

Addressing the Challenges of Nursing Student Attrition

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ABSTRACT

With the passage of the Affordable Care Act and as the number of aging and diverse individuals in society increases, access to health care will expand and the need for more competent and diverse nursing graduates will increase. An adequate number of nurse graduates is imperative to meet societal demands; however, this is complicated by high nursing student attrition rates. This article examines the need for more nurses (including those from diverse backgrounds), current attrition rates among schools of nursing, at-risk student characteristics, and previous attempts to increase student success. Applying the evidence to practice, findings from a multipronged approach to increase student success within an associate degree nursing program located within a historically Black college and university in the midwestern United States is discussed. The program's successes and opportunities for improvement are examined, as well as the recommendations for other nursing programs facing issues with student attrition. [*J Nurs Educ.* 2013;52(x):xxx-xxx.]

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Low numbers of nurse graduates, high attrition rates, and lack of minority nurse graduates are common concerns among many schools and departments of nursing (Beacham, Askew, & Williams, 2009; Jeffreys, 2007; Kennedy, Fisher, Fontaine, & Martin-Holland, 2008; Newton & Moore, 2009). On average, attrition rates have been reported to be 50% for students enrolled in baccalaureate nursing programs and 47% for students enrolled in associate degree nursing programs (Newton & Moore, 2009; Peter, 2005). For minority nursing students, these attrition rates can be even higher, ranging between 15% and 85% (J.D. Gardner, 2005; Gilchrist & Rector, 2007; Symes, Tart, Travis, & Toombs, 2002). High attrition rates are a concern for society, as health care demands are expected to rise due to an increasingly aging and ethnically diverse population and expansion of access to care (American Association of Colleges of Nursing [AACN], 2012b; Juraschek, Zhang, Ranganathan, & Lin, 2012; United States Census Bureau, 2012). Therefore, it is essential that schools and programs of nursing look carefully at their attrition rates, seek to understand their student population needs, and determine the best strategies to increase student success.

By understanding the current attrition rates among nursing schools, at-risk student characteristics, and attempts at increasing student success, nursing school administrators and faculty can gain insight into the issues related to attrition and determine the potential methods to increase success within their own programs. Findings from a multipronged approach to increase student success within an associate degree nursing program located within a historically Black college and university in the midwestern United States will be discussed in this article, in addition to recommendations for other schools and programs of nursing.

THE NEED FOR MORE NURSES

The recent downturn in the economy has eased the need for RNs in many communities across the United States as nurses postpone reducing their work hours and delay retirement (Buerhaus, Staiger, & Auerback, 2009). However, this is likely to be temporary due to the number of RNs who will be eligible to

retire and the growing number of individuals aged 65 years and older who will need nursing services (AACN, 2012b; Buerhaus et al., 2009; Colalillo, 2007; Starck, Love, & McPherson, 2008). The findings from the 2008 National Sample Survey of Registered Nurses (U.S. Department of Health and Human Services Health Resources and Services Administration, 2010) noted that the median age of a RN in 2008 was 46 years. The implication is that approximately 50% of the current RN workforce is within 20 years of retirement (Juraschek et al., 2012).

At the same time, the need for nursing services is increasing. The United States Census Bureau (2012) reported that the population of individuals aged 65 and older is expected to grow significantly in the coming years, from approximately 43.1 million in 2012 to 92 million in 2060. Health care costs rise for older adults (those 65 and older) as they continue to age, consuming one quarter of Medicaid expenditures (Hoover, Crystal, Kumar, Sambamoorthi, & Cantor, 2002; Porter, 2012). Also, the Affordable Care Act (U.S. Department of Health and Human Services, 2013) will have implications for the nursing workforce. This legislation, which mandates health care for all U.S. citizens, will provide access to care for an estimated 32 million more Americans who are currently uninsured (DeParle, 2010). With more individuals accessing health care, there will be an increase in the need for health care providers, including nurses (AACN, 2012b; Juraschek et al., 2012).

In addition to the need for an overall increase in the number of nurses, there is a need for increased ethnic and racial diversity in the nursing profession. A brief published by the U.S. Census Bureau (Humes, Jones, & Ramirez, 2011) reported that the number of minorities living within the United States has increased in all 50 states over the past decade. Some states, such as Hawaii, New Mexico, Texas, California, and the District of Columbia, already show a majority-minority in which more than 50% of the population is represented by minorities (Humes et al., 2011). However, this increase in racial and ethnic diversity is not represented in the RN workforce. The U.S. Department of Health and Human Services (2010) reported that 83.2% of the RN population is White, non-Hispanic; however, White, non-Hispanic individuals comprise only 65.6% of the general U.S. population.

