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Minority Student Success in Nursing Education

Marjorie R. Campbell

University of New Mexico

mcampbel@gallup.unm.edu

# Abstract

All minority populations are underrepresented in nursing when compared to the general population. Minority and nontraditional nursing students have lower retention and persistence rates as, well as lower NCLEX-RN® pass rates than white non-Hispanic nursing students. A variety of methods have been used to predict nursing student success and numerous interventions to improve student success have been reported. A review of these strategies reveals the necessity of thoughtful curricular and program approaches to increase the rate of success among nursing students. The Caring Imperative is proposed as a theoretical basis for these approaches.

# Minority Student Success in Nursing Education

## Issue and Significance

A well-documented, global nursing shortage exists and is predicted to persist into the foreseeable future. The New Mexico Center for Nursing Excellence quotes the Health Resources and Services Administration (HRSA) as predicting that by the year 2020, 57% of the nursing requirements in New Mexico will not be filled (New Mexico Center for Nursing Excellence, 2006). One facet of this complex issue is the disproportionately small number of minority nurses. HRSA reports that even though the number of minority nurses increased from 7% in 1980 to 12% in 2000, those figures remain well below that of the general population where more than 30% are minorities in 2000 (HRSA, 2004).

In September 2004 the Sullivan Commission released its report on diversity in the healthcare workforce entitled *Missing Persons: Minorities in the Health Professions* that revealed specific data about minorities in nursing. The Sullivan Commission sees increased healthcare workforce diversity as a priority to increase the overall health in the United States by increasing the cultural competence of its members as well as to improve health outcomes for members of minorities (The Sullivan Commission, 2004). The report notes that nursing has increased the numbers of underrepresented minorities at a slightly greater rate than medicine and dentistry, the other professions studied. However, they also note that an increase of 20,000 minority nurses would be required to raise the proportion of minorities by 1%. Minority nurses also pursue graduate education at rates higher than do white, non-Hispanic nurses. Less encouraging is the fact that numbers of Native Americans entering nursing have not changed appreciably in the ten years prior to the report. In addition, faculty and academic leaders in

nursing have less diversity than the nursing population in general (The Sullivan Commission, 2004).

As schools of nursing have sought and enrolled minority students at higher rates, another facet of the overall issue emerges. In California, where there is open enrollment in community colleges, minority-nursing students are less likely to graduate than are non-Hispanic white students (The Sullivan Commission, 2004). A report on the Transcultural Leadership Continuum project compiled by the National League for Nursing notes that in some areas, 60% of students entering at the associate level are enrolled in remedial programs. Attrition rates are up to 50% at the remedial level and up to 50% as well in the early science and nursing courses (Fitzsimmons & Kelley, 1996).

Defining student success in nursing education must include retention and persistence. The National League for Nursing Accrediting Commission[NLNAC], considers the graduation rate to be the number of students who complete the program in 150% of the stated program length (NLNAC, 2005). In addition to completing a nursing program, graduates must pass the National Council Licensure Examination for Registered Nurses (NCLEX-RN®) to be successful. Shortfalls in any of these areas constitute lack of success for individual students and nursing education programs.

This paper will review assessment of and interventions to increase student success in nursing programs. Professional nursing education ranging from practical nursing to graduate education will be examined. Literature as far back as 1993 will be reviewed to ensure a broad view with special emphasis on the issue of student success as it relates to minority and nontraditional students where that information is available.

# Theoretical Foundation

For the purposes of this paper, the theoretical foundation is based on papers presented in 1989 at the 11<sup>th</sup> National/International Caring Conference in Denver, Colorado. These presentations focus on caring behaviors that are culturally appropriate across the broad spectrum of education. Madeleine Leininger and Jean Watson (1990) edited a book based on those presentations. Both of these theorists have presented volumes related to the importance of culturally appropriate caring behaviors as these behaviors apply to providing nursing care. The Caring Imperative concentrates on applying this theoretical foundation to education. Education and caring share foci on growth and self-actualization (Appleton, 1990) making the connection a logical one. The Caring Imperative examines culturally appropriate care as it exists within the organizational culture of education as well as how it is modeled and taught within nursing education.

