson and Crawford’s (1994) finding that caring is not something that is done to students but involves the context in which faculty-students interaction takes place. However a search of CINAHL and GoogleScholar databases revealed a paucity of objective studies of the development of caring abilities in students engaged in the study of nursing or the evaluation of the change in caring behaviors after the learning experience.

Intentionality of Caring in the Design of the Accelerated Program

Professional education programs are shaped in particular ways by the humanism explicit or implicit in their educational philosophy. In the process of developing and implementing an accelerated program of study for second-degree students, the importance of preparing a nurse who embodies caring abilities was a primary goal. Consistent with the philosophy of our college, students are called to embrace caring not as a task but as a focus of their being and nursing identity. A challenge in developing an accelerated curriculum focused on the study of nursing was how to achieve clinical competence and discipline-specific knowledge while focusing on the humanism of caring in a 12-month program of study.

The program of study was designed based on Cowling’s (2004) idea of nursing education as a partnership between faculty and students, based on mutuality of purpose and appreciation of the contributions that...
Each person brings to the process. This was a paradigm shift from the traditional focus on conformity and a disconnect between doing the technical skills and being with the person. This is consistent with Nodding’s (2003) writing about education in which she stated, “We are not trying so much to produce a particular product or answer as we are trying to understand, to see” (p. 145).

Engagement of the teacher and learner as copartners in the study of nursing fosters dialogue and reflection and serves to acknowledge each person as a key contributor to the learning exchange. In a partnership model the learning environment is transformed to facilitate rich meaningful opportunities. Both students and faculty become fully immersed in the learning and share the responsibility to nurture caring relationships and a commitment to learn. Specific to the second-degree population, hearing and responding to their individual background experience and career goals is an important component of designing learning opportunities. Recognizing that the individual may take a different journey to fulfilling the knowledge generated from this study, educators can develop educational interventions to strengthen the development of caring abilities during the education of future nurses.

Caring Abilities of Students

This program evaluation study measured the individual’s caring ability at the beginning (T-1) and at the end (T-2) of a 12-month accelerated program of study in nursing. The specific foci of this study were:

- What is the student’s caring ability at the beginning (T-1) of the program of study?
- What is the student’s caring ability at the end (T-2) of the program of study?
- How did caring ability score change from the beginning to the end of the program of study?

This study used a descriptive, pre/post-survey design with two data collection points. The objective was to measure and compare the individual’s caring abilities at the beginning (T-1) and at the end (T-2) of an intensive year of study. The population consisted of the 66 students admitted as the first (n = 22) and second (n = 44) cohort of the accelerated second-degree BSN program. For the two cohorts of students involved in this research the program had 100% retention and 100% graduation rate and a 98.5% first-time NCLEX passing rate.

The student’s caring ability was measured with the Caring Abilities Inventory (CAI) (Nkongho, 2003). The CAI, a 37-item instrument using a 7-point Likert scale
(1 = strongly agree, 7 = strongly disagree) is designed to "measure the degree of a person's ability to care for others" (Nkongho, p. 194). Scores on the CAI range from 37 to 259. Factor analysis has identified three subscales representing Mayeroff's (1971) caring ingredients: knowing, courage, and patience. The score range for each subscale is knowing, 14 to 98; courage, 13 to 91; and patience, 10 to 70. Some items are negatively worded and reverse scored to prevent response set bias. The CAI has been specifically identified as a pre/post measure to evaluate the success of new programs designed to foster caring behaviors (Nkongho).

The CAI has undergone extensive psychometric testing. The tool has a content validity index of .80 and a construct validity confirmed by factor analysis of items consistent with Mayeroff's three caring elements (Nkongho, 2003). Previous studies provide evidence of reliability with internal consistency measures of .70 to .87 for the total scale and subscale internal consistency measures in the range of .70 to .84 (Nkongho).

The university institutional review board approved the study protocol. Students were asked to participate by completing the CAI form during the program orientation session (T-1) and in the days preceding graduation (T-2). Participants were prompted to create a unique identifier in the survey tool to facilitate tracking and comparing responses at T-1 and T-2. Students received a packet with a cover letter explaining the research and their choice to participate. Students were provided a return envelope and directed to a drop box in a secured location, outside the view of the researcher, to protect confidentiality and the choice of participation/non-participation. This process was repeated at the second data collection point.

