A Partnership Between Nursing Faculty, Students, and Urban Community Centers to Provide Vision Screenings for Low-income Immigrant Women: An Experiential Case Study

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Abstract: Given the current health care climate, it is critical for nurse educators to provide learning opportunities for students to collaborate with leaders in the community to provide much-needed services to vulnerable populations. We developed, implemented, and evaluated a process for vision screenings and referrals to a local eye center for low-income, immigrant women over three years in an urban setting in the United States. This is a report on the program, including the challenges faced by the faculty and lessons learned by the nursing students.

Keywords: Access to healthcare, community-based nursing, nursing education, public health nursing education, screening, vision.

Background
Vision loss can negatively impact a person’s ability to work, drive, and learn (Pottie et al., 2011). The American Academy of Ophthalmology recommends a complete eye exam by a physician once during the second decade of life, twice during the third decade of life, and more frequent exams if one wears contact lens, has a family history of diabetes, eye infection or injury (“Eye Exams 101 - American Academy of Ophthalmology,” 2012). Access to vision screening in developing countries is usually limited (Pottie et al., 2011). Vision impairment is much higher in developing countries because of poverty and lack of access to quality, affordable health services (Jaggernath et al., 2014). Moreover, undocumented immigrants from developing countries that enter the United States have limited health care options (“Undocumented Immigrants Face Limited Health Care Options | Huffington Post,” 2014, January 28) and are a vulnerable population placing them at greater risk for poor health and lack of access to health care (Fitzgerald, Myers & Clark, 2016). Certain eye diseases and common impairments can be detected during vision screenings. Therefore, recent immigrants to the United States should receive vision screenings as part of their evidence-based care.

Practice Problem
Mercy Learning Center (MLC) and Caroline House are two non-profit centers in urban Bridgeport, Connecticut designed to meet the unique needs of women in this community. There are over 1,000 low-income immigrant women enrolled in basic literacy and life skills training programs in these centers. Some aspire to prepare for the United States citizenship exam and earn a high school equivalency diploma. Many of the women are empowered to
build a better life for themselves and their families. Educators at these centers have found that some clients struggle with the coursework because of vision problems. Thus, a partnership was formed between community leaders, nursing faculty, and students in leadership roles within the Connecticut Student Nurses Association (CSNA) to provide a much-needed vision screening service to this vulnerable population.

**Development of the Academic-Practice Partnership**

An academic-practice partnership allows for mutual goal setting, sharing of knowledge, and meeting of needs of both partners (Flores, Hickenlooper, & Saxton, 2013). The partnership described in this section was an informal academic-practice partnership that began in 2014.

The partnership began with a nursing faculty member who served on the MLC Board of Directors. The faculty board member facilitated a meeting between the undergraduate health assessment faculty and MLC administrators, where the administrators expressed the need for vision screenings based on classroom observations and the group decided to pilot a vision-screening project. The undergraduate health assessment faculty agreed to coordinate and oversee the screenings with the nursing students and MLC staff.

The lead nursing faculty member, who was also an advisor to CSNA, was aware that the CSNA president was interested in community service projects that improved women’s health and that she was receptive to helping with recruitment of students for participation in these activities. CSNA’s membership includes nursing students from all over Connecticut, and part of their mission is to engage its members in networking and community service. The CSNA president assisted with recruitment by reaching out to members in the organization, which resulted in participation of students from two local baccalaureate-nursing programs.

The academic-practice partnership was expanded in 2015 to include Caroline House. This occurred when a staff member of Caroline House saw a news clip featuring the vision screening at MLC and made a request to CSNA for nursing students to conduct a vision screening at their site.

**Project Purpose**

The purpose of this project was for nursing students to develop partnerships with community agencies to provide vision screenings to a vulnerable population in the Bridgeport area. A secondary project aim was for students to learn how to disseminate the results at a regional or national conference and in a publication.

**Methods**

**Participants.** All women who attended the MLC or Caroline House basic literacy and life skill training programs had access to the vision screenings; however, the total number of
women who were notified about the screening dates and times over the three years is unknown. Women who attended MLC in September 2014, 2015, or 2016 up to the annual screening days in October 2014, 2015, and 2016, as well as those women who attend the Caroline House in September 2015 up to the screening day in October 2015, were notified of the screening dates and times by the volunteer or outreach coordinator at each center, either verbally or via posted signs. Translators were used for the verbal advertisements. The dates and times were selected by each center in order to reach the most clients. Childcare was available for women with young infants and children. A total of 187 women from MLC and Caroline House self-selected to attend the screenings over the three years.

