



## Creative and Innovative Mentoring Program for Improving Diverse Students in Education

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### Abstract

Despite the increased diversity and multicultural transformation of the population within the United States, the majority of nurses in the workforce are found to be educated from Caucasian backgrounds. At present, there is minimal inclusion of students from underrepresented ethnic minorities, as well as students from the rural Appalachian region. This article describes an innovative and creative mentoring program that was implemented at a university to increase the diversity of the student enrollment in nursing. Through the use of specially trained nurses from the community, students received specialized mentoring, guidance and encouragement for academic and social success. Additionally, students received academic scholarships and monthly stipends to help eliminate financial hardships. With the guidance of the nursing mentors with students, there was an increase in the acceptance rate of underrepresented ethnic minorities and rural Appalachian students for the School of Nursing program.

### Keywords

Mentoring, Diversity, Ethnic, Minority, Diverse

### Introduction

The NN-CAT Nursing Network-Careers and Technology Mentoring Program (NN-CAT) was established in 2013 at a regional university in the southeastern United States whose faculty were concerned about the shortage of a diversity of ethnic minorities entering nursing school. The purpose of the program was to provide individualized nursing mentors, scholarships, tutoring, and stipends to guide students to success in their pursuit to nursing school. Students were selected from those enrolled in the university's pre-nursing program and from the local community college. Eligibility for application for the NN-CAT program included that students must be United States citizens or permanent residents, be an underrepresented ethnic or non-ethnic minority (African-American, Native American, Asian-Pacific Islander, or Hispanic-Latino) or raised in the rural Appalachian counties surrounding the southeastern university.

The university is located in an impoverished rural mountainous area with a composition of families with unmet needs, a multitude of issues impacting social and structural determinants of health disparities, and socioeconomic barriers. These present significant

challenges to the rural Appalachian communities. This mountainous region has four distressed counties and the family incomes are 67 percent or less of the national average and poverty rates are 150 percent or greater than the national average. An on-going disparity in these communities is the lack of access of transportation to medical appointments, grocery, hardware and clothing stores, and to pharmacies. The population in the program's region is ethnically diverse, with 85.2% of the population surveyed as white, 1.8% surveyed as African-American, 9.4% surveyed as Native American or Alaskan native, 0.9% surveyed as Asian, and 2.7% indicating other [1].

### Literature Review

The literature related to diversity mentoring programs reveals several unique programs. Banister, Bowen-Brady, and Winfrey reported that the development of the Clinical Leadership Collaborative for Diversity in Nursing program by the College of Nursing and Health Sciences and the University of Massachusetts Boston and Partners Health Care, utilized nursing mentors who were experienced, minority clinical nurses or nurse leaders to guide junior and senior diverse students through their baccalaureate program [2]. Sixty-four minority students have participated in the program with a zero rate of attrition and low job turnover among graduates. Students rated mentors as being strong with leadership skills, acceptance, and guiding them while mentors rated the students highest in the ability to communicate. Mentors met weekly and student mentees recorded in a journal their progress. Financial contributions to the students were provided by Partners Health Care, the integrated health care system that serves New England.

In 2012, Recruitment and Retention of Alaska Natives into Nursing (RRANN) was developed. Native American students received financial support, peer support, a quarterly newsletter, and academic mentoring. The program was recently evaluated by graduates. Twenty-two graduates reported in a descriptive survey that the success of the program was through having a student success facilitator, monthly stipends, and a quarterly newsletter. Additional enrichments were pot luck dinners and environmental outings [3].

A comprehensive literature review of the Cumulative Index of Nursing and Allied Health was conducted by Terregosa & Morin [4]. A review of 222 articles regarding programmatic and teaching

initiatives for ethnically diverse students for promoting academic success was conducted. Successful initiatives were peer mentoring, faculty-student mentoring, social networking, academic support, and financial support. Beacham, Askew, & Williams [5] examined strategies to increase diverse student participation by assigning mentors and tutors upon entering the nursing program. Mentors are members of Eliza Pillers Registered Nurses of Mississippi organization, the oldest African-American nursing organization in the United States. The mentoring relationship is twofold as it teaches students about the challenges and barriers in nursing school. Secondly, it instills confidence and motivates the student.

