ORIGINAL RESEARCH

A review of minority recruitment and retention models implemented in undergraduate nursing programs

Jill Augustus Dapremont

School of Nursing, University of Memphis, Loewenberg, United States

Correspondence: Jill Augustus Dapremont. Address: The University of Memphis, Loewenberg School of Nursing, 610 Goodman Street, Memphis, TN 38152. Email: jdaprmnt@memphis.edu

Abstract

Background: Recruiting, retaining, and graduating more minorities to diversify the nursing workforce is a national priority, which can lead to a decrease in healthcare disparities. The purpose of this review of literature is to highlight models developed and implemented in nursing education that focus on recruiting, retaining, and graduating minorities, and the degree of success obtained.

Methodology: Electronic database searches of Cumulative Index of Nursing and Allied Health Literature (CINAHL), EBSCOhost, ProQuest, and ScienceDirect were conducted using specific keywords: minority, recruitment, retention, graduation, nursing students, models. The search yielded seven articles published in peer-reviewed journals that described each schools model, strategies, and the implementation process used to recruit, retain, and graduate minority nursing students. A tool was developed by the researcher for this review then used to analyze articles for inclusion.

Results: Findings revealed that successful models included various combinations of academic support, mentoring, student financial support, and community partnerships that were effective in recruiting, retaining, and graduating minority students in nursing education.

Conclusions/: The articles reviewed highlighted that when combinations of multiple strategies that includes; academic support, mentoring, student financial support, and community partnerships were used in minority nursing student populations there was increased minority retention. All articles included in this review reported minority nursing students who were given support prior to entrance and during nursing school, recruitment, retention and graduation increased.

Key words
Minority, Recruitment, Retention, Graduation, Nursing students, Models

1 Introduction

As the nation grows more diverse, there is a documented need for greater minority representation in the nursing workforce. The American Association of Colleges of Nursing (AACN) an organization credentialing nurses to ensure their practice is consistent with established standards for patients, in conjunction with other healthcare leaders recognize a strong connection between nursing profession ability to provide quality patient care and a diverse nursing workforce [1, 2].

Attracting students from underrepresented groups in nursing—specifically individuals from Black, Hispanic, Asian, American Indian, and Alaskan native backgrounds—is important, especially given the predictions by the Census Bureau 2008 that projects minority populations will become the majority by 2042 [1]. (AACN, 2011) A more diverse nursing workforce increases health care access and quality in ethnically diverse populations [8, 19, 21]. Increasing diversity in the healing professions is one way The Sullivan Commission (2004) has identified will bring about changes in health disparities by having providers who are culturally similar to and sensitive to patients in healthcare's medically underserved communities [2, 6, 21]. In 2008, a partnership between the Robert Wood Johnson Foundation (RWJF) and Institute of Medicine (IOM) was forged with the purpose of making recommendations for transforming the future of nursing and the way Americans receive health care. For health care reform to succeed nurses must be in position to assume their role. The RWJF and IOM committee report emerged with recommendations that included; providing a seamless, affordable, quality care that is accessible to all and leads to improved health outcomes. Therefore, to tackle the recommendations proposed in the IOM report [4] (IOM, 2012), increasing minority nursing students' recruitment, retention and graduation from nursing education must be addressed. This is important because data from the 2010 Census reported that racial and ethnic groups have grown considerably [3]. (United States Census Bureau, 2010) One solution for addressing the health care needs of a diverse population is to provide a nursing workforce that has nurses who are both culturally and linguistically sensitive [2, 4].

According to the literature there are several studies citing perceptions of what minority nursing students stated helped them succeed and remain in nursing programs [5-9]. Moreover, Noone [11] published a literature review that described strategies that were used in nursing education between 2002 and 2007 to recruit, retain, and graduate more minorities. Yet, recruiting, retaining, and graduating more minority nurses still remains an objective of nursing education. Certain data indicate that minority students who are admitted to nursing programs are dropping out before graduation [14, 15]. In the American Association of Colleges of Nursing (AACN) report [5-9] (2012) on Race/Ethnic students that enrolled in generic baccalaureate nursing programs between 2002-2011, there were increases in enrollment of all ethnic minority groups between 2002- 2011. The study also illuminates a steady decline of Black nursing students starting in 2007-2011and Native American students in 2010-2011. Declining statistics demonstration that minority groups have decreased steadily. Therefore, it is important for nursing schools to know what minority retention models have been implemented and the degree of success that has been achieved.

