

Helping Minority Students From Rural and Disadvantaged Backgrounds Succeed in Nursing: A Nursing Workforce Diversity Project

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Abstract

Introduction: Retention and graduation rates among minority nursing students continue to be a challenge in nursing education. While multiple strategies have been implemented to increase diversity in the nursing workforce, disadvantaged minorities from rural backgrounds often face challenges that create barriers to their academic success. The RUN 2 Nursing program, a nursing workforce diversity program funded by the U.S Department of Health and Human Services, recognized the need to use faculty mentoring and peer tutoring to make a difference in the academic success of minority nursing students from rural and disadvantaged backgrounds.

Methods: Data were collected from a convenience sample of 62 minority students and 22 faculty mentors. Descriptive statistics including mean and standard deviation were used to report the aggregate data from the mentoring survey.

Findings: Retention rate of 93% and NCLEX-RN pass rate of 93% were achieved for the minority students enrolled in the nursing workforce diversity project. These findings suggest the peer and faculty mentoring were effective support strategies.

Conclusions: Preparing a well-skilled, competent and diverse workforce of health professionals is a priority in eliminating health disparities, particularly in rural and medically underserved

communities. NWD programs, such as the RUN 2 Nursing program, with well-structured mentoring and peer tutoring services can make a difference in nursing workforce diversity.

Keywords: Faculty mentoring, minorities, nursing workforce diversity, peer tutoring, rural, disadvantaged

Helping Minority Students Succeed in a Rural Nursing Program: A Nursing Workforce Diversity Project

The Are (R) You (U) In (N) to (2) Nursing (*RUN 2 Nursing*) program, located at a regional university school of nursing in rural southeast Georgia, was a nursing workforce diversity program funded by the U.S. Department of Health and Human Services. This three-year comprehensive program was implemented from 2010-2013 with a one-year no cost extension that ended in June, 2014. The goal of the program was to provide minority nursing students with the necessary skills to successfully complete their BSN education to practice as registered nurses in rural Georgia. The major aims of the *RUN 2 Nursing* program were: 1) to increase the graduation and NCLEX-RN exam pass rates of minorities enrolled in the nursing program, and 2) to reduce the attrition rate by creating a welcoming culture that nurtured BSN minority students academically and socially to achieve success. Faculty and students at the school of nursing are 86% and 24% Caucasian and African American respectively. With very little diversity, the school of nursing is committed to increasing diversity in its baccalaureate program. Increasing minority representation in the nursing workforce is a priority in eliminating health disparities that exist among populations.

Southeast Georgia, the geographic focus of the *RUN 2 Nursing* program, is characterized by a diverse population with a high incidence of poverty, food insecurity, limited access to educational opportunities and lack of health insurance, conditions that impact health equity in the

region. Great disparities in poverty rates exist by race and ethnicity: 23.8% of Blacks and 33.2% of Hispanics compared to 10% of whites live in poverty statewide (U.S. Department of Agriculture, Economic Research Service [USDA, ERS], n.d.). In Georgia, 144 of 159 counties (91%) represent medically underserved areas (MUAs); 137 (86%) counties represent designated health professional shortage areas (HPSAs); and, 19 counties are designated significant Primary Care Shortage Areas with scores of 17 or greater (on a range of 0 to 25). According to *America's Health Rankings* (United Health Foundation, 2015), of the 50 states, Georgia ranks 40th in overall health measures, 41th in incidence of diabetes, 36th in cardiovascular disease, and 46th in insurance coverage. Based on these statistics, it is clear that the health of Georgians could benefit from a competent and diverse nursing workforce.

According to the American Association of Colleges of Nursing (AACN), increasing the racial and ethnic diversity of students in nursing programs is a high priority in achieving a diverse workforce in the nursing profession (American Association of Colleges of Nursing, 2015). Past studies have shown that educationally and economically disadvantaged minority students face unique challenges to success including lack of financial support, inadequate emotional and informational support, insufficient academic advising and program mentoring, and structured support mechanisms (Amaro, Abriam-Yago, & Yoder, 2006; Dowell, 1996; Loftin, Newman, Dumas, Gilden, & Bond, 2012). These challenges can obstruct nursing students' success by causing early dropout, poor academic performance and by having a negative impact on their educational experiences. The AACN, the American Nurses Association and the National League for Nursing (NLN) support programs focused on educationally and economically disadvantaged minority students (American Nurses Association, 2011; National League for Nursing, 2010; Smedley, Butler, & Bristow, 2004) Despite this support from nursing

organizations, diversity in the nursing workforce has not fully come to fruition (Health Resources and Services Administration, 2013).

