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Introduction

Statement of Problem

Much has been written regarding nursing image and the necessity of changing it to a more positive, professional image. Many factors, including media influence and personal experience, play a role in the development of nursing image. The ideas and beliefs nursing students have about nursing will impact the future of nursing. Perhaps, if nursing students do not have positive and realistic nursing images, steps can be taken to correct the problem.

I became interested in the topic of nursing image while studying the public image of nursing. I decided to investigate nursing students' perception of nursing image, discover if this perception differs significantly based on educational levels, and determine if students' feelings of autonomy influence their perception of nursing image. Therefore, the specific problem I investigated was: "Do nursing students at various educational levels perceive the image of nursing differently and do their feelings of autonomy influence this perception of nursing image?"

Review of Literature

The topic which was researched is the perception of nursing image and feelings of autonomy. The main source of literature used was nursing journals dating from 1990. Data were reviewed from a CINAHL database covering the years from 1984 to the present. Key words were: nursing image, autonomy, nursing students, professionalism and profession. In the search for literature,
several articles involving high school students, nonnursing college students and nursing students, were found. The focus of most of these research articles was how to improve recruitment practices based on student perceptions.

**Nursing Image.** A study of high school students found that one-fifth of the subjects believed nurses spent most of their time socializing with doctors and 80% did not think nurses could choose the days or hours they want to work. Thirty-percent believed nursing to be a low status occupation (Kohler and Edwards, 1990).

Another study of high school students found that 74% thought nursing involved caring for individuals, families and communities and helping people live healthy lives. Thirty-five percent of the students thought that nursing did not provide opportunities to teach in a college or university and 32% felt that nursing did not provide an opportunity to be an executive (Grossman and Northrop, 1993).

In a study of nursing and nonnursing students, it was reported that students who had chosen nursing as a major found it to be more challenging, more fun, more enjoyable and thought it could be a lifetime career. Whereas, students who had chosen a nonnursing major, believed nursing to be less difficult, less enjoyable and associated with lower pay (Pillitteri, 1994).

An interesting study, done on nursing students in Scotland, reported that they pictured nurses wearing uniforms and caps, going from bed to bed in a "Nightingale-style open ward" (Kiger, 1993, p. 310). These students pictured a good nurse as having, "a cheerful countenance, a caring attitude, dedication, selflessness and dependability" (p. 311). The student nurses in this study revealed that the most appealing aspect of nursing was that it involved working with people in a helping relationship. The researcher reported that students' images were still unclear and they did
not know how their nursing image was developed.

**Autonomy.** One study of nurses and autonomy reported that there is a positive correlation between age, years of experience, education, satisfaction and feelings of autonomy. It was also reported that all participants had mid or high levels of autonomy (Henry, 1993).

Another study, by Schutzenhofer and Musser (1994), reported that professional autonomy in nursing is related to higher education. They found a significant difference between nurses holding an MSN and those holding other types of degrees. It was suggested that the area of specialty in which a nurse works was a significant factor in autonomy.

Boughn (1992) studied autonomy in female baccalaureate nursing seniors. She reported that these students scored as high on autonomy tests as other female college students and even scored higher than other female students on tests of autonomy-related attitudes. In areas regarding advocacy and activism, nursing students scored significantly higher than female students in other majors. Boughn's findings suggest that nursing students do possess individual autonomy which is comparable to students in other fields.

In summary, nursing image has been studied in various student populations and differences in the perception of nursing image have been noted (Kohler and Edwards, 1990; Grossman and Northrop, 1993; Pillitteri, 1994; Kiger, 1993). Each article touched on some aspect of nursing image, but none specifically on the focus of this study. Feelings of autonomy have also been studied in various nursing populations. Studies have reported that individual feelings of autonomy vary within these populations (Henry, 1993; Schutzenhofer and Musser, 1994; Boughn, 1992). Although the subject of autonomy is addressed, it is not in relation to how it influences image and not in the population I studied. Therefore, this study seeks to expand the knowledge base related
to perception of nursing image and feelings of autonomy.

Theoretical Framework

Patricia Benner’s (1984) Novice to Expert theory was used to guide this study. Benner has devised a series of five levels which each nurse must pass through on the way to becoming an autonomous expert. These five levels are as follows:

**Novice.** In this stage, the nurse has no background experience of the situation in which he or she is involved. “Novices are also taught context-free rules to guide action in respect to different attributes. . . . The rule-governed behavior typical of the novice is extremely limited and inflexible” (p. 21). The beginning nursing student fits in this category.