## Theoretical Framework

Mentoring is one of the foremost techniques to help socialize students to the profession of nursing. Mentoring transpires through having an experienced nurse leader guide the student through learning the various roles of becoming a professional nurse. Green and Puetzer [6] developed a classic strategic mentor framework of mentoring with the focus upon having experienced nursing mentors leading and guiding novices through a collaborative partnership that allowed the mentee to grow and develop.

The issues of recruitment, training, and retention of experienced nursing staff remains an ongoing business strategy of nursing service in many health care facilities throughout the globe. The implementation of a structured mentoring program recognizes the need to develop and maintain relationships between the new and the experienced nurses. The terms of mentor and mentee are defined within a structured orientation program, highlighting specific roles and responsibilities of each. The use of other staff as preceptors and resources is also utilized to enhance diversity in skill and knowledge development of the novice nurse [7]. The value of clinical tracking forms, planning calendars, and feedback mechanisms are stressed to ensure success in monitoring this program in a longitudinal way. The NN-CAT program has utilized mentor and student progress notebooks to review mentoring progress and student success. Problems associated with the assignment of mentors with novice nurses should be addressed in the framework to ensure that new novices are successful in being guided in their clinical roles and the nursing profession. The NN-CAT program director reviews the strength of the relationships between the mentors and the mentees each month and assures that the relationship continues to be positive for both individuals.

The NN-CAT program has based the foundation and the evaluation for the program on this conceptual framework and has utilized the nurse mentor as the guide and support person to assist the novice student towards academic success. The program additionally has an annual structured training program for mentors that present techniques for aiding students from diverse backgrounds and ethnicity towards positive outcomes with academic work. The mentoring training has a component of the program that focuses upon cultural competence and ensuring that mentors are aware of the realities of mentoring students that may be from a different ethnic background than from their own. To assure this component in the training program, the program director presents ten different case scenarios that showcase students and their challenges and barriers that may arise as they are admitted to the university environment. The mentors and the program director problem solve with each of the case examples and solicit plausible solutions for guiding the student towards a successful outcome. This is a main goal of the NN-CAT program. This conceptual framework was selected to become the structured foundation and the process for evaluation for the NN-CAT program with the basis upon nurse leaders guiding students towards academic success and acceptance within the baccalaureate nursing program.

## Program Development and Description

The NN-CAT Nurse Mentoring Program provides a qualified nursing mentor, a scholarship, and stipend, for tuition and monthly living expenses to help alleviate financial distress for students. All

scholarships were made possible through the generosity and funding of a grant program from the nursing division of the Health Resources Services Administration (HRSA). The NN-CAT Nurse Mentoring Program mentors have wide nursing career specialties, and are of diverse backgrounds and gender. The nursing mentors are from the following gender and ethnic backgrounds: Male (two), Female (seven), Hispanic-American (two), rural Appalachian (one) and Caucasian (six). Program qualifications for mentors include applicants should have a baccalaureate of nursing degree and employed currently in nursing. Nurses should be willing to serve 10-20 hours a month with direct mentoring. The program has nine mentors with advanced academic nursing degrees ranging from graduate to doctoral level of education.

Consistent with best practices, the mentors are educated in cultural competence and have had formal training in mentoring. The program director developed a creative mentor training program that included evidence-based practices such as high degree of trust, consistent involvement, and devoted personal time between the mentor and mentee [7]. Other successful strategies include tutorials and journaling [8]. Each of the mentors and students have a journaling notebook to write in on a weekly basis and include the progress that they have made towards academic success. Journals are anonymous and are collected yearly to qualitatively evaluate the program. Each of the mentors in the program meet weekly with their student mentees via face-to-face encounters, virtual Skype meetings, or through texting. The purpose of the mentoring session with the mentee is to review the week's progress with academic classes such as the sciences, mathematics, anatomy, entrance examinations, and to help arrange tutoring for the student if needed. Additionally, mentors help students discuss any personal issues that may be challenges to them such as having to work at an outside job for employment to raise extra money for meals and gasoline. Mentors are provided reimbursement of \$25.00 per hour as compensation for their time as a mentor. The average time that each mentor spends with their mentee on a weekly basis is from one to two hours for problem-solving and guidance.

An innovative approach to providing support to mentors is through attendance at monthly meetings where information is shared with the other mentors and the program director for the program. These meetings have been approved for the program for assessing the students' progress through the ethics committee. The evaluation process of using quantitative and qualitative surveys for the mentors and students annually at both the beginning and the end of the year were approved by the Institutional Review Board of the university. This process is conducted to ensure the confidentiality of the information that the students share with their mentors each week. Additionally, this process ensures the confidentiality of the program outcomes information that is evaluated at the end of the annual program. An additional process of confidentiality is conducted on an annual basis when the university attorney reviews the process of sharing confidentiality with guidance from FERPA.