A considerable amount of research shows that mentoring and tutoring services can improve retention and graduation rates for educationally and economically disadvantaged minority nursing students. Abriam-Yago (2002) identified three types of mentors to meet the needs of minority nursing students: professional nurse mentors, peer mentors, and faculty mentors. Each type of mentor has a specific role in helping educationally and economically disadvantaged students with academic, informational and emotional support (Abriam-Yago, 2002). Several authors have discussed the importance of faculty mentors and student tutors in supporting students' academic success (Alvarez & Abriam-Yago, 1993; Robinson & Niemer, 2010; Sutherland, Hamilton, & Goodman, 2007). Sutherland et al. (2007) described the Affirming At-Risk Minorities for Success (ARMS) program that utilized faculty-student advisement, mentoring, and Seminars in Success to increase retention, graduation, and National Council of Licensed Examination for Registered Nurses (NCLEX-RN) pass rates for disadvantaged students in nursing. The results suggested that these interventions were effective and eliminated the effects of ethnicity on NCLEX-RN pass rates among minorities and non-minorities (Sutherland, et al., 2007).

A similar peer-based mentor tutor program (PMTP) described by Robinson and Niemer (2010) focused on implementation and outcomes for at-risk students in a traditional baccalaureate nursing program. They found that mentees earned significantly higher test scores throughout the year and a higher average GPA than a control group. However, the program failed to change attrition rates when compared to previous years (Robinson & Niemer, 2010).

Numerous studies have documented success for both faculty mentoring and peer tutoring services as individual strategies. However, there are few studies in which both faculty mentoring and peer tutoring services were combined to support academic improvement and to determine the effectiveness of this synergistic approach in achieving desired outcomes. The *RUN 2 Nursing Program* not only combined faculty mentoring and peer tutoring, but also offered other support services such as scholarships, leadership training, and cultural sensitivity workshops. The purpose of this paper is to add to the current body of knowledge on best practices to increase diversity in the nursing workforce.

Description of the RUN 2 Nursing Program

The RUN 2 Nursing program was a three-year funded program aimed at supporting the Health Resources and Services Administration's (HRSA) initiative to increase diversity in the nursing workforce to meet the goals of Healthy People 2020. Specifically, the program addressed retention and graduation rates of minorities from rural and underserved communities in baccalaureate education. Retention and graduation activities designed to support academic success of minority nursing students included peer tutoring, faculty mentoring, NCLEX preparation for licensure, leadership and professional training, diversity training, and workshops on study and time management skills. Scholarships were provided to assist students with financial needs including cost of tuition, books, transportation to clinical sites, and other expenses.

Recruitment of Program Participants

Minority nursing students were recruited to the program via classroom presentations by program staff, fliers, information posted on the program's website, and by word of mouth from students and faculty. Minority included members of racial and ethnic groups who were

economically and educationally disadvantaged. Eighty-five percent of the program participants were African Americans, 10% were Hispanics, and 5% were other. Student recruitment to the program was done in the fall and spring semesters. Interested students had to apply to be admitted into the program. Program eligibility criteria were as follows: (a) cumulative GPA of 3.0 or higher; (b) identifying as a minority; (c) educationally and/or economically disadvantaged; (d) resident of a rural or underserved county in the state of Georgia; (e) intent to practice in a rural or medically underserved community after graduation; and, (f) a written essay on choosing nursing as a career. The length of participation in the program varied from a minimum of one year to two years depending on the class level of the student at the time of enrollment.

Students admitted into the program received an acceptance letter and attended a mandatory information session. The information session discussed the program, services, expectations, and addressed students' questions. All students admitted into the program, regardless of their class standing, were assigned to faculty mentoring and peer tutoring. The program was managed by a project director who was responsible for day-to-day operations and two graduate assistants. The program was supported by the school of nursing administrators and faculty.

