Abstract: Careers Beyond the Bedside (CaBB) aimed to increase diversity in the BSN program and encourage the pursuit of graduate education. The program included recruitment activities, academic and professional support for nursing students, and activities to stimulate interest in graduate school. CaBB targeted disadvantaged and underrepresented ethnic minority (UREM) students. Seminars, the cornerstone of CaBB, provided career information and a structured support group. Modest scholarships provided financial assistance. Twenty-nine of 35 scholarship students graduated by the end of the three-year grant and three were enrolled in graduate programs, demonstrating the effectiveness of CaBB to recruit and graduate UREM and disadvantaged students.

Key Words: Diversity, Nursing Workforce Diversity, Disadvantaged, Recruitment, Retention, Nursing Education
BACKGROUND

The University of North Carolina at Chapel Hill (UNC-CH) is a research-intensive university and supports baccalaureate, masters, and doctoral programs in nursing. The School of Nursing (SON) is part of the Health Affairs campus and requires a separate application during the sophomore year for entry into the BSN program. North Carolina’s demographics include approximately 24% African-American, 4% American Indian, and 11% Hispanic residents. In the year prior to our CaBB Program’s inception (2011-2012), the SON clearly did not match the demographics of the state with only 19.4% UREM students: African American (6.8%), American Indians (0.6%), Hispanics (5%) and Multiethnic (6.8%) designations. To put our efforts in context, the university also made efforts to increase recruitment and support of UREMs and disadvantaged students. They launched the Carolina Covenant in 2004 to address the educational and financial needs of students from low-income families. In fall 2010, the program admitted 558 scholars, 57% of who were UREM students.

The available data supported the need to increase the diversity at the UNC-CH SON, in the nursing workforce and in the state. The CaBB program was developed with the goal of achieving this aim. In the next section, we describe the CaBB program’s structure and process evaluation, as shown in the Logic Model (Figure 2).

PROGRAM COMPONENTS AND EVALUATION

Recruitment into CaBB Program

The resources needed for recruitment depend on the ability to leverage existing campus organizations and entities. We were fortunate that CaBB’s goals were congruent with a number of University-wide initiatives at UNC-CH that provided major assistance in undergraduate recruitment. These organizations included the previously mentioned Carolina Covenant; the federally funded TRiO program, which includes the nationally known McNair Scholars Program, that provides resources and funding for disadvantaged UREM students to advance through the academic pipeline; and the Carolina Firsts Program that supports first generation college students. The Minority Student Recruitment Committee (MRSC), a pipeline program comprised of current UNC students and staff, was an excellent resource for recruitment because the committee helps to cultivate a culture of inclusion, leadership, diversity, understanding, and success for UREM students University-wide. The committee targets students who are pre-college to graduate level. Furthermore, the University campus has several student organizations, including the Black Student Movement, the Carolina Indian Circle, the Carolina Hispanic Association (CHispA), UNC-CH Chapter of the NAACP, and the Muslim Student Association, with whom we formed relationships.

The Project Director and CaBB team met several times a year with the leadership of these groups. Alliances were built to help identify strategies to engage and recruit students to explore nursing as a career through participation in CaBB Program activities and to collaborate with these organizations’ outreach activities. CaBB also worked collaboratively with the SON’s Offices of Student Services and Multicultural Affairs. CaBB’s activities resulted in a substantive addition to the SON’s strategic plan to recruit and retain disadvantaged/UREM students.
Members of these offices served as part of the CaBB team and contributed to the project in various ways, including the review of process evaluations and recruitment strategies. This article focuses on describing CaBB’s strategies to recruit and retain disadvantaged or UREM students to nursing school.

**Program Supports for Pre-Nursing Students**

**Needs Assessment.** During Year 1 of the grant, an online survey was emailed to students (n=63) who had participated in any of the first four CaBB activities. A major goal of the survey was to explore these students’ academic challenges and assess their use of university resources. The response rate was 41% comprising 5 freshmen, 17 sophomores and 4 "others".

When asked what the most difficult undergraduate courses were, most students listed the sciences. The responding sophomores listed Chemistry (n=8) as the most difficult, with Biochemistry (n=4) being the second most often listed. A question allowing multiple responses asked students to choose what would have been helpful in overcoming the challenges/difficulties with these courses. Most of these 17 students chose “having more study time” (n=13). Additional responses included “having better study skills in general” (n=11), “being able to study in a group rather than alone” (n=8), and “having more access to a TA or tutor who could spend individual time” (n=8). A follow-up question asked them to clarify reasons for lack of study time; the most frequent response was that they had too many demands on their time to meet the requirements imposed by a full time course load.