### Review of Literature

#### General Education Literature

Low completion rates in higher education are not restricted to minority students in nursing or health careers. Tinto (1993) reports that white students are almost twice as likely to graduate as are African American or Hispanic students (Tinto). Statistics in this work look at sixyear persistence rates. Six years after beginning an undergraduate program, students are divided into three groups. Completers have received a degree, persisters are still enrolled or are enrolled again after a break and departers have dropped out prior to completing a course of study leading to a degree. Of course, it is possible that some of the departers will return to become persisters. Tinto makes some interesting observations about higher education in general in the United States. For example, in most countries, the more selective the level of education, the higher the rate of completion. The opposite is true in the United States. Approximately 25% of all students do not graduate from secondary school, 35 to 40% of entering college students fails to obtain an undergraduate degree and it is estimated that up to 50% of those entering doctoral programs do not successfully complete the program (Tinto, 1993).

Tinto concludes that student retention is a complex issue and that one key is integration of students into the institution. Whatever specific program is utilized, commitment to student success is the top priority. That would include a commitment to education for all students (Tinto, 1993). Tinto's integration includes connections made with any portion of the university organization, including students and faculty. These connections fit well within The Caring Imperative.

Nursing authors and researchers (Gardner, 2005; Shelton, 2003) do use the work of Tinto as a framework to examine nursing student retention. References to other mainstream educational theorists are often found in nursing literature, particularly when discussing subgroups like adult learners or nontraditional students.

# Literature Related to Predicting Nursing Student Success

A portion of the literature is concerned solely with predicting student success. Research to determine causes of nontraditional undergraduate attrition establishes at least one significant difference from traditional students. Bean and Metzner (1985) define nontraditional students as older, part-time or commuter students. They note that these students are affected less by social variables on campus than are traditional students. Another conclusion is that the most important variables differ for various subgroups of nontraditional students; such as older, part-time, minorities or academically under prepared students at different types of undergraduate institutions.

Jeffreys (1998) looked at predicting retention and academic achievement of nontraditional nursing students. Using the Bean and Metzner model, this study examined three groups of variables. These were background and defining variables, academic variables and environmental variables. In addition, self-efficacy, the belief that one is able to perform or learn, was measured. In this descriptive study of nontraditional, first semester nursing students, the students were asked to rate their personal perceptions of academic and environmental variables. They proved particularly inaccurate in perceptions related to academic factors, causing the researcher to postulate that the students in the sample did not have accurate perceptions about the academic skills necessary for success in professional nursing education. The students in this study perceived environmental factors were more influential for academic achievement than were academic factors. Students at greatest risk for attrition were those with very high self-efficacy who overestimated academic support and underestimated their need for academic preparation. Although the focus is on early identification of the students who are at-risk, Jeffreys suggests that faculty expand their role to include mentoring and that any support strategies used are planned to include the specific needs of nontraditional students. These interventions are easily related to The Caring Imperative. A relationship built on mutual trust in the caring environment (Halldorsdottir 1990), as described in The Caring Imperative, is at least part of the mentoring role.

One study compared two entrance examinations to see which was most predictive of success in the first nursing course and on the NCLEX-RN®. Students entering the program took both the Entrance Examination for Schools of Nursing (RNEE) and the Nurse Entrance Test (NET), The RNEE is an academic achievement test and the NET includes nonacademic indicators like test taking skills and a stress level profile in addition to academic measures. The nonacademic findings were used to make recommended, not required, referrals. This program had been using the RNEE as a part of their admission process; faculty believed there was a decrease in the quality of applicant pool and therefore wanted to be sure that the tool they were using was reliable. They did find that the RNEE was more reliable and that the reading comprehension subtest was useful for predicting success in the first nursing course. Neither test was reliable at predicting NCLEX-RN®. A passing grade in the initial nursing course proved to be more predictive of success on the licensure exam (Gallagher, Bomba, & Crane, 2001). There was no mention of minority or nontraditional student numbers in this group or of any intervention that would relate to The Caring Imperative.