Current nursing programs also lack broad diversity in their student bodies. Although minority nursing student enrollment has slowly grown and is generally representative of minorities enrolled in all U.S. colleges (Kaufman, 2010), enrollment is still not representative of the U.S. population. The AACN (2012c) noted that in 2011, 28% of students enrolled in generic baccalaureate programs represented a racial or ethnic minority. Similarly, the National League for Nursing (2012) reported that in 2011, 27% of enrolled associate degree students represented a racial or ethnic minority. Increased numbers of minority nurses are needed to provide quality and culturally appropriate care to an increasing racially and ethnically diverse U.S. population (Beacham et al., 2009; Bednarz, Schim, & Doorenbos, 2010; Childs, Jones, Nugent, & Cook, 2004; J.D. Gardner, 2005; Gilchrist & Rector, 2007; Gilliss, 2010; Kennedy et al., 2008; Rosenberg & O'Rourke, 2011). To accomplish this goal, nursing programs must attract, retain, and graduate more racially and ethnically diverse students.

NURSING STUDENT ATTRITION

The need for more nurses is evident. However, graduating adequate numbers of competent and diverse nurses has proven to be a challenging task. Jeffreys (2007) noted the attrition of nursing students is presenting "grave obstacles" (p. 406) in alleviating the shortage of nurses. Although attrition rates are exceedingly high and problematic for many programs, there is also an overwhelming number of applicants seeking admission into nursing programs. The AACN (2012a) reported that more than 75,000 qualified nursing applicants were turned away from nursing programs in 2011. The question for many programs and schools of nursing with many applicants is "How do we determine who will succeed?" One potential solution is to identify and address risk factors that impact student success.

WHO IS AT RISK?

Nontraditional students have been one group of individuals identified as having an increased risk for attrition (Rudel, 2006). Nontraditional students have been described as students who are older, ethnically diverse, and who enter into college with varying degrees of academic aptitude (Jeffreys, 2007; Rudel, 2006). Older, nontraditional students often have multiple stressors, including financial strain, employment constraints, and familial responsibilities (Bednarz et al., 2010; Jeffreys, 2007; Norman, Buerhaus, Donelan, McCloskey, & Dittus, 2005; Ramsburg, 2007; Rochford, Connolly, & Drennan, 2009). Ethnically diverse students are at increased risk for attrition (Kennedy et al., 2008; Love, 2010) due to additional barriers, including lack of awareness of their cultural needs by nursing programs, feelings of isolation, lack of faculty support, academic disadvantages, and language barriers (Brown & Marshall, 2008; J.D. Gardner, 2005; Gilchrist & Rector, 2007; Wong, Seago, Keane, & Grumbach, 2008). Lack of college preparation is also a risk factor for nontraditional students, as they present to colleges and universities in need of remediation (Rudel, 2006).

Various demographic, personal, and academic risk factors have also been utilized to identify at-risk students. These at-risk criteria include students employed more than 16 to 20 hours per week (Peter, 2005; Rochford et al., 2009), low ACT® reading subscores (Gilmore, 2008), lack of social support (Rudel, 2006), failure in a beginning nursing course (Jeffreys, 2007), grade point average (GPA) less than 2.5 (Peter, 2005), student scores less than 76% on any examination (Ramsburg, 2007), and poor performance in verbal and written communication, math, reading (Symes et al., 2002), and anatomy and physiology (Higgins, 2005). These risk factors are compounded for colleges that have open-enrollment policies and those that accept more at-risk students (Higgins, 2005; Rudel, 2006; Wells, 2003). Open enrollment institutions often admit a larger percentage of nontraditional and high-risk students in need of remediation, compared with colleges that have more selective admission criteria (Rudel, 2006). It is recommended that at-risk students be proactively identified and remediation implemented or attrition will continue at unacceptably high rates (Gilmore, 2008; Jeffreys, 2007; Ramsburg, 2007; Symes et al., 2002).