It is important to note that UNC-CH has a number of resources to assist undergraduates in achieving academic success. These include a Writing Center, a Center for Student Success and Academic Counseling, and a Learning Center. Many undergraduate classes have teaching assistants (TAs). Ninety percent of the students (n=18) used TAs when available; 50% (n=10) used The Writing Center; 15% (n=3) used The Learning Center, and 25% (n=5) indicated “Other” (3 wrote in tutoring with two students having paid for tutoring; two went to the peer tutoring offered; one went to the course’s group supplemental instruction seminars; one talked to the course professor).
We used the findings from this assessment to enhance the resources offered by the CaBB Program to improve the success of participating students. For example, the CaBB Program started an initiative to encourage the use of available resources on campus. In addition, the program created an incentive for students to track and submit reports of their use of resources. The information about time demands motivated the creation of work-study mentoring and the scholarship program, described later in this article, to address this challenge.

**Academic Advising.** To enhance the supportive services available for students, the CaBB program collaborated with the pre-existing SON advising system. One of the SON Academic Advisors was a designated member of the CaBB project team and attended all CaBB activities. This Academic Advisor meets one-on-one with pre-nursing students across the university. As a registered nurse and faculty member in the SON, the Academic Advisor provides information about the curriculum and course requirements. In addition, she addresses other important topics, such as career options in nursing, optimal ways to navigate the course requirements, and suggestions on how to strengthen their application to the SON. During year 1, she met one-on-one with 65% of the CaBB pre-nursing students (n=51).

**Joint Supports for Pre-BSN and BSN Nursing Student**

**CaBB Program Seminars.** The cornerstone component of the CaBB program was monthly seminars designed to provide information about careers in nursing and to form a structured support group with peers and faculty. The CaBB faculty mentors served as role models for students, sharing their journey, their passion, and their perspectives about various opportunities available in the nursing profession. The mentors included faculty who were diverse in age, ethnicity, gender, educational backgrounds, and nursing specialties. In addition, the CaBB project manager and evaluator attended all seminars. In Project Year (PY) 1, the number of students who registered for and attended the seminars ranged from 11-45 with a mean of 22.5.
Table 2. CaBB Seminar Evaluations

Average percentage across survey items of respondents who rated the items positively: “Agree” or “Strongly Agree” on a 5-point Likert scale from “Strongly Agree” to “Strongly Disagree”

<table>
<thead>
<tr>
<th>Seminar Topics</th>
<th># Attended</th>
<th># Completed Evaluations</th>
<th>Average percentage: “Agree” or “Strongly Agree”</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-2013 Seminars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stand Up and Lead for a Healthier Tomorrow</td>
<td>17</td>
<td>15</td>
<td>100%</td>
</tr>
<tr>
<td>Improving the Health of Individuals, Families, and Communities through Nursing Science</td>
<td>18</td>
<td>17</td>
<td>100%</td>
</tr>
<tr>
<td>Essay Writing Workshop: Putting Your Best Foot Forward on Admission Applications</td>
<td>47</td>
<td>31</td>
<td>99.2%</td>
</tr>
<tr>
<td>Bridging the Gender Divide in Nursing</td>
<td>24</td>
<td>24</td>
<td>96.7%</td>
</tr>
<tr>
<td>That Stereotype Hurts! Ouch!</td>
<td>17</td>
<td>14</td>
<td>100%</td>
</tr>
<tr>
<td>Resume Writing &amp; Advancing Your Career</td>
<td>13</td>
<td>9</td>
<td>100%</td>
</tr>
<tr>
<td>Research &amp; Honors: Opportunities in Nursing</td>
<td>19</td>
<td>19</td>
<td>96.8%</td>
</tr>
<tr>
<td>All 2012-2013 Sessions</td>
<td>155</td>
<td>129</td>
<td>98.7%</td>
</tr>
<tr>
<td>2012-2013 Seminars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing in the 21st Century: Educational Opportunities &amp; Career Pathways</td>
<td>31</td>
<td>29</td>
<td>98.9%</td>
</tr>
<tr>
<td>The Life and Times of a UNC Chapel Hill Nursing Student: Almost everything you’d like to know about the experience of being in the SON</td>
<td>33</td>
<td>18</td>
<td>100%</td>
</tr>
<tr>
<td>Student Opportunities in Nursing Research: Advancing Science, Improving Lives</td>
<td>30</td>
<td>24</td>
<td>100%</td>
</tr>
<tr>
<td>Tips for Writing a Stellar Essay for Nursing School Admission</td>
<td>58</td>
<td>41</td>
<td>100%</td>
</tr>
<tr>
<td>MSN, PhD, DNP: Understanding Graduate Program Difference in Nursing</td>
<td>38</td>
<td>30</td>
<td>96.7%</td>
</tr>
<tr>
<td>Ouch! That Stereotype Hurts!</td>
<td>26</td>
<td>22</td>
<td>100%</td>
</tr>
<tr>
<td>Bridging the Gender Divide in Nursing</td>
<td>28</td>
<td>25</td>
<td>96.0%</td>
</tr>
<tr>
<td>All 2013-2014 Sessions</td>
<td>244</td>
<td>189</td>
<td>98.6%</td>
</tr>
</tbody>
</table>