The National Advisory Council on Nurse Education and Practice (NACNEP) has a purpose to advise Health and Human Resource Administration (HRSA) under title VIII on a wide range of activities for nursing education and practice. NACNEP sets standards for nursing practice and recognized the importance of a racial/ ethnic workforce and its impact on health care. In the 2000 sixth annual report of the NACNEP the committee recommended increasing the capacity of nursing programs to ensure a diverse workforce that mirrors the racial/ethnic composition of society to provide culturally competent care. The NACNEP also provides support and funding for effective maintainable strategies to promote and retain racial and ethnic diversity in nursing education and practice [10]. The NACNEP is committed to ensuring that minority trends in nursing continue to rise so an adequate supply of diverse nurses are available for the future [10].

According to The Sullivan Commission, diversifying the nation's workforce will lead to a decrease in healthcare disparities in minority groups [2]. Therefore, increasing minority recruitment, retention and graduation from nursing programs will help the outcome. This current review describes models used in specific nursing schools to recruit, retain, and graduate minorities and noted the degree of minority retention achieved. The purpose of this review of literature is to highlight models that were developed with focus on recruitment, retention, and graduation of minorities, and then implemented in nursing education. The question that served as the basis for this literature review was:

What minority recruitment and retention models implemented in undergraduate nursing programs were successful at recruiting, retaining, and graduating minorities from schools of nursing?

2 Methods

This review was conducted using the systematic and precise methods outlined by Fink [12] to identify, evaluate, and synthesize the existing body of published literature. Fink's method was applied in this review to discuss models regarding minority student recruitment and retention in nursing programs. Table 1 identifies Fink's seven steps for a comprehensive research review. Fink's seven step method offered a means for the researcher to search for and assess what is known about a particular topic, then to synthesize the results and provide a descriptive review. This seven step method enhanced the rigour. The purpose of this review was to identify models that improved minority student recruitment, retention, and graduation from nursing education.

Table 1. Seven Steps for a Comprehensive Research Review

- Select research questions that guide the review.
- Select bibliographic databases, web sites, and other sources to obtain original literature to answer the research question.
- Choose search terms that frame the research question.
- Complete practical screens of the literature to identify relevant studies using criteria for inclusion and exclusion from the review.
- Complete methodological screens using criteria for evaluating the adequacy of the topic covered and scientific quality of the literature.
- Conduct the review using a standardized form for abstracting data from articles.
- Synthesize the results and provide a descriptive review (qualitative synthesis) or meta-analysis study (statistical combination of results).

2.1 Literature search and screening

Electronic database searches of Cumulative Index of Nursing and Allied Health Literature (CINAHL), EBSCOhost, ProQuest, and ScienceDirect were conducted to obtain articles for review. The key words minority, recruitment, retention, and graduation, each combined with nursing students, were used for each database search. The author conducted individual searches and practical screens to identify a broad range list of potential articles based on inclusion criteria. The inclusion criteria included: 1) English language; 2) published between January 2000 and December 2011; 3) peer-reviewed journals; 4) observational or experimental design; and 5) minority student recruitment and/or retention strategy implemented in an undergraduate nursing program. Opinion papers, policy documents, abstracts for grant funding, dissertations, and thesis were excluded. The reference lists of relevant articles were also searched for additional studies. Articles selected for review were screened independently by the author and two other experts for content and methodological quality using a tool adapted from Fink's checklists for evaluating data collection, intervention descriptions, analysis methods, results, and conclusions. This ensured a uniform screening process. Some articles did not provide statistical data but were included in the study based on reported outcomes. Agreement on content and methodo-logical quality from expert researchers was required for all articles included in this review.