**Advanced Beginner.** During this stage nurses can demonstrate marginally acceptable performance. They “have coped with enough real situations to note. . . the recurring meaningful situational components” (p. 22).

**Competent.** The nurse at this level demonstrates careful, precise and deliberate planning. “Competence. . . develops when the nurse begins to see his or her long-range goals or plans of which he or she is consciously aware” (p. 25, 26).

**Proficient.** At this level, the nurse perceives the situation as a whole rather than in parts. The nurse at this level will display increased confidence in his or her own knowledge and abilities. Proficient nurses understand the situation as a whole because they perceive its meaning in terms of long-term goals. . . . The proficient nurse learns from experience what typical events to expect in a given situation and how plans need to be modified in response to these events. (p. 27, 28)

**Expert.** “The expert performer no longer relies on analytic principle (rule, guideline, maxim)
to connect her or his understanding of the situation to an appropriate action” (p. 31). The expert nurse has an intuitive grasp of a situation and can identify problems without wasting consideration on a range of alternative solutions.

Alexander and Keller (1994) describe changes in four different aspects of performance which occur during movement through Benner’s five levels. These changes are: (a) movement from strict reliance on abstract principles to the use of concrete experience; (b) shift from dependence on analytical, rule-based thinking to intuition; (c) change in the perception of situations; and (d) movement from a detached observer to involvement.

Benner’s theory quite adequately addresses the concept of autonomy and the steps each nurse takes during the movement from novice to expert. These steps can be applied to nursing students. As students complete each course in the nursing curriculum, they have the potential to experience the changes described by Alexander and Keller (1994) and become more autonomous. Benner does not discuss how autonomy affects a students image of nursing. It is my belief that students’ feelings of autonomy will ultimately influence their image of nursing and their ability to modify and transform this image.

Assumptions

Benner has several assumptions that are associated with her theory of Novice to Expert. These are: (a) all practical situations are far more complex than can be described by any formal models, theories or textbooks; (b) with experience and mastery skills are transformed; (c) people enter into situations with their own ideas and perceptions and therefore, personal interpretation of any situation is tied to the way they are in the situation; (d) a person becomes defined throughout the course of living life. Other assumptions for this research are: (a) participants will answer the
questions honestly; (b) the tool used will accurately reflect participants’ views; (c) participants would fully understand the items on the questionnaire.

Hypotheses

1. There will be a significant difference in the perception of nursing image between nursing students at various educational levels.

2. There will be a significant difference between number of contacts with RNs per week and perception of nursing image.

3. There will be a positive correlation between perception of nursing image and feelings of autonomy.

4. There will be a positive correlation between feelings of autonomy and completion of a Critical Care course.

Perception of nursing image and feelings of autonomy are the dependent variables in this study. They will be looked at in relation to the independent variable of educational level. A significance level of \( \leq 0.05 \) was used.

Definitions of terms

**Student Perception of Nursing Image.** Nursing Image is the beliefs, ideas, and impressions students have of nurses and nursing (Kalisch and Kalisch, 1987) as measured by the Career Questionnaire (Kohler and Edwards, 1990).

**Feelings of Autonomy.** Autonomy is the feeling of being able to function independently (Thomas, 1989) as measured by the Nursing Activity Scale (NAS) (Schutzenhofer and Musser, 1994).

**Educational Level.** The current educational status of a student as defined by (a) a first-year
nursing student is one who is in the first year of clinical nursing courses in a two year associate of science program; (b) an AS senior is a student who is in the second year of clinical nursing courses in a two year AS program; and (c) a bachelor of science senior is a student who holds an RN license and will graduate with a BS in nursing within the next six months.

Purpose

The purpose of this research study was to investigate nursing students' perception of nursing image, discover if this perception differs significantly based on educational level, and determine if students' feelings of autonomy influence their perception of nursing image.

Methodology

Design

The design used was a non-experimental comparative survey. This design was chosen because the perceptions of students at various educational levels were studied and a causal relationship was not tested.

Sample

The target population was first-year nursing students, AS senior nursing students and BS senior nursing students. Nursing students at a parochial liberal arts college were surveyed. A convenience sample was used in that all nursing students with the chosen attributes had an opportunity to participate in the study. No attempt at random sampling was made due to limitations in time and resources.

Of the 151 questionnaires distributed to the sample group, 114 were returned completed. Of these, 103 were filled out correctly and were usable. The other 11 were discarded. The respondents were primarily female (76.7%) and in the 21-24 age range (59.2%). Figures 1 -3
detail the demographics more specifically.