An analysis of 150 students in a tribal college who declared nursing as a major yields information about predicting success among American Indian students. Of these, 38 or 25.3% completed the associate degree licensed practical nurse program. The students who completed the program were older and scored higher on entrance exams in math and language than did students who did not finish the course of study. Factors that were not related to program completion included number of dependents, high school grades, gender and entrance exams in reading. This study was limited in scope, especially when considering the fact that there are more than 500 recognized tribes in the United States, and did not consider passing a licensing exam as any part of the measure of success (Manifold & Rambur, 2001). Although this study looked at members of a minority, there was no analysis of cultural or caring factors included.

A more comprehensive look at factors that decreased attrition and increased NCLEX-RN® pass rates was done in Texas. Both quantitative and qualitative data was collected and compiled. There were three phases involved. The first was a collection of quantitative data from student records at the community college involved. Student admission and academic history and demographic data on 213 students were compiled. This program utilized the Health Education Systems, Inc. (HESI) Exit examination, so that information was included along with NCLEX-RN<sup>®</sup> scores. The other two phases of the study were qualitative in nature. Phase two was comprised of interviews with directors of ADN programs in Texas about strategies used to lower attrition and raise NCLEX-RN® pass rates. The third phase involved interviews with faculty and recent graduates of the program being studied about the same issues. Findings revealed there was a correlation between the reading, science and math portions of the entrance exam and completion of the nursing program as well as between the science portion and passing the NCLEX-RN®. There was also a correlation between the HESI Exit Examination and between the nursing skills course and passing the NCLEX-RN<sup>®</sup>. Information obtained form the program directors found a number of commonalities. Several schools used admission exams, some with specified cut-off scores, and two had raised required grade point averages for admission. Most programs had some form of remediation for students. Thirty-three out of 45 schools surveyed used exit exams. Faculty interviewed in the third phase mentioned the need for careful examination of admission processes, the need for student mentoring and the need for enough time to mentor new faculty and facilitate student learning. Students addressed the perceived need for a class on test taking as well continuous review and practice using NCLEX-RN® style questions. The program studied reached several conclusions including the need to examine admission criteria, some curriculum issues, and some testing and review issues (Higgins, 2005). There is no mention of various cultures, minority groups or any nontraditional students in this study. The issues of mentoring of students and faculty certainly fit within the scope of The Caring Imperative but they are not addressed directly in that way.

# Literature on Specific Programs to Increase Student Success

The literature is rich with examples of interventions that have been devised and utilized by nursing programs to increase student success, often times targeting minority or nontraditional students. The Learn for Success (LFS) program was developed at the University of Southern California. It involves early identification of at-risk students followed by study skills workshops, study groups, peer tutors and faculty coaches. The interventions include learning strategies, motivational strategies, self-management and faculty coaching. There is an added cost involved in this approach, much of it for the coaches. These were faculty members who volunteered and received some release time for the activity. At-risk students met for 30 minutes each month with a coach and worked specifically on academic goal setting and learning skills necessary to meet the goals. Student success was measured by overall grade point averages and passing scores in all courses, retention in the nursing program, improved scores in a test used to identify learning strengths and weaknesses, and student reports of increased academic skills. At-risk students were identified as planned at the beginning of the semester and students were added to the program throughout the semester as they developed academic difficulties or became at-risk. The LFS program was so successful that the at-risk students passed the first semester nursing course at rates almost identical to the students who were not at risk. Students reported that the coaching component was of high value. At-risk students do not always take advantage of available resources. The direction and encouragement of the coach, who perhaps displayed caring behaviors, was a substantial part of the success of the program. However, 10% of the at-risk students who passed first semester, failed in second semester when they did not have the support of the coach (Peter, 2005). The criterion for choosing at-risk students was grade point average,

and there is no mention of ethnic or nontraditional students in this program. The Caring Imperative fits well into the coaching model. The LFS program is a good fit from several perspectives: careful attention was given to the education and support of the coaches.