The primary purpose of meetings is the sharing of mentee challenges and successes through a round table discussion titled "Round Robin". At the beginning of each year, the mentors are asked to sign a form of Oath of Confidentiality that ensures that each mentor maintains private information concerning students within the meeting time. Each mentor shares academic, social, familial or behavioral issues that mentees face. Students have a plethora of complications in their young lives, and the "Round Robin" activity allows each mentor to seek guidance, advice, and counsel. Recently, a mentor shared that her student who was Native American discovered that she was pregnant. Other mentors offered encouragement and suggested that the student obtain a leave of absence. Sharing episodes such as these bring camaraderie to the mentors.

Annually, the NN-CAT Mentoring Program presents a family friendly reception and a presentation is provided by a local nursing minority leader to encourage students to overcome challenges and barriers. For the past three years, the annual reception has been hosted

**Table 1:** The Total “Non-White” count subtracts students listed as “white”, non-resident alien” or “race and ethnicity” unknown.

Pre-Nursing					
Academic Year	2011	2012	2013	2014	2015
Total “non-white:	43(327)	46(349)	55(380)	29(236)	37(288)
	13.1%	13.2%	14.47%	12.28%	12.84%
Nursing					
Total “non-white:	3(89) 3%	4(111) 4%	4(100) 4%	4(89) 4.49%	8(89)8.9%*

\*It should be noted that there is an increase in the number of minority students in admissions for the BSN program in the fall of 2015. This is an accomplishment of an increasing number of underrepresented ethnic minority students that have been successfully mentored and accepted into the BSN fall program through the NN-CAT Nursing Mentoring Program of July 1, 2013-June 30, 2016.

by a member of an ethnic minority group and the speakers have been female (two African-American) and male (Hispanic-American). These speakers have presented lessons from their own lives and of the hardships that they have overcome to be successful as a nursing leader. These presentations have been received positively by students, mentors, faculty, and family members in attendance at the reception. Additional support is provided through the bi-annual Community Advisory Board that consists of 12 nursing leaders from the rural mountain region and that are from a widely diverse background of nursing fields. These participants range from nursing leaders from local Native American tribal members, African-American hospital directors, the Hispanic-American regional area health educational director, and Caucasian nursing educators. The purpose of this Community Advisory Board is to offer guidance, direction, and leadership for promoting student success for the program director and mentors of the NN-CAT program. The Community Advisory Board has been strength for the NN-CAT program and presents sound advice to the program director.

### Program Outcomes

Program outcomes are based upon successful retention of pre-nursing students, and application and acceptance into the nursing program. The NN-CAT program currently has 17 students. Eight of the pre-nursing students have applied and been accepted into the nursing program. The remaining nine students are pre-nursing students and are being guided by their mentors towards achieving academic success as well as acceptance into the baccalaureate program. The outcome for the NN-CAT program is based upon the number of students that are successfully admitted to the BSN program. Prior to the initiation of the NN-CAT program, there were only three to four students annually admitted to the program that were from diverse and ethnic minority backgrounds. Since the beginning of the NN-CAT program, the program has shown success with an increase of eight students for enrollment for the year of 2015-2016. This positive trend has been noted this year in [table 1](#).

### NN-CAT Program-School of Nursing-Demographics on Ethnic Diversity and Program Acceptance of Students from Diverse Backgrounds

The methodology implemented to acquire data from both students and mentors is through the provision of both descriptive quantitative as well as qualitative survey evaluations which describe their regard for the program which are administered at the end of the academic year. Program results indicate that mentors report that mentees are academically and professional focused, although have many challenges. Examples of these qualitative survey results include the following:

“I have met with my mentee at the minimum of once a week and often two to three times a week to assist them with studying for exams. Through the mentoring relationship, my student has become more academically focused upon being successful.” **Mentor One**

“The most predominate role that I have had is to have gone from being a cheerleader to one of becoming an academic guide to help her to prepare for exams. I also helped her to navigate the university system and save money for her college expenses.” **Mentor Two**

“I encouraged my two mentees to become involved with other minority student events on the campus and I have helped them to become confident and positive in their academic studies and lives.”