2.2 Data collection and synthesis

The author and two other expert researchers examined each article using a standardized tool developed by the author to ascertain data regarding methods and content. Data included purpose statement, defined terms, assessment tools, program type, sample size, and grant funding (see Table 2). Success was considered if the nursing school had an increase in the number of minority students in their nursing program. Qualitative content analysis was used for data analysis which involved reading and rereading the articles [13], then identifying themes that reflected effective minority recruitment and retention models. Final themes were decided through review, negotiation, and agreement among experts. Results were synthesized in a descriptive review.

Table 2. Models used for Minority Recruitment and Retention

Author (Publication Year)	Purpose	Assessment Tools	Program Type	Sample Size	Grant Funding
Edwards, K., et. al. (2009)	Improve access to quality health care for culturally diverse populations in Oklahoma by increasing minority and educationally disadvantage students graduation	No tool identified. During the project years, graduation rates increased significantly for minority and educationally disadvantaged students.	BSN	Not given	None identified
Etowa et al, (2005)	Increase diversity, foster student learning, and ultimately improve health care for the Black community	No tool identified. Reported a 100% increase in Black student enrollment.	BScN	Not given	Initially funded by the department of Canadian heritage through a bridge-funding program then the school of nursing
Fletcher, et al. (2003)	To facilitate the recruitment, retention, socialization, and successful matriculation of ethnic minority students	No tool identified. Ethnic minority faculty grew from three to nine. Ethnic minority students increased to represent 21% of the total nursing student body.	BSN	Not given	Initiative that originated in 1998 as an administrative mandate
Gardner, J. D. (2005)	Enhance the integration of minority students into a supportive learning environment, provide support by peers and faculty and help minorities feel connected.	No tool identified. Program achieved 100% retention of minority nursing students.	BSN	Not given	Grant funding
Gordon & Copes (2010)	Address recruitment and retention of underserved minority nursing students.	No tool identified Retention rates of CAPS students remain above the University's average retention rate.	BSN	236 students from grades 8th-12th	U.S. Department of Health and Human Services (HRSA) Nursing Workforce Diversity Grant
Sutherland, Hamilton, & Goodman. (2007)	Program purposes To increase program retention, graduation rates, and success on the National Council Licensure Examination for Registered Nurses (NCLEX) for at risk-minority students. Develop and expand partnerships with secondary schools; develop a comprehensive retention plan.	No tool identified Retention and graduation of Arms students and success on the NCLEX-RN were achieved.	BSN	N=64 (ARMS students) N=265 (Non-ARMS students)	U.S. Department of Health and Human Services (HRSA) Basic Nurse Education and Practice Program grant #5 D11HP00129-01

3 Results

Several models were studied in this review. The models included; the recruitment enhancement cultural affirmation project [16], minority retention project, matriculation of ethnic minority nursing students: a university of Mississippi school of nursing approach [18], the coppin academy for pre-nursing success: a model for recruitment and retention of minority

students [20], affirming at-risk minorities for success (ARMS) [19], and recruitment and retention of minority students: diversity in nursing education project [8]. A brief description of each model is provided below.

3.1 The recruitment enhancement cultural affirmation project

Edwards et al. [16] used several strategies to identify minorities and meet project objectives. The Recruitment Enhancement Cultural Affirmation Project (RECAP) was implemented in Oklahoma after the 2008 census revealed emerging trends in minority population growth and increased health disparities in those groups. The project authors used demographic and epidemiological data from Oklahoma [16]. The authors identified an under representation of minorities in professional nursing and nursing education programs [16]. Data was collected from minority individuals in the community, using focus groups. Results reveal minority groups wanted more health care from nurse from their ethnic group or nurses that they felt were culturally competent and wanted to work with them.

First, minority and educationally disadvantage students were identified as soon as they were admitted into their Bachelor of Science in Nursing (BSN) program. Secondly, an intensive orientation was conducted prior to the start of classes. Included in this orientation were test strategies, new teaching approaches, and new software. Thirdly, other supports were used such as academic support, learning style assessments, and adding culturally competent content into the curriculum. Overall, according to this study, during the project years, minority and educationally disadvantaged students' graduation rates increased significantly [16]. In addition 96% of the minority students involved in the project passed the NCLEX on the first sitting and 100% passed on the second testing.