Peer tutoring for at-risk students may also increase success. Students in a medical-surgical theory course were designated as at-risk if their test score average was less than 70% after the first two tests. There were 26 out of 209 students who fell into that group. All were offered the chance to work with peer tutors and 20 agreed to participate. Tutors were selected who had scored 88% or above on the first two tests. Those who were willing to be tutors were given some basic orientation and then were paired with the at-risk students. There would be a faculty coordinator available for consultation and the time commitment was expected to be one to two hours a week. Students were paired according to the units they were studying and the clinical section they were in as well as language and similar cultural background and proximity, in case they wanted to meet off campus. Although this is a small study, the attrition in the medical-surgical course went from 12% to 3%. The suggestion was to continue and expand the peer tutoring program, to identify at-risk students early, and to look for ways to provide funding for the tutors (Higgins, 2004). Once again, however, participants are not identified based on anything other than grades. The use of peer tutors fits easily into The Caring Imperative, although there are not enough details provided to assess specific interventions or interactions for caring behaviors.

Jeffreys (2001) examined an enrichment program that also utilized peer tutors. Early contact was made with students while they were in pre-nursing through the use of newsletters. Nursing students self enrolled in the enrichment program that was designed to decrease attrition, increase academic success and promote positive psychological outcomes. Interested students attended an orientation workshop and then selected a study group that was led by a peer/mentor tutor (PMT). These groups met weekly and had five students per PMT. Additional individual tutoring was available based on student need. The PMTs were upper level students selected because of excellent academic standing and communication skills. The PMTs had initial training and ongoing contact with the project director. Students in the enrichment program passed the nursing courses at a higher rate than those who were not in the enrichment program. Student response to questionnaires used to assess psychological outcomes indicated positive effects of the enrichment program. Students even asked for longer study group sessions before tests. More than 40% found the enrichment program "greatly supportive." An interesting difference in this program is that students chose to participate. None were designated at-risk or encouraged to participate based on need. Again, there is no information about any minority group to which these students might belong.

One successful minority retention project at California State University relied on a grant to decrease minority attrition. The program has a high overall retention rate but noted that 80% of attrition due to academic concerns was among minority students. The project itself involved increasing the time for the retention coordinator who worked to expand the support for students and taught study skills and test taking classes and met individually with students who received less than a C+ on an exam. In addition, the coordinator developed a mentoring network with minority nurses in the community, established partnerships between English-as-a-secondlanguage students and English-as-a-first-language students, coordinated potlucks at the beginning of each semester for students and family members, developed a cultural health care seminar, held minority support group meetings, acted as an informal liaison between students and faculty and developed outreach with minority pre-nursing students. These activities were designed to integrate minority students into the supportive learning environment. The program was able to achieve 100% retention of minority nursing students during the year studied (Gardner, 2005). These interventions all fit into The Caring Imperative. The wide range of activities and interventions is particularly caring and culturally appropriate; the coordinator position certainly indicates a high priority for retention of these students.

Minority groups now make up the majority of the population in the nation's most populous state, California. It is predicted that this will be true throughout the country soon. An examination of nursing education in California community colleges documents relationships between numerous factors related to student success. Nursing programs with higher numbers of Asian non-Filipino and African American students had lower on-time completion rates. Student age proved to be unrelated to program success rates and programs with higher percentages of male students had higher on-time completion rates but lower NCLEX-RN® first time pass rates. Programs with higher percentages of Asian and African American students have higher attrition rates and support services did not counterbalance the high attrition. Only learning resource centers were associated with lower attrition rates. The authors speculate that some support services may have been established in response to the high attrition rates. Programs with higher percentages of African American and Filipino students had lower NCLEX-RN® first time pass rates. Questions arise about the adequacy of high school preparation of students attending community colleges. There are also questions about the aging, predominantly white nursing faculty who may not consider various learning styles and cultural considerations as they plan lessons and teach content. As the authors point out, it is not reasonable to assume only white students from the dominant culture can practice nursing effectively or that students from ethnic minorities must deny their own culture to achieve success in nursing (Seago & Spetz, 2005).