Data were entered into a spreadsheet for analysis. Separate files were created for the beginning of program data and the end of program data. A merged file was created for the comparative analysis. Data analysis was done with SPSS. The unique identifier, created by each student as part of the data collection process, was used to match responses from the two data collection points. Descriptive statistics were generated to gain an overall picture of the data. A Principle Axis factor analysis was completed to identify the instrument's subscales as described by Nkongho (2003). Paired t-tests were used to compare individual responses at the beginning of the program of study and the end of the program of study.

**Results**

The population for this study consisted of the 66 students enrolled in the first two cohorts of students in an accelerated second degree BSN program of study. A total of 60 students (90%) completed the CAI at the beginning of their program of study and 63 (95%) students completed the CAI at the end of the program. This resulted in 60 matched pairs (90%) for analysis of the change in caring ability.

Individuals participating were representative of the students matriculating in our accelerated second-degree program. The majority of respondents were between 28 and 37 years of age. The average interval since the first bachelor's degree was 7.4 years and nine students held graduate degrees in another field of study. The sample included 12 men and 36% of participants were of non-Caucasian ethnicity and represented diverse cultural backgrounds.

Prior to answering the research questions the psychometric properties of the CAI were re-evaluated with this sample. A Principal Axis factor analysis reconfirmed the items loading onto three subscales. Item loading were consistent with the previously published factor pattern (Nkongho, 2003). A three-factor pattern explained 62.5% of the variance at T-1; at T-2 67.2% of the variance was explained. Internal consistent measures of reliability for this sample are shown in Table 1.

**Caring Abilities at Beginning of Program**

Upon embarking on the study, the nursing students had an average score on the CAI of 196.68 (SD = 13.71). Scores on the three subscales were knowing, 73.95 (SD = 6.85); courage, 68.43 (SD = 3.45); and patience, 54.30 (SD = 6.85). Compared to established means for nurses all these scores, except for the courage subscales, are in the low range. The courage score is in the medium range (see Table 2). There was no correlation between demographic variables of age or time since previous degree and score of the CAI.

**Caring Abilities at End of Program**

The student's average overall CAI score at the end of the program of study was 218.59 (SD = 9.59). The mean score for each subscale was knowing, 81.11 (SD = 6.00); courage, 75.51 (SD = 4.19); and patience, 61.96 (SD = 5.03). All scores demonstrated an increase and a change in category related to the norms for nurses (see Table 2). Again there was no correlation with any of the demographic variables.

**Change in Caring Abilities: Beginning and End of Program**

Finally the student's scores on the CAI

Table 1

<table>
<thead>
<tr>
<th>Measures of Internal Consistency of the Caring Abilities Inventory (n = 60)</th>
<th>T-1 Program start</th>
<th>T-2 Program end</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAI – total scale</td>
<td>.80</td>
<td>.82</td>
</tr>
<tr>
<td>Knowing subscale</td>
<td>.78</td>
<td>.76</td>
</tr>
<tr>
<td>Courage subscale</td>
<td>.72</td>
<td>.74</td>
</tr>
<tr>
<td>Patience subscale</td>
<td>.70</td>
<td>.74</td>
</tr>
</tbody>
</table>
Caring Abilities of Students

were compared at the two data collection points. A paired t-test was used to analyze the change in each students paired responses (see Table 3). Overall score on all the subscales increased providing evidence the individual ability to care for others was enhanced during the program of study.