ATTEMPTS TO INCREASE STUDENT SUCCESS

For institutions admitting at-risk populations, many departments and schools of nursing have instituted success programs to provide student support and decrease the rate of attrition. Various programs to support the at-risk student reported in the literature include the Learn for Success Program (Peter, 2005), the PLUS (Partnership in Learning for Utmost Success) Program (Wells, 2003), the TRIO Student Support Program (Wells, 2003), the Student Success Program (Symes et al., 2002), the Strive for Success Program (Ramsburg, 2007), enrichment programs (Colalillo, 2007), and peer tutoring programs (Higgins, 2004).

Other studies within the literature retrospectively examined successful nursing students and interviewed students to determine at-risk behaviors and helpful interventions (Jeffreys, 2007; Norman et al., 2005; Rogers, 2010). Common themes emerged, including the need for faculty mentorship and coaching (Colalillo, 2007; Gardner, Deloney, & Grando, 2007; Peter, 2005); social and peer support (Rudel, 2006); activities to improve study habits (Peter, 2005; Rogers, 2010); test-taking skills (Peter, 2005; Rogers, 2010); time management (Ramsburg, 2007); skill building in reading, writing, and mathematics and communication and stress management skills (Gardner et al., 2007; Jimenez, Navia-Osorio, & Diaz, 2010; Rogers, 2010); peer tutoring (Higgins, 2004); financial aid or budgeting assistance (Symes et al., 2002); self-care (Jimenez et al., 2010); and faculty use of various teaching strategies (Rogers, 2010; Sayles & Shelton, 2005).

Social support was noted to greatly contribute to the success of minority students. Social support strategies from the literature included supportive families (Barbatis, 2010; Beacham et al., 2009), social involvement (Barbatis, 2010), faculty (Brown, 2008) and peer support (Barbatis, 2010; Beacham et al., 2009), increased cultural awareness (Brown, 2008; Bednarz et al., 2010), sensitivity among faculty (Anakwe, 2002; Childs et al., 2004), minority support meetings (Beacham et al., 2009; J. Gardner, 2005; J.D. Gardner, 2005), and mentorship with minority nurses in the community (J.D. Gardner, 2005). One of the most frequently occurring suggestions to improve minority student success included that of faculty mentorship (Barbatis, 2010; Beacham et al., 2009; Brown, 2008; Colalillo, 2007; J. Gardner, 2005; Wong et al., 2008).

METHOD

Applying the Evidence to Practice

Taking into consideration the findings and suggestions from the literature, a three-pronged approach to increase student success was designed and implemented in an Associate of Applied Science (AAS) nursing program located within an open-enrollment, historically Black college and university in the midwestern United States. The average attrition rate for students enrolled in the AAS program during fall 2007 through spring 2010 was 53% for all students enrolled and 62% for racial-ethnic minority students. Multiple strategies were used to increase student success in an effort to decrease the overall attrition, thereby increasing the number of graduates, includ-

ing minority graduates, to the community. On the basis of a literature review and review of characteristics of the institution, the three-pronged approach included a student success program (SSP), AAS nursing program admission changes, and faculty development.

Student Success Program

Upon enrollment into the AAS fundamentals nursing course (NUR 101), the SSP was offered to students who were identified as at risk. Selection of at-risk criteria was chosen based on literature findings and review of previous student academic transcripts. Academic transcripts for 152 students who had entered the AAS nursing program during fall 2007 through the spring 2010 were reviewed. An Excel[®] database was created in which student prerequisite/corequisite course grades, ACT scores, grades in nursing courses, and completion of the AAS program were collected. The data indicated that 56% of unsuccessful nursing students had ACT scores less than the national average, 72% had repeated the Anatomy and Physiology (A&P) course, 61% were enrolled in basic math or basic algebra courses, and 50% had been enrolled in basic English courses. Student course failures or withdraws occurred most frequently in the fundamentals nursing course (NUR 101), with an average of nine failures per cohort of 25 to 26 students.

On the basis of these data, at-risk students identified to participate in the SSP included students with lower than the national average ACT score (20 or below), students who had taken any remedial-level English or math course, and students who repeated A&P. Nine of 26 students enrolled in the fundamentals nursing course were identified as at risk during fall 2011, and 10 of 24 students were identified as at risk during spring 2012. Of the 19 students identified as at risk, four students represented a racial or ethnic minority population.

Recruitment. The identified at-risk students were then recruited into the voluntary SSP. Recruitment efforts included sending letters to at-risk students inviting them to participate, follow-up telephone calls, and utilization of face-to-face informational sessions. Of the 19 students identified as at risk, 18 agreed to voluntarily participate in the SSP. Three participants represented a racial or ethnic minority population. Written permission from all participating students, as well as institutional review board approval from the university, was obtained.