Although minority issues are addressed directly, there is no indication of how interventions would fit into The Caring Imperative.

Another study looked at faculty support as it related to student retention. The researcher developed an instrument to measure student perceptions of psychological and functional faculty support and administered it to 458 associate degree nursing students. Functional support is direct help to facilitate learning and psychological support included mentoring relationships and caring atmospheres. The students were divided into three groups for comparison. One group, the largest, had persisted without any interruption in enrollment. A second group had withdrawn voluntarily at some point during their program and the third group had been required to withdraw due to academic failure. There were significant differences in the perceived faculty support between the groups of students. The first group, those who were successful in the program, reported the greatest perceived support. The biggest difference in perceived support was between the first and third groups, although the differences between groups two and three were not statistically significant. One limitation of this study was the smaller number of students in the second two groups and, even more importantly, the fact that the return rate of the questionnaires was much lower for students not currently enrolled in the program. Nevertheless, the researcher was able to conclude that both functional and psychological support increased student retention and persistence (Shelton, 2003). All of the students in this study are in the same program. It would be interesting to know whether students were interacting with particular faculty who are not perceived as supportive and whether faculty are not as supportive of students who are having academic difficulty.

The structure of a caring student-teacher encounter is outlined from the 1989 Caring Conference. Four basic components are described: the teacher's caring approach, the resulting mutual trust and professional working relationship and positive student responses to the encounter. The essential components of the teacher's professional caring approach are professional competence, genuine concern for the student as a studying person, positive personality and professional commitment (Halldorsdottir, 1990). Shelton's tool to measure perceived faculty support includes items such as: demonstrates respect for students, are approachable, can be trusted, are good role models for students, have a genuine interest in students and demonstrates confidence in students (Shelton, 2003). Shelton seems to have looked for the essential components in the teacher's caring approach.

Going even further is a program designed to increase minority representation in research and advanced practice. Project IMPART (Improving Minority Professionals' Access to Research Tracks) is a cooperative venture between a community college and a baccalaureate program in Philadelphia to accelerate minority students' academic progress. Students in the associate degree program are selected based on interest and commitment, not academic achievement. The program involves academic course work, a research assistantship, and academic and career counseling. The research assistantship is a salaried position during the summer between the two years of the associate degree program. By the end of the associate degree program, students have acquired 15 credits applicable to BSN or MSN degrees. This program has an 87% retention rate after two years and one year after graduation all 12 participants in the first group were enrolled in BSN programs, some full time and some part time. These students found that personal variables, like academic interest and sense of self, and family support were more important than other environmental factors, like faculty support. This seems to challenge other findings about minority student success, but a portion of Project IMPART was a mentor relationship with a nurse who is not a faculty member (Griffiths & Tagliareni, 1999).