**Implementation.** The academic-practice partnership between the undergraduate health assessment faculty and MLC gave faculty and students access to immigrant women with self-identified health concerns that students could care for and make referrals for more specialized care as needed.

The next step in the implementation process began with the faculty seeking help from the CSNA Board of Directors to find nursing students who would be interested in leading vision screenings at MLC. Thirteen nursing students from two universities agreed to lead the screenings.

MLC had limited resources to pay for eye doctor appointments for the women found to have abnormal vision screenings. Therefore, the nursing students leading the vision screenings explained the project and MLC’s limited financial resources to the Connecticut Nurses’ Association, which connected them with the Needs Clearinghouse, a nonprofit organization that supports charities by networking donors with people in need. For this project, the donor was the Bridgeport Lions Club, which provided vouchers for the free eye exams and eyewear at a local LensCrafters®. LensCrafters® is a large optical chain that sells prescription eyewear and has independent optometrists on-site. A specific LensCrafters® for this project was selected because the optometrist was bilingual and the location was geographically close and accessible by public transportation.

Sophomore, junior, and senior nursing students from two different baccalaureate programs in Connecticut served as the vision screeners. Due to curriculum variations, the undergraduate health assessment faculty conducted just-in-time training for all student participants. Just-in-time training, also known as on-demand learning, gives learners the information they need at the time it is needed (Hartley, 2000). This training included an introduction to basic vision assessments, an overview of the evaluation criteria, and utilized a demonstration/return demonstration pedagogy. Upon completion of just-in-time training, students performed the vision screenings autonomously in pairs with a faculty member verified the results. Final decisions regarding referral were made by the faculty.
Clients at MLC and Caroline House were encouraged to speak English to support their literacy education goals. Translators and a bilingual social worker were accessible at both centers during the screenings.

The dates and times for the vision screenings were identified by MLC based on the hours of operation, program client availability, and available space. Because MLC’s basic literacy and life-skill training program begins every September, the volunteer coordinator recommended annual October screenings to allow the clients to self-identify vision deficits after several weeks of instruction. Lunch breaks were identified as an ideal time of day to capture the most clients for the screenings. A sign-up sheet was generated and verified by the volunteer coordinator to ensure the clients self-identified or faculty-recognized as impaired. These same processes were used at Caroline House for the single screening held in October 2015.

The criteria for referral to the optometrist were developed in collaboration with advanced practice nursing faculty and followed the American Academy of Ophthalmology’s guidelines (“Vision Screening: Program Models,” 2015). Women found to have one or both eyes with deficits of greater than or equal to 20/50, a vision discrepancy of 2 lines or more on the Snellen eye chart (Peters, 1961), Rosenbaum chart (Horton, 1997), or any one abnormality such as cataracts or astigmatism, were reported to the social worker at MLC or Caroline House. The social worker explained the referral process to the client, arranged for an appointment, and discussed transportation options. Nursing faculty completed paper referrals, which included assessment results and faculty contact information if the optometrist needed more information.

The directors at MLC and Caroline House tracked the project data of women screened, women referred for eye exams, and women seen by the optometrist. After each screening, a debriefing session was conducted to allow nursing students time to share their reflections with faculty and other students who participated in the screenings. Debriefing is an effective strategy for formative feedback in experiential learning (Cant & Cooper, 2011). Lessons learned by the nursing students were obtained from these debriefings.

**Evaluation.** Frequencies were used to describe the number of women screened, women referred for eye exam, and women seen by the optometrist for the annual screenings at MLC and the single screening at Caroline House.