Program Implementation. Program participation included utilization of group meetings and individual mentoring with the program director that coincided with the students' 16-week fundamentals nursing course (NUR 101). Each student was provided with a binder that included eight learning modules. These learning modules were presented to SSP participants in a 1-hour group learning environment every other week. Modules included Introductions/Learning Style Inventory, Study Skills/Test Taking Strategies, Time Management/Budgeting, Student Stressors/Positive Coping Mechanisms, Organization, Problem Solving, Simulation/Critical Thinking, and Moving Forward/Future Plans for Success.

Throughout the eight modules, students were also introduced to additional university services available, including counseling and career services and financial aid. Previous successful nurse graduates also made presentations to the SSP participants,

providing their own personal tips for success. Individual mentoring sessions (averaging 15 to 30 minutes) with the program director were provided every other week, as well as access to online journaling. Data collection included student attendance at the group modules and attendance at individual mentoring sessions. Midterm and final grades in NUR 101 were also collected for SSP participants. Program evaluation surveys were administered to the SSP participants at the completion of the SSP. Engagement in the SSP program was measured by 80% attendance of participants in modules and mentoring. A successful outcome of the program would be an overall reduction in the total number of NUR 101 failures.

AAS Admission Changes

A second concurrent approach to increasing success within the AAS program included reevaluating the AAS admission standards. AAS faculty admission committee members were involved in evaluating current admission policies and making suggestions for change in an effort to improve the AAS nursing program attrition rates. Faculty representatives from each AAS nursing course were represented on the admission committee. Changes to the admissions process were divided into two phases. Phase I included review of current admission standards, comparison of standards with other AAS nursing programs, review of previous nursing student prerequisite/corequisite grades and repetition of nursing courses, and the determination of new admission criteria. Phase II included evaluating the selection process for admission and the determination of any new process for selection of applicants. A time line was developed, and faculty AAS admission committee members met monthly during the fall 2011 to spring 2012 academic year. Meeting minutes were distributed to all committee members during the course of the academic year, and progress of the committee was shared at bimonthly faculty meetings.

Faculty Development

The third prong involved implementing changes within the classroom setting to improve student success. Faculty-focused workshops were provided during fall 2011 regarding facilitating different learning styles in the classroom setting and providing a culturally sensitive classroom. These topics were found within the literature to support student success and increase cultural sensitivity (Anakwe, 2002; Bednarz et al., 2010; Gilchrist & Rector, 2007; Noble, Miller, & Heckman, 2008; Sayles & Shelton, 2005). The workshops were presented in a 1-hour lecture format, with time devoted for active learning activities and an open question-answer session. All full-time faculty were invited to attend both workshops. Evaluations were provided to faculty attendees following the workshop for immediate feedback. Follow-up surveys were distributed to faculty members approximately 8 weeks and 16 weeks after workshop attendance to determine the continued application of the learned strategies.

RESULTS

In evaluating each of the three strategies to increase student success, some efforts proved to be more promising than others. Three predominate risk factors were represented among the

19 students identified as at risk. Seven of the students had repeated A&P, eight had been enrolled in remedial math, and eight of the students had lower than national-average ACT scores. Enrollment in remedial English was not a risk factor for any of the students. Two of the at-risk students had three risk factors present; all other students had only one risk factor identified. Of the 18 participants, attendance in the SSP group modules was 78%, and participation in individual mentoring was 79%. In spite of a reasonable level of participation, 10 (56%) of 18 of the SSP participants went on to fail or withdraw from NUR 101. In retrospectively reviewing the at-risk factors among the SSP participants who failed NUR 101, no one risk factor was more prevalent than another. However, of the students who had three risk factors ($n = 2$), both were unsuccessful. Of the four minority at-risk students identified, three chose to participate in the SSP, and all three successfully completed NUR 101. Failures also occurred within NUR 101 among non-SSP participants. Ten additional students who did not have any identified academic risk factors failed NUR 101 during fall 2011 and spring 2012, and thus did not participate in the SSP.

Student participants evaluated the SSP program highly, with ratings of 4.3 and above on a 5-point scale, with 5 being the highest. The categories the students evaluated included teaching methods, instructor performance, and general evaluation of the program as a whole. Students also provided answers to open-ended questions regarding the SSP program. Favorable comments included: "the encouragement to refocus/rethink about things that were hindering my progress," "that there were several ways to do things that could help benefit your life, so many helpful hints for future success," and "this program helped me a lot." Common themes from written statements included positive feedback regarding the topics presented, faculty mentorship, and use of every-other-week group meetings and mentoring. Lack of time was the most common barrier to participation cited by students.