It is more common for programs to target at-risk students and even mandate participation. The Learning Skills Program was developed at a baccalaureate program in response to dropping NCLEX-RN<sup>®</sup> pass rates. Students were tested using a standardized test prior to their junior year in reading comprehension, vocabulary and decoding ability. If a decoding problem was discovered, students were referred to an outside reading specialty center at their own expense. If reading comprehension or vocabulary problems were discovered, the student participated in the Learning Skills Program. All students were required to participate in workshops on topics like time management and test taking during the summer prior to the junior year. The Learning Skills Program takes place during the semester and consists of one hour of class and two hours of computer lab time each week. The class is lead by a faculty member and looks at stress and time management as well as study and communication skills. The computer time is schedule at the student's convenience and focuses on improving vocabulary and reading comprehension. Students are retested at the end of the semester, and if they show adequate improvement and have been successful in their courses, they are released from the Learning Skills Program. They will continue in a more individualized version of the program if they do not meet those benchmarks. In addition to implementing the Learning Skills Program, changes were made in the school's grading criteria, testing methodology and progression criteria. They also utilized standardized tests in nursing content areas and near the end of the program. Students who were not successful taking these standardized tests were also referred to the Learning Skills Program and all students took an NCLEX-RN® review course paid for by the college. It is difficult to assign credit for improvement when so many interventions are initiated, but the overall results are significant. The first time pass rate went from 62% to 100% (Parkes & Kirkpatrick, 1996). Although the result of these interventions is impressive, it is more difficult to align with The

Caring Imperative. There is no specific mention of connections with students. Waiting until prior to the junior year to look for big issues like reading comprehension and decoding seems less than caring. A program with a 62% NCLEX-RN® pass rate would be planning interventions for its own survival.

Another program targeting at-risk nursing students is Partnership in Learning for Utmost Success (PLUS). The goals were to increase persistence, cumulative grade point averages, graduation rates and NCLEX-RN® pass rates among at-risk students who participated in the PLUS program. The program was developed with grant money but was self-sustaining and part of the undergraduate curriculum at the time of the article. The program consists of a comprehensive assessment plan, a program of studies, faculty development, and partnerships for learning. The assessment plan assesses incoming students and monitors them as they progress. The program of studies is a series of six, one-credit academic courses. The first course is offered to all freshman and sophomore students and examines successful learning strategies along with a psychological component. The other five courses are offered in conjunction with courses throughout the curriculum that are identified as having high attrition rates. They are taught by nursing faculty and again focus on successful learning and also focus on developing academic and personal partnerships. Study groups, mentoring activities and computer activities are utilized. Over a three-year period a comparison was made between 121 at-risk students who took one or more PLUS courses and 89 at-risk students who chose not to participate in the PLUS program. The attrition rate was less than 10% of the students who participated in PLUS compared to 43.8% of the students who did not participate. The graduation rate was 50.4% for the at-risk students who participated and 27% for those who did not participate. First time NCLEX-RN<sup>®</sup> pass rates were somewhat less remarkable, 81.6% for participants and 75% for

non-participants. The results were significant enough for the faculty to enact policies to make the PLUS program mandatory for students who were designated at-risk (Lockie & Burke, 1999). Although minority composition of the groups is not mentioned, the connection with faculty members and provision of needed supplemental classes corresponds to The Caring Imperative. *Literature Review of Broad Issues Including Curriculum to Increase Success* 

Some suggested interventions for student success are not programs but approaches to education to increase student success. Assessment of student needs as they relate to culture is one such area. Just as assessment of a client's culture is important, an understanding of student's cultural needs and understandings are important for educational success. Davidhizar and Shearer (2005) suggest that students are asked to complete a learning profile at the beginning of the course. They caution that each student must be assessed individually to avoid stereotyping. Communication can be difficult. Students for whom English is a second language may have particular difficulty in a lecture situation where the content is cognitively demanding and context is reduced, making understanding very difficult (Abriam-Yago & Yoder, 1999). Student participation may be hampered by language difficulties, even in small group settings. Faculty members are encouraged to utilize individual learning objectives related to communication and provide bicultural opportunities for students. It is also suggested that faculty model the use of texts and other resources. Ongoing assessment of students in the areas of communication and in cultural areas is as important as assessing other areas of student performance. These approaches align well with The Caring Imperative. Any tactic that considers individual needs of students has at least the potential for culturally appropriate caring behaviors.