**Data Collection**

The tool consisted of: (a) the Career Questionnaire, (b) the NAS, and (c) two demographics (Appendix A). The first demographic sheet was used with the first-year and AS senior nursing students. The second was used with the BS senior nursing students. The two demographic sheets were identical except for the last two questions. These questions did not relate to BS students and were changed.

The Career Questionnaire (Appendix B), designed to identify beliefs about the education, working conditions, status and earning power of nurses, contains 42 items which subjects rate on a 4-point Likert scale. The instrument was reviewed by three experts and pilot tested. Results of the pilot testing were not reported. Since this questionnaire was designed for use with high school students and I determined that some of the items were not applicable to nursing students, only 35 of the 42 items were used. Permission to use the Career Questionnaire was obtained from Patricia Kohler (Appendix C).

The NAS (Appendix D) contains 30 items which describe clinical nursing situations in which a nurse must exercise some degree of autonomy. Cronbach alpha’s ranging from .81 to .92 have been reported with use of this instrument. Information concerning the validity of this instrument was not reported. This instrument has been used on a different nursing populations including public health nurses, rural nurses, head nurses, and BS nursing students. Permission to use the NAS was obtained from Dr. Karen Kelly Schutzenhofer (Appendix E).

The questionnaire was distributed by nursing instructors during regularly scheduled classes and labs. A cover letter giving directions was passed out with the questionnaire since I was
Figure 1—Age Range of Participants
Figure 2--Gender

Female (76.7%)

Male (23.3%)
Figure 3—Contact with RNs per Week
unable to be present while they were filled out. Questionnaires were collected by the nursing instructors and returned to me.

Ethical considerations included anonymity, confidentiality and freedom not to participate. Students were asked not to put their name or any extra writing on the questionnaires. The completed questionnaires were destroyed once data was recorded and all results of this research appear in group form. All students were given the opportunity to decline participation.

Permission to conduct research was obtained from the Human Participants Review Committee (Appendix F).

Limitations

1. Random sampling was not used.

2. Other influencing factors of the students’ nursing image (personal feelings, history, cultural views, etc.) may not have been measured and controlled for adequately.

3. Since some students filled out the questionnaire in class, others filled it out during lab time, and some instructors allowed students to take the questionnaire home, data collection methods were not identical for all groups.

Scope

The results of this study are generalizable to future nursing students at this college. Since the sample size is relatively small and the influences of this college are unique, the results of this study are not generalizable to nursing students in other settings.

Data Analysis

The questionnaires were divided into three groups: (a) first-year students (n=38), (b) AS seniors (n=35), and (c) BS seniors (n=30). Each questionnaire was scored individually and each
received two scores.

Responses to the items on the Career Questionnaire were ranked from one to four. Eighteen items were associated with a negative nursing image and seventeen items were associated with a positive nursing image. Those items associated with a negative nursing image were scored inversely to the number the student gave it. For example, if a student responded to an item with a "1," they received a score of "4." The items associated with a positive nursing image were scored on a straight scale. For example, if the student responded to an item with a "3," they received a score of "3." Scores can range from 35 to 140. The mean score for first-year nursing students was 104.84 with a standard deviation of 9.46. Mean score for AS seniors was 105.54 with a standard deviation of 8.67. The mean score for BS seniors was 99.13 with a standard deviation of 7.98.

Scores from the NAS are weighted. A weight of 1 indicates a low level of autonomy; a weight of 3 reflects a high level. Possible scores can range from 60 to 240. A score of 60 to 120 indicates a lower level of professional autonomy; a score of 121 to 180 indicates a mid level of professional autonomy; and a score of 181 to 240 indicates a higher level of professional autonomy.

ANOVA was applied to the data relating to the scores from the Career Questionnaire to determine if there was a significant difference in perception of nursing image based on educational level. Since three independent groups were used, a t-test was not applicable. A one-way ANOVA was used because there was a normal distribution and only one independent variable was present (Munro and Page, 1993). An F-value of 5.09 was found with a p=0.0078; thus supporting hypothesis 1.
ANOVA was also used to determine if there was a significant difference in the number of contacts with an RN and the perception of nursing image. Students' answers to the question concerning contact with RNs on the demographics sheet (see Appendix A, section III, question 6) fell into 5 different categories. Since five independent groups were used, a t-test was not applicable. A one-way ANOVA was used because there was a normal distribution and only one independent variable was present (Munro and Page, 1993). An F-value of 1.76 was found with a p=0.1430; thus not supporting hypothesis 2.