Ethical Considerations

Permission and approval was obtained from the author's institutional review board (IRB) to use collected program data for research and publication. Informed consent was also obtained from program participants to use their collected program data for research purposes. While collection of program data was for reporting of program outcomes to the funding agency, participants had the option to refuse consent for inclusion of their data in any program research or publications. Data were kept confidential; all identifiers were removed and anonymity was maintained for research purposes.

Faculty Mentoring and Recruitment

The success of the RUN 2 Nursing program relied heavily on the school of nursing faculty's willingness to mentor students in the program. Of the 22 faculty at the school of nursing, only one was a minority. This made it even more important that the faculty who were recruited to be mentors understood their role and commitment to work with students from diverse backgrounds. Recruitment of faculty as mentors was done in the fall semester during the school of nursing's annual faculty institute where information was presented to faculty about the program.

Mentor eligibility criteria were: (a) a voluntary commitment to mentor assigned minority students in the RUN 2 Nursing program; (b) ability to work with students from diverse backgrounds; (c) ability to meet at least three times or more with assigned mentees; and, (d) ability to complete a faculty-mentee survey form to measure outcomes of the mentoring relationship. A one year commitment was required from faculty mentors. The commitment was renewable each year for the three year funding period. Faculty received a small stipend for compensation of their time and commitment. Each faculty mentor was assigned an average of six mentees.

Peer Tutoring and Recruitment

Upperclassmen nursing students that demonstrated outstanding academic performance were recruited to provide peer tutoring to at-risk nursing students. Peer tutors were recruited based on self-nomination and/or faculty referral. Since this was a paid position, hired applicants were both screened and interviewed. The peer tutor position was advertised on the university's human resources website. Interested applicants had to complete an application, submit an

academic transcript with a cumulative GPA of 3.5 or higher, have achieved a B or better in nursing courses, and submit a reference letter of recommendation.

The position required each peer tutor to provide 15 hours of tutoring per week, provide course specific academic support, provide individual and/or group tutoring, and work with culturally diverse students. In addition, peer tutors were required to keep attendance logs and monitor the academic progress of their respective assigned students. Each peer tutor was paid \$12/hour and their ability to continue on in the tutor position was dependent on their successful academic performance each semester. Those who were unsuccessful were released from the position.

The RUN 2 Nursing program staff supervised the peer tutors. Six peer tutors were used per semester, with two tutors per each junior level class. There were a total of 14 tutors for the three-year period, of which, six were minorities. Peer tutors provided tutoring to junior classmen and to struggling classmates that approached them for assistance. At the beginning of each semester, peer tutors, with permission from faculty, made class presentations to students in their assigned junior classes. The presentations included an introduction, information about the tutoring service and its benefits, hours, location, and contact information. Peer tutor profiles and tutoring information were posted on the program's website and on a bulletin board located in a common area for baccalaureate nursing students. Although peer tutors were specifically assigned to minority students enrolled in RUN 2 Nursing, they also assisted non-minority students referred by faculty. Each minority student was required to maintain weekly contact with his/her assigned peer tutor regardless of academic performance in the nursing program. This was necessary for continuous monitoring of each student's academic progress and to minimize oversight of

academic issues that could be problem solved early on. Each peer tutor maintained an average of 8-10 students.

Mentoring and Peer Tutoring Evaluation

Faculty mentors completed an evaluation form on each mentee at the end of each semester. The faculty-mentor and mentee surveys (see Table 1 for the measured items and results) were created by program staff based on RUN 2 Nursing program objectives, outcomes, and literature on mentoring. The surveys were 18-item questionnaires that used a Likert scale that ranged from (1) strongly disagree to (5) strongly agree. The faculty-mentor survey measured each mentee on attendance, motivation, and academic progress. The mentee survey measured their perceived experiences, level of satisfaction, and academic success. Each student mentee and faculty mentor completed the survey at the end of each academic semester. The surveys were distributed to faculty and mentees via email. Surveys completed by faculty and mentees were returned via email or a drop-box at a designated location. Results of the collected de-identified surveys were shared with faculty mentors and mentees to improve mentoring outcomes. The presentation of results to mentors and mentees (each done separately) helped in two ways: it allowed us to objectively validate the results with the stakeholders, and allowed us to identify other issues and concerns that were not addressed or captured by the surveys. Compiled results from faculty mentors and students from 2010-2013 are presented in Table 1.