Looking at issues involved with teaching minority students from the faculty and student point of view is an interesting proposition. Faculty teaching in nursing programs in California and minority nurses who graduated from California nursing programs were interviewed to obtain that information. Faculty members from associate degree and baccalaureate programs that had 45% to 90% minority students were interviewed and 45% of these individuals were members of minorities themselves. The graduates identified five different patterns of responding by educators. The first was generic. These instructors identify individual differences between students but do not consider culture to be an important factor contributing to the differences. The second pattern is mainstreaming. There is a high level of cultural awareness and the faculty respond to it by assisting students to understand and adapt to the mainstream culture. The third pattern in non-tolerant. These instructors do not tolerate cultural differences and create barriers for minority students. The fourth pattern is struggling, in which faculty are moving toward higher cultural awareness and are trying to adapt their teaching to respond to cultural needs. The fifth pattern is bridging. High levels of cultural awareness characterize it and instructional responses are culturally adapted. This pattern was described but not experienced as often as the other four patterns. In addition to identifying the patterns of responding, the interview with the graduates identified the need for minority role models (Yoder, 1996).

Bridges and barriers specific to career mobility were identified by Hispanic nurses who had completed the next level of education in nursing. Focus groups were conducted in six sites across the country to obtain this information. The barriers identified were financial, institutional, the Hispanic culture and family, and language. Institutional barriers included discrimination by faculty, inflexible schedules, and ineffective advising. Cultural barriers generally involved gender roles, women are expected to stay home and care for the family. Language was an issue because students felt that some faculty and peers associated language difficulty with lower intelligence and some assumed there would be language issues because the student was Hispanic. Some of the items that were identified as barriers also served as bridges; the institutional area was one of these. Ability to take part time classes, availability of financial aid, and role models and mentors were bridges. Family also served as bridges for some students, as supports and motivators. Professional aspirations and personal factors also served as bridges for educational mobility. Many Hispanic nurses start at the ADN level of nursing education, so identifying bridges and barriers to continued education is an important goal (Villarruel, Canales, & Torres, 2001). Identification of bridges and barriers could be an important precursor to development of interventions that could be aligned with The Caring Imperative.

Evans (2004) looked directly at using the caring curriculum with Hispanic and American Indian nursing students. The author produced a recruitment film for Hispanic and American Indian students. With approval of the Institutional Review Board, seven interviews were filmed as a basis for the film and the qualitative data obtained was also analyzed. A list of 18 barriers to success was developed that included the top six of: leaving home, experiencing racism, fearing failure, facing economic difficulties, having work conflicts, and seeing nursing as an unreachable goal. The caring curriculum was carefully defined and components of the curriculum were identified that would address the barriers that were identified.

#### Analysis and Conclusions

Analysis of minority student success in nursing school seems almost as complex as the issue itself. Material available for review varies widely in topics studied and reported. One noticeable issue is the definition of student success. Retention efforts generally focus on students completing educational programs without reports of NCLEX-RN® pass rates. This important piece of students' success must be included for a complete picture of the issue. And

NCLEX-RN® pass rates for programs cannot really be examined for significance without knowing facts about program retention: all graduates could pass if all students having any type of difficulty were not retained. Few articles available for review include both aspects of nursing student success.

Another difficulty is finding specific information about minority student success. In this area, there is sometimes discussion of recruitment of minorities without discussion of student success after they are recruited. Some reports don't include information about minority students in the group studied. In most of these cases, students are labeled at-risk on the basis of identifier other than race. The most common of these is academic concerns. Although this information is certainly valuable and pertinent, it is impossible to generalize or draw conclusions about minority student issues from it.

There is a recurring theme in this literature that students are arriving at college less prepared than in the past. Minority and nontraditional students are perceived to be even less prepared than traditional students. A variety of interventions are suggested to deal with this. Careful screening of applicants is one approach (Gallagher, Bomba, & Crane, 2001; Manifold & Rambur, 2001). There is a potential danger in making entrance requirements so difficult that students who could be successful are eliminated from consideration. The Caring Imperative (Leininger and Watson, 1990) as well as Tinto (1993) would caution against this. Some remediation is necessary prior to entrance into nursing education. Caring behavior would mandate this be done as early as possible; testing and intervention should happen at the first contact with the student.