Discussion

The identification of caring as a core value for nursing practice elaborates the need to investigate the educational processes through which caring can be learned by those who will assume primary caregiver roles. Mayeroff (1971) defined caring as, “Helping another grow and actualize himself...a process, a way of relating to someone that involves development” (p. 1). Our accelerated program is highly intensive, involving approximately 32 nursing practice and 10 classroom hours per week. To promote the development of caring, our program was designed to diminish learning boundaries, thereby providing the learner an opportunity to reflect on past experience and present interactions. Unique features of this program of study included a partnership practice model and a professional contribution activity. During their studies, students practice the art and science of nursing in collaboration with a unit-based nurse expert and a consistent faculty expert at a partner healthcare facility (Raines, 2006). The professional contribution activity is an experience guided by the program director and facilitates the student’s engagement in an individually designed learning experience to enrich their transition and socialization to being a caring professional nurse. A consciousness and commitment to mentoring and engaging the learner in the socialization to nursing as care were guiding forces in designing and implementing a program that envisioned caring and competence as interwoven layers of a single holistically focused continuum.

Caring is a multidimensional ability with both cognitive and affective domains. In this study it is evident that students increased their caring abilities during their study of nursing. The increase in the overall caring abilities score was significant for the total scale, as well as for each of the subscales. At the end of the 1-year intensive program of study these students demonstrated score on the CAI comparable to the medium category compared to the normed scores for nurses (see Table 2). Individuals who score high on the CAI may serve as role models or mentors for others on how to care. Therefore, these findings may indicate that these graduates can serve as role models for caring-based practice as they assume nursing roles in healthcare organizations. Future studies need to follow these graduates as they join the nursing workforce.

Accelerated second degree students are described as being highly motivated and have high expectations of their ability to function effectively in the work setting. However, as evidenced by the student’s perception of caring, shared in the earlier part of this paper, students do not anticipate learning how to care. Most students enter nursing anticipating learning the technical-motor skills, such as measuring vital signs, changing a dressing, or inserting a drainage tube. Many programs reinforce this notion

Table 2

Comparison to the Mean Score for Nurses

<table>
<thead>
<tr>
<th>Subscale/range</th>
<th>Norms for nurses (Nkongho, 2003)</th>
<th>Study sample (n = 60 matched pairs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Knowing/14-98</td>
<td>Below 76.4</td>
<td>76.4-84</td>
</tr>
<tr>
<td>Courage/13-91</td>
<td>Below 62.5</td>
<td>62.5-74</td>
</tr>
<tr>
<td>Patience/10-70</td>
<td>Below 61.0</td>
<td>61-65.2</td>
</tr>
<tr>
<td>Total CAI/37-259</td>
<td>Below 203.1</td>
<td>203.0-220.3</td>
</tr>
</tbody>
</table>

Table 3

Comparison of Mean CAI Scores at Start and End of Program (n = 60 matched pairs)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Beginning of program (mean score)</th>
<th>End of program (mean score)</th>
<th>t-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowing</td>
<td>73.95</td>
<td>81.11</td>
<td>11.53</td>
<td>.0001</td>
</tr>
<tr>
<td>Courage</td>
<td>68.43</td>
<td>75.51</td>
<td>13.34</td>
<td>.0001</td>
</tr>
<tr>
<td>Patience</td>
<td>54.30</td>
<td>61.96</td>
<td>12.11</td>
<td>.0001</td>
</tr>
<tr>
<td>Caring ability</td>
<td>196.68</td>
<td>218.59</td>
<td>20.17</td>
<td>.0001</td>
</tr>
</tbody>
</table>
by placing courses, such as skills and fundamentals, at the beginning of the curriculum with a focus on doing. At the beginning of our program of study the emphasis on caring and knowing was off-putting to some second-degree learners. However, in a learning environment that nurtures dialogue, mutuality, and a climate for interaction caring ability can be developed. With time and nurturing, students become conscious of the meaning of caring. As Parsons (2005) reflected on the experience, she wrote:

…I realized how wrong I really was. While it’s true that a person can’t force another to care about something or someone, you can teach a person to be aware of situations that warrant more caring than usual. You can teach them to recognize times when they aren’t as caring as they think they are, or would like to be...to development of a deeper personal knowledge...while maintaining a higher standard of care. (p. 38)

The finding of this study provides evidence that caring can be influenced through a program of study that nurtures and acknowledges the uniqueness of the second-degree learner. Recognizing the unique gifts that the second-degree student brings to nursing is consistent with the philosophical tenets of our college and is critical to providing an educational experience to prepare the emerging nurse as a humanistic and holistically focused caring professional.

References

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