3.2 Minority retention project

Gardner's [17] project motivation was centered on a high percentage (29%) of students leaving the California school's nursing program citing academic reasons. Of that percentage, 80% were minority students [17]. Gardner, in consultation with faculty, concluded that minority students needed academic support. A grant was submitted and funded for one year [17]. The grant design centered on barriers minority students stated they encountered. The following strategies were implemented to address the barriers cited: addition to the program of a retention coordinator, mentoring network, language partnerships, family night, health care seminar, minority support group, faculty updates, and minority pre-nursing student outreach. The results for the year 2003-2004 yielded 100% retention of minority students.

3.3 Matriculation of ethnic minority nursing students: A university of mississippi school of nursing approach

Fletcher, et al. [18] initiated an approach for a school of nursing in the state of Mississippi to increase minority students, specifically Blacks, in light of continuous low minority enrollment. The goal was to recruit, retain, and graduate more Black students leading to higher minorities in the nursing workforce. The initiative originated in 1998 as an administrative mandate [18]. The strategies implemented included: 1) implementing three open forums per year with ethnic minority students and faculty to discuss issues and concerns these students might be experiencing, 2) establish collaborative partnerships to foster academic success, and 3) increase awareness in the community of requirements to succeed in a professional program [18]. Results led to increase in minority faculty, from one to nine. Ethnic minority students now represent 21% across this system's campuses, which had historically been low.

3.4 The coppin academy for pre-nursing success: A model for recruitment and retention of minority students

The Coppin Academy for Pre-Nursing Success: A Model for Recruitment and Retention of Minority Students, a year-long program, was developed and implemented in Baltimore, Maryland. Minority and disadvantaged students, 8th through 12th grades, interested in nursing were targeted. The program partnered with a historically black college and university (HBCU) and the Baltimore public school system to target students interested in nursing careers. The program helped develop the cognitive and affective domains of the students interested in nursing. Elements of the program included:

1) partnering with the university's upward bound program, 2) reality-based clinical "exposure" within the local hospitals, 3) workplace mentoring; 4) academic assistance from the university's resource center; 5) tutoring for students with learning difficulties; 6) minority stipends; 7) academic, career, and financial aid counseling; and 8) advanced placement for qualified high school students. Results showed students who graduated from CAPS program exceeded the retention rate of students at the university. The program has been funded for two cycles. The first cohort in CAPS passed the NCLEX-RN on the first sitting.

3.5 Affirming At-Risk minorities for success (ARMS)

Sutherland, et al. [19] program was targeted toward diverse ethnic and racial populations [19]. Program purposes were to 1) identify at-risk minority students prior to entrance into nursing; 2) increase the number of minority and disadvantaged students in the program; 3) develop and expand partnerships with secondary schools to increase minority recruitment; 4) develop a recruitment plan; 5) increase graduation and NCLEX pass rates for minority students; and 6) develop a comprehensive retention plan [19]. The research design was evaluative. Ethnic minority students (Hispanic, Asian Pacific, and Blacks), first generation college students, students from rural communities, and students with a C in or failing a nursing course were invited to participate in the study [19]. This was compared to a group of non-Affirming At-Risk Minorities for Success ARMS students derived from a comprehensive database maintained by the college of nursing [19]. The overall results of the analysis were that the ARMS program equalized the significant negative effects of ethnicity and race on the NCLEX-RN pass rate. It was noted that ARMS students performed better than non-ARMS students in their capstone nursing course. Overall, the ARMS program improved the NCLEX-RN pass rate of ethnic minority students in the program. The program funding was obtained from the U.S. Department of Health and Human Services Basic Education and Practice Program grant for three years.