Numerous programs offer remediation or enrichment to students who are in nursing programs. Reports of these studies often mention minority students; indeed minority students are

often targeted for both of these interventions. Although remediation, with its focus on bringing students up to minimal performance levels, and enrichment, with its focus on advancing students to the highest level of functioning, might seem to have little in common, similar activities are often used in both and with similar, positive results.

There are questions that must be answered in order to implement a program. One involves referral to the program. Who gets in? How is increased risk measured? Is participation in the program suggested or mandated? The enrichment program reported by Jeffreys (2001) relied on self-referral by the students. Jeffreys suggests that more examination be done to look at characteristics of those who participate in this manner.

Another consideration for a program is the cost. If extra classes are taught and extra mentors or coordinators are required, there is cost involved. If the classes are credit generating, at least some of the cost is absorbed by the students. Many of the programs examined began with the support of grant money; some noted that they were able to become self-supporting after the initial start up expenses. Even extra assessment costs and is an issue; standardized tests cost money and there may be additional expenses for personnel to administer the exams.

Another positive intervention is the availability of a person for whom student success is their primary concern (Gardner, 2005). This retention specialist may serve as a contact person for needed services and a cultural broker for the system of higher education. Individual student crises are not often studied but may certainly affect student success. The use of faculty mentors or coaches as well as peer mentors are the most often mentioned interventions in the literature. This personal connection with the program, with education and with nursing is directly in alignment with The Caring Imperative. The University of New Mexico in Gallup has an associate degree nursing program where the usual majority is in the minority. There are only from 10-15% white, non-Hispanic students. Over 50% of the student population is Native American. Using a combination of interventions, including a retention specialist, the attrition rates have dropped from around 30% in 2003 to 6% in the fall 2006 semester. At the same time, the NCLEX-RN® pass rate has increased from just over 80% to over 85%.

Perhaps even of greater interest than enrichment or remedial programs are changes in curriculum and teaching methods to increase student success. Appropriate cultural assessment of students, use of The Caring Imperative and consideration of varied learning styles as well as other best educational practices would benefit all students, not just those designated at-risk or even self-identifying as needing assistance. There is not enough available data that document the overall benefits of these practices to support student success. It would be interesting to see comparisons of student retention and NCLEX-RN® pass rates between programs that have similar student populations but use very different teaching methods and styles.

There does seem to be adequate evidence that something can be done to increase student success, even minority student success. The best interventions for any particular program would be individualized to consider the student population and the school. Using The Caring Imperative to plan caring, supportive, culturally sensitive behaviors would increase student success. The uncaring behavior would be to do nothing or to do nothing differently if students are not successful. The cost of unsuccessful nursing education is nearly immeasurable. The profession loses. Educational systems and nursing programs lose. But, most of all, the student loses. This is the greatest loss of all. As if most minority individuals have not had their fair share of hardships, we ask them to take 20 credit hours or more of prerequisites, then when they fulfill

their end of the bargain, we allow them to fail once they get into the nursing program. Who cares for them in their loss of self-esteem, of future income, of "face" among their family and cultural relatives, of a profession they wanted so badly?

As a profession, nursing education needs to do far more than that represented by a handful of schools providing little, no, or grossly belated individual assistance and caring. As professionals, nursing educators, spawned from the "Caring Imperative" need to show a lot more care when educating minorities. If for no other reason, nursing educators need at least to attempt to amend what we have done and left undone to the hundreds if not thousands of men and women over the past decade who hoped for a nursing career only to have it quashed mid-stream by failing out with little or no assistance on our part. If we practice the Caring Imperative, doing whatever it takes to assist an individual in his or her academic endeavors, we will then truly open the harbor of compassion.

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