### Mentor Three

Mentees’ results show that mentors are supportive both academically and from a leadership standpoint as they pursue entry into the professional nursing program. The program mentee results additionally show that the mentors’ direction for tutoring for academic testing has been shown to be successful. Examples of student qualitative reflections on the NN-CAT mentoring program are the following:

“The NN-CAT program provided me with some amazing mentors who really guided me through the application process and helped me find ways to study and cope that really impacted me and I feel that they truly helped me. Also the stipend I received for the year aided me once I was accepted into the program to cover some of the costs of nursing school.” **Student One**

“With the NNCAT program’s help, I gained not only financial aid which I so badly needed but also a mentor. My mentor has changed my life for the better and I will keep in touch with her beyond the program because she is not only a great role model but has also become my friend when I needed one. My mentor encourages me to always keep on top of my course work, look into tutoring, checks in on how my personal life is going, and lastly answers all the questions I have. When she does not have answers for me she looks into who would know the answers. My mentor helped me time manage and also supported me when I did not get into the nursing program the first time applying to the program. We adjusted what steps I needed to take to get into nursing school. The program has also assisted me with SAT and TEAS tutoring sessions which were highly beneficial and other pre-nursing students did not have access to. I attended all of the tutoring sessions my school schedule allowed.” **Student Two**

“This Program has helped to encourage me to reach my goals, by encouraging me to attend tutoring for extra help. Also, by giving me a mentor that is full of helpful resources, useful information, and positive words when needed.” **Student Three**

Student mentees’ results have additionally revealed that length of time of one hour for weekly mentoring and relationship with their mentor is highly satisfactory and that they have found their mentor is someone that they can rely upon for guidance in their life and with their university education:

“My mentor met weekly with me and was always available for me at other times when I needed assistance with classes and studying. He showed me new ways of studying and I would not have made it through pathophysiology without his help” **Student Four**

“The NN-CAT has provided me a great mentor that has helped me to not encounter any barriers I was bound to encounter. He has provided me with support throughout all of my endeavors within nursing school and continues to support me as I get ready to graduate and begin applying for job.” **Student Five**

Challenges for the program to have successful outcomes for the students to enter nursing school range from socioeconomic to personal issues and many of the students have the necessity of requiring extra money beyond using their monthly NN-CAT stipend for meals. Additional challenges have been those that have included the necessity of caring for their young children, and one student had to travel two hours east of the campus on the weekends to work in the local Walmart to contribute money for her parents’ welfare due to their disabilities. Other barriers have included the time that sororities and fraternities activities have occupied for the student during the week, which has prevented them from fully focusing upon their studies. Weekly meetings to both discuss these challenges and to problem solve for solutions have been shown to be successful with students. Mentors and students have met face-to-face in person in a conveniently located study room or cafeteria within the university campus.

Students were directed to the campus tutorial center for academic challenges, and to the Department of Financial Aid for assistance with financial issues that were preventing them from focusing upon their academic studies. Students have also enjoyed using texting and Face time to connect on a frequent basis with their mentors to keep their mentor abreast of problem solving with these challenges. The measures of academic success for the students in the NN-CAT program were successful passing of their academic courses with a C or above, which allowed the students to continue onward in the nursing program.

### **Sustainability of the NN-CAT Mentoring Program for the Future**

Sustainability plans for the continuation of the NN-CAT mentoring program have been confirmed through efforts to seek area hospitals' financial support to both mentors and mentees. Plans are to have mentors receive one paid days' vacation monthly to mentor and mentees will receive a scholarship and stipend on the condition of working for two years after graduation from nursing school. Regional hospital support increases the diversity of the nursing personnel within each hospital, and helps to increase diversity within the mountainous rural region for the nursing profession.

An additional recommendation to foster programs such as NN-CAT are to solicit the assistance of graduate students from ethnic minority backgrounds that have been successful in the program to serve as NN-CAT mentors to future students. This would provide a means on continuation for the graduate to provide mentorship for other students that were from similar ethnic backgrounds. It is in this way that mentoring programs may provide the pathway to success for

increasing ethnic diversity in both nursing education, as well as the nursing profession. Mentoring programs may hold the key to help alleviate the current dire need of increasing the nursing profession with graduates from underrepresented ethnic minority backgrounds. It is hoped that other universities and colleges throughout the nation will initiate similar mentoring programs to promote an increase in ethnic minorities within the nursing profession to help care for the increasing number of minority citizens in the nation's population.

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