**Results.** Between 2014 and 2016, one Fairfield University and 12 Sacred Heart University nursing students in their sophomore, junior or senior years, along with health assessment faculty from Sacred Heart University held vision screenings annually at MLC and a single vision screening at the Caroline House. One hundred eighty-seven women were screened over the three years of which 25% (n=47) were referred to an optometrist, and of these women, 21% (n=40) were seen by an optometrist. Table 1 displays the number of women screened, referred, and seen by optometrist per site per year.
Table 1
Women Screened, Referred, and Seen by Eye Care Provider by Site and Year

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<tbody>
<tr>
<td>Women Screened</td>
<td>77</td>
<td>64</td>
<td>33</td>
<td>13</td>
<td>187</td>
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<tr>
<td>Women Referred</td>
<td>13</td>
<td>16</td>
<td>11</td>
<td>7</td>
<td>47</td>
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<tr>
<td>Women Seen by Optometrist</td>
<td>10</td>
<td>12</td>
<td>11</td>
<td>7</td>
<td>40</td>
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Discussion
Nearly 200 immigrant women received vision screenings over the three years. A total of 47 women were referred to an optometrist with 40 of these women complying with the recommendation for a comprehensive exam. Nursing students who participated in this project were able to see their impact on health care access when a service is delivered in the communities where immigrant populations reside. The project design was in alignment with recommendations from a systematic review that prenatal care for immigrants take place in convenient locations to improve access and address the needs that are important to this population (Higginbottom et al., 2015).

Although not the primary purpose of this project, students learned how to disseminate practice-based evidence in traditional forms. Evaluation criteria for dissemination were met by the students submitting an abstract for presentation to a national nursing conference and a manuscript to a journal. Nurses have a professional and ethical responsibility to share and disseminate practice-based evidence (Milner, 2016) thus, this project provided a foundation for future dissemination.

Lessons Learned by Nursing Students
The undergraduate nursing students learned several valuable lessons during this project. Initially, the students held fundraisers to pay for the eye exams and glasses. These fundraisers did not raise the funds necessary to sponsor all the women in need. This prompted the CSNA
officers to network with the Connecticut Nurses’ Association who was able to connect the
students with the Needs Clearing House. The students learned about the power of
networking and the importance of having reliable and sustainable funding sources.

Another lesson learned involved the time and effort required to communicate with
non-English speaking patients. Many of the women who came for the vision screenings had
limited English proficiency. Some were illiterate in their native language. Because the
women at MLC and Caroline House represent more than 50 countries of origin, translators
were not always available. Therefore, frequent repetition, simple explanations, and use of
nonverbal communication skills such as hand gestures, pointing, and pictures were key.
Some women vocalized eye chart results alternating between languages. Screeners familiar
with the Spanish and/or French alphabets were able to validate results quicker than those
who did not. As a result, the time required to screen each woman varied considerably.

Another lesson learned was the importance of advocating for vulnerable populations
in the community. A large emphasis is placed on transitions in care in the United States
health system. Awareness of the needs of the greater community of the health system where
a nurse is employed is paramount for improving quality care and patient outcomes.
Moreover, improved access to quality care for the achievement of health equity is a Healthy
People 2020 goal (“Access to Health Services | Healthy People 2020”) that nursing students
can help to advance.

Students were initially satisfied with completing the screenings and giving the
women a referral to LensCrafter®. Under faculty guidance, students were encouraged to
expand their thinking about the project evaluation. The idea for tracking how many women
had seen an optometrist at LensCrafter® came from a faculty-led brainstorming session.

**Challenges Faced by Nursing Faculty**

Time and resources were the biggest challenges for faculty. Vision screening scheduling had
to comply with the preset time blocks at MLC and Caroline House. Times and days were
not always conducive to nursing students and faculty schedules, which limited the number
of volunteers available to conduct the screenings. Since most of the women screened had
limited English proficiency, the lunch hour was often too small of a window of time to
complete the screenings for the number of women preregistered. The varied length of time
needed for screenings proved to be a challenge. MLC did not want any of the clients missing
instructional time, so some screenings occurred on an additional day.

Unfortunately, only one faculty member who was the advisor for CSNA and
instructor for health assessment agreed to be the point person for the entire experience.
Having more than one faculty member participating in the screenings would have reduced
the time required to verify screening results.
Faculty had to cull additional resources for women who did not meet the criteria for referral to LensCrafter® but had signs of mild myopia that could be corrected with over the counter non-prescription reading glasses. A faculty member with the assistance of students, collected eyewear donations from a local church. These women selected their own reading glasses and then immediately screened to ensure that the magnification strength was appropriate.

Conclusions
Sophomore-, junior-, and senior-level nursing students were able to work together to identify and successfully address a healthcare need in the community. Students learned valuable lessons on the benefit of networking, the needs of charitable organizations, and the opportunities that can arise from donor contributions. Students also learned the value and impact of providing care in the community to immigrant women.
References