A remediation program was implemented during the semester break in an associate degree nursing program to increase the pass rate on the NCLEX-RN of at-risk students in a targeted medical-surgical nursing course. Through the use of a course management system and an adaptive quizzing program, participants were facilitated to take an active role in their learning. Faculty mentored students and witnessed a transformation in participants through graduation. Ultimately, success of these at-risk students in passing the NCLEX-RN helped maintain this nursing program’s pass rate.

The quantitative measures of a nursing program’s success are retention, graduation, and ultimately, NCLEX-RN pass rate. Educators invest considerable time and energy using evidence-based admission criteria that are predictive for student success in a nursing program. Despite these efforts, there are additional qualitative variables that have an impact on student success in coursework and progression to graduation. Higher attrition rates have a negative effect on students, nursing programs, and the healthcare system. To address the higher passing standard on the NCLEX-RN and a decreasing pass rate in a third-semester nursing course in our associate degree program, a student-centered remediation program was initiated. To use time more effectively, the program was initiated during the semester break, when course content could be previewed early. Technology was used to enhance learning and facilitate communication.

Student Success Considerations

Predictors of student success include preentry criteria, academic performance in clinical nursing courses, and demographic characteristics. The community college is a gateway for culturally diverse students who face certain barriers that may impinge on the ability to achieve success in college. According to Jeffreys, academic factors that are considered most important for retention and success in undergraduate nursing education include personal study skills, study hours, attendance, the class schedule, and access of general academic services (library services, tutoring and counseling). Limited time, poor self-awareness, lack of information about opportunities to learn, financial difficulty, and inadequate family and peer support are barriers that hinder successful academic performance for some students. Although many of these factors cannot be changed, interventions that facilitate efficient utilization of time and resources will maximize student participation.

The National Council of State Boards of Nursing continues to raise the standard for the NCLEX-RN in terms of level of competence for beginning nurses. In response, educators can develop interventions that promote success, such as those that encourage effective integration and application of knowledge, test-taking strategies, and measures to decrease test anxiety and improve self-confidence. Unfortunately, many at-risk students seek remediation assistance when they are failing and already overwhelmed with the rigors of nursing coursework. Identifying students for remediation at or about midpoint of a program allows sufficient time for adequate preparation before program completion and could result in success on the NCLEX-RN.

Much of the literature focuses on remediation strategies using bundles of interventions including teaching study skills, stress management techniques, practice examinations, advisement, and mentoring. However, it remains unclear which of these remediation interventions have a positive effect and which do not. Repeated practice with multiple-choice items has long been the cornerstone of a nursing remediation program. Opportunities to interact with a variety of items related to course content can assist students to identify the concepts being tested, the rationales, and common misconceptions. This affords students the ability to practice critical thinking, prioritization, prediction, and problem solving. When students are given this opportunity, without a negative impact on grades, they may be more willing to engage more frequently in the activity.

An adaptive quizzing system is designed to provide students with an environment in which they can effectively and
efficiently practice and master course content. With adaptive quizzing, a student’s ability level is determined and continuously updated by their responses to calibrated items with known difficulty. This technique affords students the opportunity to self-monitor progress and increase active participation in learning. Adult learning principles, which emphasize active involvement in the learning process, are an important indicator of academic behavior and essential for enhancing success.

Successful remediation programs recognize the different learning styles of the participants and provide a variety of learning activities. Web-based activities that expand the learning environment to fit the needs of the learner can contribute to increased student participation in the learning process. For example, integrating carefully vetted videos from YouTube can promote dialogue about course content and encourage learners to develop new insights and skills. Assisting students to become more actively involved with course content with different modes of technology presents a unique opportunity to integrate experiential learning and adaptation to technology. The role of faculty is also significant in promoting student success. As educators, our goal is to provide an interactive, caring, and positive learning environment to ensure successful graduation of nurses who are competent to practice. Faculty encouragement and guidance are also important in retention. Motivating students to take control of their own learning to meet their identified learning goals is a key component of any remediation program.

Methodology

With the use of previous nursing course grades, at-risk students were identified in a third semester nursing course and invited to participate in a program that could increase their success in the following semester and, ultimately, the NCLEX-RN. The program implementation began during the semester break and continued through graduation. After a brief orientation meeting outlining the requirements for participation, all 11 invited students enthusiastically enrolled in the program. A major component of the program included access to an online NCLEX adaptive quizzing program that would be used to reinforce course content with specified mastery levels and quizzes. Students were required to complete 200 questions per week with an emphasis on reviewing the rationales. In addition, they had access to the course management system (CMS), which was used to highlight useful resources and important concepts. The CMS environment allowed faculty to integrate an interactive methodology and to organize content in a meaningful way. This included modules, diagrams, and links to resources and short videos such as those from YouTube.

Perhaps the most vital component of the program was faculty communication in the form of group e-mails that were intended to encourage and motivate students with a supportive approach. As faculty monitored use of the activities in the CMS and adaptive quizzing program, they sent individual reminders to students who fell behind in participation. More frequently, students would contact faculty when they did not meet the program expectations and reaffirmed their commitment to make up the time. Faculty became “cheerleaders from the sidelines,” motivating students by encouraging them to stay on a path to success. Students were given the opportunity to meet with faculty if they desired, but more often, the exchange of communication was online with brief face-to-face encounters. When faculty are supportive and portray an interest in student success, positive student outcomes are often achieved.

Outcomes

At the conclusion of the remediation program, it was evident that there was significant improvement in student success, as 91% of the program participants passed the course, progressed to the final semester, and graduated. Student evaluations unanimously rated the program as very helpful, indicating that the weekly e-mail reminders were motivating. Student comments included “I like that the videos are short and to the point” and “Thanks for the encouragement, happy to get an early start on a hard semester.” For faculty, the ability to monitor use of the adaptive quizzing program was a valuable tool for providing timely feedback and fostering participation. Encouragement in the form of short e-mails led to increased faculty-student communication as students would often respond to the messages. Another finding noted was increased use of the Nursing Resource Center, where study groups met and the CMS was accessed.

It is unclear if 1 component of the program had more of an impact on success than another or if it was a combination effect. This may be related to the variation of learning styles among participants, as student success is dependent on multiple factors. Interventions that target at-risk students should be varied and accessible. Providing students with multiple learning strategies may be beneficial in addressing the varying ways in which students learn. Students formed study groups on their own and invited others to join. They appeared transformed and remained motivated as they demonstrated success in subsequent course work. In addition, these students continued to meet through the completion of the NCLEX-RN. The final benefit of the intervention was realized when 80% of these at-risk students passed the higher standard NCLEX-RN in 2013 on their first attempt. Whereas many nursing programs were experiencing a decline in NCLEX pass rate, this community college’s rate remained above the national and state averages.

Conclusion

Ensuring success with at-risk students is dependent on a combination of mentoring and teaching-learning strategies that assist the learner to become a confident student and a critical thinker. Faculty-to-student mentoring appears to be a vital component of this transformational process. Strategies involving early student engagement with course content, a supportive learning environment, and weekly follow-up by faculty to review learning needs were found to be beneficial to progression, retention, and NCLEX achievement. Success in the initial course empowered students to actively participate in ongoing activities and become lifelong learners.

References