The Pearson Product Moment Correlation Coefficient ($r$) was used to determine if there was a relationship between nursing image and autonomy. Pearson $r$ was used because data was at the interval level, there was a normal distribution of data, and only two variables were used (LoBiondo-Wood and Haber, 1994). Mean score for the Career Questionnaire was 103.42 with a standard deviation of 9.13. Mean score for the NAS was 182.95 with a standard deviation of 16.85. A low correlation was found ($r=0.27$) with $p=0.004$, thus supporting hypothesis 3.

The Pearson Product Moment Correlation Coefficient ($r$) was also used to determine if there was a relationship between nursing image and those students who had completed a Critical Care course. Pearson $r$ was used because there was a normal distribution of data and only two variable were used (LoBiondo-Wood and Haber, 1994). Students who had completed the course ($n=17$) had a mean score of 182.12 with a standard deviation of 17.43, while students who had not completed the course ($n=18$) had a mean score of 185.14 with a standard deviation of 15.66. No correlation was found ($r=0.09$), and $p=0.60$, thus hypothesis 4 was not supported.
Interpretations of Findings/Conclusions

Using Benner's progression of novice to expert, as applied to nursing students, it would be expected that students with more education and more experience in nursing would have increased feelings of autonomy. I would also expect students with more education to have a better understanding of nursing image and their perception of that image.

The first hypothesis was accepted. There is a significant difference in the perception of nursing image based on educational level. Overall it was found that the students surveyed had a positive nursing image. Items such as "Nursing is stimulating and challenging work," and "Nurses have to take responsibility for the people they take care of," received very high scores. Items such as "Nurses spend most of their time socializing with doctors," and "Nursing is a low status occupation," received low scores.

While a significant difference in the perception of nursing image based on educational level was found, it should be noted that the mean score of the BS seniors was lower than the mean scores of the first-year or AS senior nursing students. I think this is because items on the Career Questionnaire were only scored on a positive and negative scale and not on reality. BS students, who have more experience than the other educational levels, tended to view nursing more realistically. For example, items such as, "Nurses have to do unpleasant things" and "Nurses normally have to work nights and weekends" received higher scores, thus indicating a more negative nursing image, from BS seniors than from the other two groups. Items related to pay tended to receive scores from BS seniors which indicated a more negative nursing image.

The second hypothesis was rejected. There was no significant difference in the number of
contacts with an RN and the perception of nursing image. Some studies (Kohler and Edwards, 1990; Grossman and Northrop, 1993) seem to suggest that contact with RNs is influential in the formation of nursing image. However, these studies were done with high school students and it may be that the contact with nursing instructors, BS nursing students, and staff nurses during lab time negate these findings.

The third hypothesis was accepted. There was a low correlation between perception of nursing image and feelings of autonomy. The low correlation may be due to the small sample size. If a larger sample were used a higher level of correlation might be found. The low correlation may also be explained in part by the fact that some of the items on the NAS are not appropriate for first-year or AS nursing students. For example, situations described in some of the items such as, "Initiate discharge planning concerning the nursing care of the patient, even in the absence of discharge planning by the physician" and "Routinely implement innovations in patient care identified in the current nursing literature," may have been so unfamiliar to first-year and AS senior nursing students that they were unable to give an answer that would accurately and realistically reflect what they would do.

The fourth hypothesis was rejected. There was no relationship between feelings of autonomy and completion of a Critical Care course. Some studies (Schutzenhofer and Musser, 1994; Henry, 1993), seem to suggest that a nurse's area of work influences feelings of autonomy. Critical areas are generally thought to have greater autonomy than other areas of hospitals. However, since the students are not licensed and are therefore unable to practice without an instructor present, they may not view critical care areas as more autonomous than other areas of nursing.
Implications for Nursing

For many years nurses have tried to achieve a positive, professional image. "Achievement of autonomy is a major step in nursing’s struggle for full professional status" (Schutzenhofer, 1987, p.278). As students move through the different educational levels of nursing, they have the potential to become more autonomous and develop a more positive view of their chosen profession.

If nursing schools are teaching student nurses to exercise autonomy and to develop positive nursing images, the future of nursing will be impacted for the good. On the other hand, if nursing education is not teaching nursing students to develop autonomy and positive nursing images, the struggle to improve the professional image will have been in vain because the nurses of the future will not be able to represent positive professionalism.

Recommendations

I would like to see this study repeated on a larger scale using a more controlled data collection method and random sampling. This would allow for a larger scope in the findings. I also think that an autonomy scale designed specifically for nursing students would be useful. This would give more accurate results to the question of autonomy’s influence on nursing image.
Reference List