Changes to the AAS admission criteria also occurred. Admission committee members reviewed 17 other AAS programs located within the same state with above-average national NCLEX[®] pass rates, developed a table, and compared the various schools' admission criteria. Comparison data included entrance GPAs, required prerequisite courses, use of a nursing entrance examination, entrance ACT scores, and the use of a competitive admission process. It was noted that the required GPA for the AAS program at the study institution was one of the lowest reported. In addition, the data collected revealed that many schools within the state utilized a competitive process for admission, whereas the AAS program being evaluated utilized a less selective process and admitted all students who met the minimum admission criteria.

Retrospective data were also collected and evaluated by the admission committee on student cohorts from fall 2007 to spring 2010. Utilizing these data, the committee determined that the A&P grades were a strong indicator when evaluating student success. Students who received a grade of C or D or withdrew from A&P were found to repeat a nursing course more frequently than students who received an A or a B grade. Chi-square calculations were made using a degree of frequency of 1 and a significance level of 0.05, and it was determined that students who repeated

A&P or received a C grade were statistically more likely to fail or withdraw from a nursing course (Table). Utilizing these data, the admission committee members agreed to include A&P as a prerequisite to admission and to increase the minimum GPA from 2.0 to 2.5. Phase II—amending the selection process—was postponed. The committee members decided to wait to make further changes to the admission process until they could evaluate the effects of the admission criteria changes.

Evaluations and surveys from the faculty workshops were also collected and analyzed. All full-time faculty attended both workshops. Evaluations collected after the workshop included such categories as ability to meet program objectives; accuracy and utility of content; appropriateness of content for various nursing faculty; effectiveness of teaching methods; clarity of visual aids, handouts, and oral presentations; and applicability of information to practice. All categories received scores of 4.7 or higher on a 5-point scale, with 5 being the highest. Follow-up surveys collected at approximately 8 and 16 weeks following the workshop indicated that faculty members were continuing to use a variety of techniques within their classrooms to facilitate both learning styles and cultural sensitivity. To accommodate a variety of learning styles (Sayles & Shelton, 2005), faculty continued to use videos, pictures, mnemonics, simulation, audio sounds and recordings, artwork, concept mapping, rhymes and jingles, skits and acting, group learning, electronic journaling, and methods to support teaching–learning in the Millennial generation (Morin, 2007; Revell & McCurry, 2010; Sherman, 2009; “Study Tips,” n.d.). To increase cultural sensitivity within the classroom, continued use of strategies included storytelling (Koening & Zorn, 2002), avoiding ethnocentrism (Bendarz et al., 2010; Hughes & Hood, 2007), role-playing (Shearer & Davidhizar, 2003), researching cultural practices (Anakwe, 2002), and role modeling for students (Roberson, Kulik, & Pepper, 2002).

DISCUSSION

The results of the work described are somewhat mixed. Some of the outcomes suggest areas of needed improvement and some suggest promising approaches. In regard to the first prong—the SSP—the overall outcome of decreasing the total number of course failures in NUR 101 was not achieved. One potential explanation may be found by looking specifically for academic or nonacademic factors in the students who were not identified by the selected at-risk criteria but who failed NUR 101. Ten additional students who were not identified as at risk failed or withdrew from NUR 101 in fall 2011 and spring

TABLE
Chi-Square Calculations to Determine Statistical Significance of Students Likely to Fail or Withdraw From a Nursing Course

| Success in Nursing | Observed | Expected | O1-E1 | (O1-E1) ² | (O1-E1) ² /E1 |
|---------------------------------------|----------|----------|-------|----------------------|--------------------------|
| Pass ^a | 51 | 33 | 18 | 864 | 26.18 |
| Fail ^a | 19 | 37 | -18 | 864 | 23.35 |
| Null hypothesis rejected ^a | | | | | $\chi^2 = 49.53$ |
| Pass ^b | 23 | 39 | -16 | 256 | 6.564 |
| Fail ^b | 59 | 43 | 16 | 256 | 5.953 |
| Null hypothesis rejected ^b | | | | | $\chi^2 = 12.517$ |

Note. O1 = observed frequencies; E1 = expected frequencies.