1 2012-2013 Questions:
The presenters clearly displayed expertise on their topics
The presentation clarified . . . Statement of objective
The presentation provided interesting examples, tips, etc.
The presentation increased my interest in pursuing a career in nursing (sessions 1 and 2)
The presentation was engaging and thought-provoking (sessions 4-8)
Overall, this was a high quality program

2013-2014 Questions:
The presenters clearly displayed expertise on topics
The presentation was informative, engaging and thought provoking
Overall, this was a high quality program

In PY 2, the number of attendees was higher, with a range of 25-58 students per seminar and a mean of 34.9. These numbers are underestimates because registration and signing-in were voluntary. The workshop on essay writing for admission applications had the most attendees both years. Table 1 shows the demographics of participants in both years.

The seminars were informative and interactive to promote discussion. Seminars were designed to (1) debunk myths about careers in nursing, (2) share the faculty’s passion for nursing, (3) present the diverse roles and career paths for nurses, (4) explore issues of diversity, (5) support students’ success in the application process and (6) create a safe community and opportunities for mentoring. Table 2 shows the seminar topics and evaluation results for PY 1 and PY 2. Seminars were modified in PY 2 to facilitate continued attendance and engagement of students who had attended the seminars the previous year (n=26).

Each year students were asked to complete a demographic questionnaire the first time they attended a seminar and to sign in at each seminar. Students were also asked to complete an evaluation at each seminar. This allowed the program to track participation and evaluate and modify each seminar.
based on the feedback. The protocol for this process was submitted to the UNC IRB for review and was determined to be exempt. The evaluation component included standardized statements that asked students to rate their degree of agreement using a 5-point Likert scale from 1=strongly disagree to 5=strongly agree. Students were also invited to comment on the strengths and improvements needed and suggest topics for future seminars.

The seminar evaluations were overwhelmingly positive in both years. A thematic text analysis was used to analyze the students’ comments on the strengths and improvements needed. After reading through all the responses, categories were created from the themes that emerged. Identification of the themes were done independently by one of the authors and two work-study students, and then discussed to eliminate bias. Then each comment was coded. In 2012-2013, there was a total of 94 comments for all the seminars, with an average of 13.4 (range 9-25). In 2013-2014, there was total of 140 comments, with an average of 20.0 (range 12-34). Besides the common general statements that were reflected in the ratings, like “[very] interesting”, “[very] informative”, “learned a lot”, the following identified themes supported the goals of creating a safe, supportive community for the students and empowering them with information to support their decision to become a nurse and succeed in the process: (1) comments about the atmosphere: welcoming, approachable faculty, informal setting, dialogue/interactive quality; inspiring; (2) hearing personal stories; (3) clarification of the profession and the types of roles for nurses; and (4) discussions were thought-provoking. Both years, the seminar on “Tips for Writing a Stellar Essay for Nursing School Applications” had the most comments. Besides commenting that the program was helpful and informative, many students (7 in PY1 and 14 in PY 2) commented that hearing from current nursing students about their personal stories and the process was very helpful.