Students who received services from the RUN 2 Nursing peer tutors completed peer-tutor evaluation forms at the end of each semester for us to gauge the effectiveness of the tutoring. Results from the tutoring evaluation were shared with tutors for continuous improvement.

Results of Faculty Mentoring

Descriptive statistics including mean and standard deviation were used to report the aggregate data from the mentoring survey (see Table 1). Sixty-two students evaluated faculty mentors on availability, encouragement, faculty support and feedback. The mean score for “availability” was 4.86 out of 5 (SD=0.30). This item addressed the frequency of faculty contact with students, availability outside of scheduled meetings, and friendliness of mentors. The mean score for “encouragement” was 4.96 out of 5 (SD=0.08). This item assessed the role of the mentor in establishing an environment that encouraged growth of students in the nursing program. Additionally, this item also assessed the enthusiasm of the mentor about the student’s academic career and aspirations beyond the BSN degree. The mean score for “faculty support and feedback” was 4.84 out of 5 (SD=0.38). This item assessed faculty mentors’ guidance and assistance provided to mentees struggling in academic coursework and constructive strategies to achieve academic success.

The mentors’ evaluation of participants also produced similar findings to that of mentees. The mean score for the subscale item measuring “eager to learn” was 4.74 out of 5 (SD=0.14). This item assessed readiness of students for rigorous academic work in the nursing program and also to acquire new skills. The mean scores for the subscale items measuring “seeking support” and “quality of mentor-mentee relationship” were 4.84 (SD=0.19), and 4.79 (SD=0.28) respectively. The mean score for overall mentor experience was 5 out of 5 (SD=0.00). Mentors were very satisfied with the students’ enthusiasm for the work and their academic progress in the nursing program.

Table 1

Summary of findings from Mentoring and Tutoring Evaluations

<i>Evaluations</i>	Subscale Items	Mean	SD
<i>Student Evaluation of Peer tutors</i> (n= 55)	Academic enhancement	4.72	0.36
	Support and feedback	4.74	0.42
	Student relationship	4.71	0.35
	Student satisfaction	4.86	0.33
<i>Faculty Mentors Evaluation of Students</i> (n=68)	Eager to Learn	4.74	0.14
	Seek for Support	4.84	0.19
	Enthusiastic	4.81	0.24
	Relationship	4.79	0.28
<i>Student Evaluation of Faculty Mentors</i> (n=62)	Overall Experience	5.00	0.00
	Availability	4.86	0.30
	Encouragement	4.96	0.08
	Support and feedback	4.84	0.38
	Student Satisfaction	4.87	0.33

Ranges from 1 “Strongly Disagree” to 5 “Strongly Agree”

Results of Peer Tutors’ Evaluation

Descriptive statistics, including mean and standard deviation were used to report the aggregate data from the tutoring survey (see Table 1) that measured peer tutors on academic enhancement, support and feedback, student relationship, and student satisfaction. The mean score for “academic enhancement” was 4.72 out of 5 (SD=0.36). Academic enhancement assessed the tutor’s ability to create a learning environment that encouraged the learner’s growth and knowledge to achieve academic success. The mean score for “support and feedback” was 4.74 out of 5 (SD=0.42). This item assessed the tutor’s ability to provide appropriate guidance to support the student learners to develop a study plan and time table to improve academic performance in course work. The mean score for “student relationship” was 4.71 out of 5 (SD=0.35). This item measured availability, accessibility, and personal interactions of peer tutors

with student learners. The mean score for “student satisfaction” was 4.86 out of 5 (SD=0.86). This item assessed the overall experience and satisfaction of students with their tutors.

Minority Retention and NCLEX-RN Pass Rates

The effectiveness of a Bachelor of Science in Nursing (BSN) program depends on these three important outcome measures: retention, graduation, and NCLEX-RN pass rates. The ability of a BSN program to measure its program outcomes is essential to achieving overall student success. Among the 68 minority BSN students who enrolled during the four-year implementation of the program, the retention rate was 93% and the attrition rate was 5.8% (see Table 2). Students’ nonsuccess was due to academic dismissal from the nursing program as a result of failing two or more courses. Of the 53 graduates, 51 passed the NCLEX-RN on their first attempt, a 96% pass rate. These graduates are now practicing registered nurses in rural and medically underserved communities. Twenty-eight percent of these graduates are currently enrolled in graduate nursing education, and the majority plan to seek graduate education in the future.