^a Null hypothesis: The observed frequency (47%) of A and B grades in Anatomy and Physiology will match the expected norm for passing nursing courses in the Associate of Applied Science (AAS) nursing program. Using a degree of frequency of 1 and a significance level of 0.05, if the χ^2 observed is equal to or greater than the χ^2 critical (3.841), the null hypothesis can be rejected.

^b The observed frequency (47%) of a C, D, or F grade or a withdraw (W) in Anatomy and Physiology will match the expected norm for passing nursing courses in the AAS program. Degree of freedom = 1; significance level = 0.05.

2012. The identification and remediation of both academic and psychosocial risk factors (i.e., addressing multiple risk factors), have been well documented in the literature and found to be effective in improving retention rates (J. Gardner, 2005; Love, 2010; O'Donnell, 2009; Rochford et al., 2009; Rudel, 2006). Therefore, examining only academic at-risk factors may have limited the ability to reach both identified and nonidentified students in need of supportive services.

The number of student failures in NUR 101 among SSP participants could also be related to the timing of the SSP and the use of voluntary student participation. The use of strategies presented in the SSP modules and faculty mentoring was well supported in the literature (Colalillo, 2007; Gardner et al., 2007; Higgins, 2004; Jimenez et al., 2010; Peter, 2005; Ramsburg, 2007; Rogers, 2010; Rudel, 2006; Sayles & Shelton, 2005; Symes et al., 2002). However, in successful programs, such as the Learn for Success Program (Peter, 2005), participation was mandatory. Mandatory participation may have led to more successful student outcomes. In addition, the timing of the SSP may have been more beneficial if offered to students prior to enrollment in NUR 101. Student evaluations of the SSP noted that time was one of the most common barriers to participation. Fully participating in a success program, while adjusting to the rigors of a nursing curriculum and meeting the demands of familial and work responsibilities, may have been too difficult for this mostly nontraditional student population. Providing students with the tools and resources prior to entering their first nursing course may have been more effective in increasing student success.

Although some areas for improvement were noted, some successes did result from the use and development of the SSP. The academic criteria utilized for selection of at-risk students did successfully identify half of the total number of students who went on to fail NUR 101. All minority students who participated in the SSP ($n = 3$) were successful in completing NUR 101. Student evaluations of the SSP indicated that the

program was well received and students liked many aspects of it. Success may also have resulted from the changes made to the admission requirements (inclusion of A&P as a prerequisite and increasing the minimum GPA). However, the impact of these changes will take time to evaluate. The large number of student applicants created a waiting list for enrollment. At the time of implementation of the more stringent admission criteria, the nursing program had an 18-month wait list of accepted students. Therefore, the effects of any changes to the admission criteria would take almost 2 years to be shown.

Inferences can also be made in regard to the positive feedback received from the faculty workshop evaluations. Surveys revealed that faculty members were using varied techniques within their classrooms to facilitate both learning styles and cultural sensitivity after workshop attendance. For universities admitting more nontraditional and ethnically diverse students, providing varied learning experiences and culturally sensitive classrooms will become even more important in supporting an ideal learning environment for all students. As the background and preparation of students entering into nursing education is changing, institutions have an obligation to meet the needs of this varied student body and be able to provide services that lead to successful student outcomes.

CONCLUSION

As societal demands increase for more professional nurses, including those from diverse backgrounds, schools and programs of nursing will need to face the challenge of student attrition. In identifying approaches that will best serve the students and the institution, multiple strategies are needed. Proactive identification of the at-risk student, using both academic and psychosocial risk factors, has the potential to decrease attrition through the use of well-timed supportive programming. Early implementation of interventions are important to success, as waiting until the student enters the nursing curriculum may not allow sufficient time for successful integration of strategies. In addition, admission criteria must be reviewed to determine whether the current admission standards are meeting the program's desired outcomes. Programs whose mission is to admit more nontraditional students must reexamine this mission in relation to their ability to meet the students' needs when entering rigorous nursing programs. Less stringent admission criteria will allow more students the opportunity to pursue their nursing career dreams but may also result in increased attrition.

Schools striving to improve attrition must reflect upon their admission process, develop their faculty, review their student data, and consult the literature for effective programs to use as a roadmap to improve success. Tackling the complex and multifaceted problem of student attrition in a planned, meaningful way will help to address an imminent nursing workforce challenge. Implementing changes to assist at-risk students achieve their professional dreams and goals have an equally high value.

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