Mentoring

Group Mentoring. The seminars described above, designed to recruit and mentor UREM and disadvantaged students, provided support for pre-nursing students and nursing students in a very informal setting. These seminars served as an avenue for faculty to demystify stereotypes about nursing while at the same time informing students about the diverse roles and career paths for nurses. The group mentoring seminars allowed students opportunities to meet nursing faculty in an informal setting, creating a safe community and opportunities for mentoring (Kneipp et al., 2014).

Peer Mentoring. The CaBB program also offered peer mentoring through the Association of Nursing Students (ANS), which also encouraged participation in the professional association. Having contact with faculty and students outside of class has been identified as a significant factor for retention (Benda, 1991) and that students with a higher perception of support are less likely to withdraw from their nursing program (Shelton, 2003; Jeffreys, 2012).

Work-Study Mentoring. The CaBB mentors creatively developed a strategy to provide one-on-one mentoring for pre-nursing and nursing students. The mentors hired CaBB students for work-study positions to expose students to nursing research. This allowed students to have one-on-one mentoring as well as opportunities to become a member of a research team. This initiative was in alignment with the goal of encouraging UREM/disadvantaged students to pursue nursing research and graduate studies. By PY 3, eight students were involved in research activities such as co-coordinating research projects, performing literature reviews, creating biobehavioral data acquisition protocols, participating in data collection, and co-authoring poster presentations and manuscripts. Because of this experience, one UREM student participated in the Honors program and had been admitted to a graduate program in nursing.

Scholarships

One of the objectives of the CaBB program was to provide financial support to help students achieve successful academic outcomes. Thus, CaBB provided need-based scholarships for disadvantaged students participating in the CaBB program. Criteria and applications for CaBB scholarships were developed and disseminated at CaBB seminars and posted on the CaBB Sakai site. Two faculty members and the Project Manager reviewed applications for eligibility and rated the quality of the essays to determine awardees.

Ten CaBB scholarships were awarded, five pre-nursing and five nursing students, in 2012-2013. In 2013-2014, there were 23 awardees, five pre-nursing and 18 nursing students. Seven students received scholarships both years. All 18 nursing students who received scholarships graduated. Seven of the 10 pre-nursing students were admitted. All students (n=26) were disadvantaged; 11 were Black, six were Hispanic/Latino, two were multiracial (Native American and Caucasian), two were Asian, and five were Caucasian. Among this group, eight were men.

A survey was sent to the PY 1 cohort to determine how the CaBB Program and scholarship awards assisted them in meeting their goals. Regarding the scholarship awards, most commented that it helped them reduce the number of hours they had to work or reduced stress on either them or their parents. For example, students shared that the award “allowed more time to study and get better grades”; “I was then able to volunteer as well as work on an honors project”; and “It allowed me to take the necessary classes during the summer.”

Supports for Students After Entry into the Nursing Program

Tutoring. After the first CaBB cohort was admitted into the Nursing program, the Project Director worked with the course coordinators of Pathophysiology and Pharmacology, the most challenging first-year nursing courses, to offer tutoring. The tutors offered both face-to-face group tutoring sessions and online tutoring using the Sakai Course Management System. Tutoring sessions for Pathophysiology were well attended with 39
and 30 individual students attending multiple tutoring sessions in spring and summer of 2013, respectively. Only 18 students signed-in for tutoring in Pharmacology in fall 2013 and 21 students in spring 2014. Only 21 students completed the online evaluation of the tutoring sessions. Ninety percent of those students rated the tutoring Very Helpful or Helpful on a 4-point Likert scale from Very Helpful to Not at All Helpful. Students commented that they liked reviewing practice questions; it helped them to focus on key topics; and the tutor was able to explain the rationale behind the answers and breakdown complex concepts into manageable pieces.

RESULTS AND DISCUSSION

The success of the CaBB program was reflected in the attendance of over 100 students at the group mentoring seminars each of the three years of the grant, the percent of CaBB students who applied and were admitted to the SON, and the successful graduation of the nursing students who received scholarships. In addition, of the seven CaBB scholarship graduates who responded to a follow-up survey in spring 2016, three were already in graduate programs and the other four were planning to apply to graduate school in the next 2-3 years.

In 2012-2013, 102 UREM students applied to the SON and 17 students (16.7%) were admitted. That same year, 25 students involved with CaBB pre-entry activities applied and 18 (72%) were admitted. Eight of those admitted were UREM students: five were Black, one was Hispanic, one was Native American, and one was Asian. The percent of UREM students participating in CaBB that applied and were admitted was 87.5%. One of these students was admitted to the Hillman Scholars Program in Nursing Innovation, which puts students on a path that culminates in PhD degree in nursing. In 2013-2014, 19 of the CaBB participants applied and 15 (79%) were admitted to the BSN program. Of the 15 admitted, eight were UREM students: five were Black, one was Hispanic, and two were multi-racial. The percent of UREM students participating in CaBB that applied and were admitted was 80%.