3.6 Recruitment and Retention of Minority Students: Diversity in Nursing Education

The goals of the project produced by Etowa et al. [8] were to increase diversity, foster student learning, and ultimately improve health care for the African Nova Scotian in Canada community. This project had two phases: first a pilot project and then a multiphase project. A needs assessment was done in the community and revealed Blacks were not choosing nursing as a career option. Next a pilot project was forged with the university, the public school system, and the Black community to guide students that expressed an interest in nursing to courses they should take prior to entrance into high school. From the pilot results a multiphase project was formed. First an initiative to make nursing more visible in the Black community was started. Then a Black liaison was selected to serve in in an advisory capacity between the community—and later at the university level—to help deal with concerns of racism and other barriers that were identified by Blacks who entered nursing school. Next, polices were implemented to ensure equity, such as academic advising as needed for the Black students. Also, five spots were reserved in the program for Black students. Finally, collaborative partnerships, both within and outside the broader university community, were established [8]. These efforts required the cooperation of all, and at times were challenging, because it required an institutional attitude change. The results have been 100% increase in Black student enrollment and a significant increase in admission applications from the Black community [8]. Additionally the creation of two tenured-track positions for Black and Aboriginal nursing scholars has the potential to increase minority faculty visibility [8].

3.7 Summary of major themes

Themes reflect results that emerged from the analysis of the models and include: academic and peer support before admission and during nursing school, community partnerships, mentoring, visible minority faculty, and social and financial support. Further elaboration on themes is provided below.

Five articles discussed use of academic and peer supports which were strategies that helped students effectively navigate nursing education. This support included feedback on tests, timely feedback on clinical performance, peer mentors, study

groups, and faculty meeting times for follow-up. Community partnerships were cited by six articles as necessary for minority success. Relationships with community partners were established to give students community support and experienced advisors. In addition, relationships were similarly developed with high schools and middle schools to facilitate admission into nursing school. Five articles referenced mentorship which was additional time, outside regular work hours, to work with minority students. These mentors could be faculty and other support staff that look like the student's minority group or those who wanted to guide minority students. Described by three articles were financial and social supports that aided minority students. This included monetary funding, equipment, student activities outside of class events, and opportunities to socialize with peers.

4 Discussion

This review was conducted to determine if models implemented for minority recruitment, retention, and graduation in various schools of nursing were successful. The strength of this review included that all the articles studied were from peer-reviewed journals and that a researcher developed tool was used to determine inclusion criteria. Therefore all articles were put through a comprehensive, systematic review as described in Table 2 to make sure the articles were appropriate for this study [12]. According to the articles reviewed minority retention was increased, and so were graduation rates. An area of future research is to identify which model was most effective in increasing minority recruitment, retention, graduation. In addition, all nursing schools models where the NCLEX pass rates were reported, minority students were successful in passing their board exams [6, 9, 20]. It was also reported that minorities in the CAPS program had retention and graduation numbers above the university's [20].

Especially noted in all studies was faculty support, again highlighting the importance of dedicated nursing faculty. Also implied from each nursing school that decided to implement a model was a commitment of student financial resources, financial support for the program, faculty and administration time, and dedication to the completion of the project, because it could take several years before full results were realized [16, 18, 20]. Endurance during the model implementation was important because once models were implemented; results may not be evident immediately. The findings provide important information about retention models for a complete picture from start to finish, as well as all dimensions of implementation. Further, different nursing schools tailored models to fit the needs of the minority student population they were targeting [8, 18, 20].

Diversifying the nursing workforce in an effort to decrease health care disparities continues to be important. Nursing education must continue to develop and implement programs that address minority student recruitment, retention, and graduation. Publishing the minority retention models that were successfully used in nursing education is an essential part of disseminating knowledge to the profession. The implications for nursing education are that structured programs provide support to minority students. Further research is needed on more programs that provide support for minority retention programs and their success rates. The success of minority students in nursing will assist in diversifying the nursing workforce and impact health care outcomes in the future.

5 Conclusion

Increasing minority nursing student recruitment, retention and graduation from nursing program in an effort to increase a diversified workforce is important. This result can lead to reduced health care disparities in underserved populations. The articles reviewed demonstrated considerable success in minority recruitment, retention, graduation and success on NCLEX. All of the articles included in this review reported that once minority students were given the supports identified by their respective schools, prior to entrance and during nursing school, retention and graduation increased.

Acknowledgements

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