Table 2

Enrollment, Graduation, & NCLEX Pass Rate 2010 – 2014

Minority BSN Students Enrolled (N = 68)	Frequency (n)	Percent (%)
Number lost to attrition	5	7.4
Number retained	63	93
Number of graduating	53	78
NCLEX-RN pass on first attempt	51	96
Number of failing NCLEX-RN on first attempt	2	4

Discussion of Findings

The RUN 2 Nursing program met its goal of academically supporting minority BSN students to add to the nursing diversity workforce. While other factors may have contributed to the academic success of the minority students in the program, the role of faculty mentoring and peer tutoring made a significant difference. Reflecting on program activities over the past four years, there were three main lessons learned that can be applied to other nursing workforce diversity programs.

Key Lessons Learned

Build a community of support for the program.

The success of the program depended heavily on faculty, staff, and supportive leadership at the school, college, and university. With a focus on retention and academic success of disadvantaged racial and ethnic minorities, student buy-in and support of the program were essential. Classroom presentations on the program and its purpose were conducted each semester which helped to garner support from both minority and non-minority students. Emphasis was placed on the benefit of diversity in the nursing workforce to improve health outcomes for all populations.

Create a nurturing environment to support academic success.

A nurturing and welcoming environment can make a difference in the academic success of all students. Many minorities complete their K-12 education in predominately Black institutions and receive limited exposure to main stream culture prior to college. This leaves many of these students burdened with a lack of skills to navigate through college. A caring and nurturing environment where minority students perceive faculty and peers to be open, nonjudgmental,

trustworthy, culturally sensitive, approachable, non-intimidating, and able to listen is crucially important. A non-threatening environment such as this can promote effective positive interaction and student learning.

To successfully attract and retain these students, it is essential to provide psychological safety, a sense of belonging, and support of self-esteem and self-actualization. To decrease attrition, retention strategies should include tutoring, academic support, career planning, and improvement of cultural competency skills among academic advisors and faculty members.

Train faculty and students to be diversity minded.

All students are culturally unique. For this reason, it is important that committed faculty mentors and peer tutors assess each student for behaviors, beliefs, and values which may present unique needs and may impact academic success for the student. In addition, communication barriers including language and regional accents can create challenges for disadvantaged students. Cultural training and sensitivity are crucial to support inclusion and acceptance of students from disadvantaged backgrounds that may feel marginalized.

While there is a lack of diverse faculty and students in most nursing programs, non-minority faculty mentors and peer tutors can be equally effective. It takes a committed faculty and dedicated students to recognize the need to “go the extra mile” to support students from disadvantaged backgrounds that are capable of succeeding.

Program Sustainability

Though funding for the RUN 2 Nursing program ended in June 2014, faculty mentors and students have expressed the desire to continue mentoring and tutoring. Peer tutors will document their tutoring as service hours on their resume. Faculty will continue with the process of referring at-risk students for tutoring. The minority students involved in the program formed the first ever

Black Students Nursing Association to provide informal mentoring to pre-nursing and nursing students. The project director serves as the advisor for this group. In addition, the project director will continue to hold monthly meetings with students to provide coaching, guidance, and encouragement. The commitment from students and faculty to use volunteer hours to sustain the program demonstrates its perceived value.

Conclusions

Although the percentage of minorities in the US is estimated to increase to nearly 50% in 2050 (U.S Census Bureau, 2011), these individuals represent a smaller proportion of the health professions workforce. Preparing a well-skilled, competent and diverse workforce of health professionals is a priority in eliminating health disparities, particularly in rural and medically underserved communities. NWD programs, such as the RUN 2 Nursing program, with well-structured mentoring and peer tutoring services can make a difference in nursing workforce diversity. It takes a team of faculty and students that embrace diversity and are a part of a nurturing environment that exhibits caring and a sense of belonging to support the academic success of minority nursing students. There is a need to increase the number of practicing minority RNs in rural communities to reduce health disparities and improve health outcomes for all populations. There is no doubt that minority nurses are needed to bridge the cultural gaps between racial/ethnic minority patients in the U.S. health care system.

Supporting Agencies

Department of Health and Human Services, Health Resources and Services Administration

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