In 2014-2015, 38 CaBB participants applied for admission to the SON and 27 (71.1%) were admitted. Of the 27 admitted, five were UREM students: two were Black, one was Hispanic, and two were multi-racial: Hispanic/White and Black/White. The percent of UREM students participating in CaBB that applied and were admitted was 55.6%. During the three years of the grant, 54 scholarships were awarded to 35 students. By the end of the grant, 29 of the 35 scholarship students had graduated and two pre-nursing students had been admitted to the class starting May 2016.

These results demonstrate support of Jeffreys’s (2012, 2015) Nursing Undergraduate Retention and Success (NURS) model that presents a framework for examining the variables that affect undergraduate and graduate student retention and success. Jeffreys (2015) suggests that the aim should be more than achieving minimum standards (i.e. graduation; pass rate on licensing exam) but should include "achieving personal satisfaction and reaching beyond the benchmarks to achieve one’s potential and then strive for more." (p. 425). According to the model, retention decisions, persistence, and optimal outcomes are based on the interaction of the following factors: (1) student profile characteristics (e.g., age, race/ethnicity, and language); (2) student affective factors (e.g., cultural values and beliefs, self-efficacy, and motivation); (3) academic factors (e.g., study skills and time spent studying); (4) environmental factors (e.g., finances, hours of employment, family responsibilities, transportation, and outside encouragement); and (5) professional integration factors (e.g., support of faculty and classmates, professional memberships). Jeffreys (2012) concluded that attention to these factors resulted in positive academic and psychological outcomes.

The CaBB program included intentional strategies that addressed Jeffreys’s factors (see Figure 1). Academic factors were addressed through strategies such as career advising, tutoring and encouraging the use of campus resources (e.g., the Learning Center and Writing Center). Scholarship awards addressed the environmental factor of financial constraints. Affective factors were addressed through group and individual mentoring. Professional integration included research mentoring and attending or presenting at professional meetings.

The group mentoring seminars also provided the core support for the professional integration factor. The seminars were the structured thread throughout the program. It became the ingredient that kept students engaged and the students who attended bonded with each other and with the faculty, forming a "community" of support and encouragement. The results reflected in the analysis of the comments on the students’ seminar evaluations support the significance of the professional integration factors of the NURS model for the recruitment and retention of UREM and disadvantaged pre-nursing, nursing, and graduate students. As Jeffreys states (2015), “Professional integration factors are factors that enhance students’ interaction with the social system of the college environment within the context of professional socialization and career development... It is also proposed that professional integration factors have the greatest power of optimizing outcomes aimed at discovering and achieving one’s potential.” (p. 429)

The supportive and committed CaBB faculty and staff created a welcoming community to learn about the various roles of nurses and different career paths, to celebrate diversity, and to create a safe environment to share and ask questions. The students’ comments demonstrated that CaBB activities and the relationships formed helped to affirm and validate students’ interests in becoming a nurse, as well as supporting their persistence to succeed. The following statements of CaBB participants emphasize the impact of the Program: “The CaBB program inspired me to take an interest in nursing research and helped me to realize everything that nurses can offer to the healthcare field”; “It made me feel a lot better about my decision to go into nursing”; “It really helped me to be persistent in my effort to apply to the nursing school and most of all, the activities and contact...
with the staff really made me hopeful about not only applying to nursing school but doing well in the nursing program."

The findings presented in this report support the continued investment in programming to promote the success of UREM and disadvantaged students who endeavor to successfully pursue a career in nursing. A theory-based approach, such as Jeffreys’s model, can lead to achieving meaningful increases in recruiting and retaining UREM and disadvantaged students. The program components of CaBB can be easily replicated in other university settings. Careful attention to strategies that target the reported needs and challenges experienced by UREM and disadvantaged students, as well as partnerships with existing initiatives on campus designed to promote diversity, are important components of a successful program. The development and sustainability of future initiatives that implement and expand upon the strategies outlined by the CaBB program are critical to enhancing diversity in the nursing profession.

REFERENCES

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