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Medical Students as Mentors of Latinx Youth: A Model for Increasing Cultural Competence and Community Engagement in Medical Schools

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Abstract

The rapid growth of the U.S. Latinx population has led to an increased need for community organizations and academic institutions to develop partnerships focused on addressing gaps in health maintenance and education of Latinx individuals. Medical schools also have a responsibility to educate future physicians in delivering culturally sensitive care through community-oriented learning experiences. This case study approach outlines the logistics of establishing a youth mentoring program between a medical school and a Latinx community and demonstrates the benefits to the institution, medical students, and the population served. We also discuss the challenges arising from this partnership and present early program evaluation data showing consistent mentor satisfaction reported over time. This description of the program development provides a framework for creating similar initiatives in medical education to address known disparities in health and well-being of Latinx individuals and other minority populations.

Keywords: Latinx, mentoring program, community partnership, medical education, mentor, service-learning

Background

Integration of Community Service in Medical Education

The ethnic composition of the United States is rapidly changing, and this trend is best demonstrated by the increasing diversity of our nation's youth (Polk et al., 2013). Population projections predict that by 2050, nearly one third of U.S. children will be of Latin American origin or ancestry (Passel & Cohn, 2008). Significant disparities exist within the scope of health and well-being of Latinx (Latino/Latina) populations, including overall health and disease outcomes, acquisition of higher education, and representation of the Latinx population among physicians (Polk et al., 2013). Furthermore, training a workforce of future physicians that is equipped to address these inequities necessitates the inclusion of both curricular and extracurricular opportunities targeted toward increasing medical student knowledge and breadth of experience involving Latinx culture.

The Liaison Committee on Medical Education (LCME) recognizes the responsibility of medical schools to respond to the health needs of an increasingly diverse U.S. population through training culturally competent physicians (LCME, 2018). The LCME requires that medical school curriculum include training intended to increase student capacity to provide culturally competent care, including perception of health and illness of individuals of other cultures, recognition of disparities in care, and demonstration of professionalism in a diverse society (LCME, 2018). An additional expectation set by the LCME is that medical schools encourage, provide opportunities for, and support medical student participation in service-learning and community service activities

(LCME, 2018). Seifer and Connors (2007) described service-learning as a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities. Thus, medical schools and communities can achieve clear benefits by creating structured programs that allow students to work directly with Latinx populations through service initiatives. Given the rapidly growing population of Latinx youth, we propose that programs designed to give medical students long-term experience working with Latinx youth have the potential to benefit both medical students and Latinx youth through promoting health education, improving communication skills, and facilitating intercultural exchange.

Benefits of Mentoring to Medical Students, Medical Schools, and the Community

Interventions in early childhood have been shown to improve health outcomes among marginalized populations (Thornton et al., 2016), thus youth mentoring programs offer numerous potential benefits to mentees. Improvements in various dimensions have been reported in the literature, such as better outcomes in regard to social functioning, social support, attitudes toward studying, and fewer symptoms of depressed mood (Chan et al., 2018). A randomized controlled evaluation of 1,139 students from 71 schools involved in school-based mentoring through Big Brothers Big Sisters of America reported improvements in teacher-rated academic performance and self-reported scholastic efficacy among mentored students with close relationships with adult mentors, regardless of duration of mentor–mentee match length (Bayer et al., 2015). The aforementioned research provides significant evidence suggesting that youth mentorship has the potential to make lasting impacts on a child's life and can provide companionship, guidance, and stability during crucial years of development.

Studies have shown that mentors also benefit from a strong mentoring relationship. LaFleur and White's (2010) review of mentor–mentee relationships in nursing and case management investigated the benefits for mentors in these engagements. The authors identified several benefits for mentors found in the literature: personal satisfaction, positive impact on the mentor's professional practice (such as improvements in managing conflicting roles and responsibilities), and increased professional success (such as advancement opportunities and organizational respect). Although these reviewed mentorships were between two adult professionals, the identification of common themes highlights the transferable nature of the potential benefits that mentors can attain from mentoring.

Existing Community–Academic Mentoring Programs

Various community-based mentoring programs exist that partner nursing students with at-risk youth (Juhn et al., 1999; Moody et al., 2003). Another program creates mentoring relationships between university undergraduates and Latinx youth (Coller & Kuo, 2014). A few existing organizations offer programs supporting health-based outcomes of Latinx youth: Arlinghaus et al. (2017) documented a peer-to-peer program focused on obesity prevention, and Kelly et al. (2006) described a program related to pregnancy and sexually transmitted infection prevention. Currently, there is a lack of literature describing the development of a mentoring partnership between a medical school and a community organization with a focus on underserved Latinx youth. Here we outline the steps taken to establish a trusted partnership between a Latinx organization and a medical school that enhances communication skills between medical students and the Latinx population and increases learning in health-related topics for both Latinx youth and medical students, which may potentially be used as a model for other medical schools.

Program Development and Structure

Building Trust With the Community

The Oakland University William Beaumont–Hispanic Newcomer Outreach (OUWB–HNO) Mentoring Program was developed with the goal of creating positive mentoring relationships between medical student mentors and Latinx youth. The program was designed through close collaboration with the leaders of Catholic Charities of Southeast Michigan (CCSEM), medical school faculty advisors, and medical students in order to provide an opportunity to serve the local community that aligned with the goals and values of each respective entity.

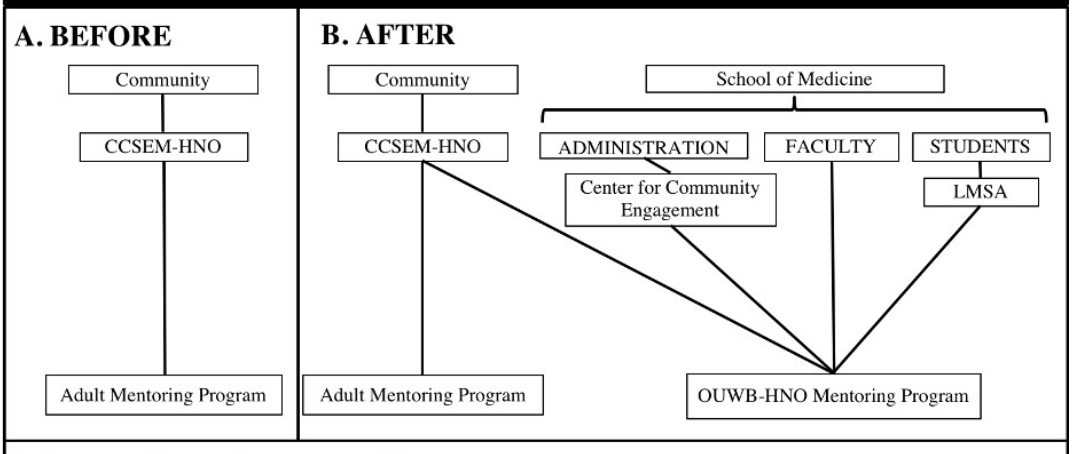
The program structure has shifted over time as interest from both medical students and Latinx families has grown. Initially, the Hispanic Outreach Program of CCSEM, an organization in Pontiac, Michigan, created a mentoring program where local Latinx adults mentored Latinx youth at the organization (Figure 1). The initial connection between OUWB and CCSEM was made through a faculty member with a shared cultural background to community organization members. A Latinx faculty member became involved with the existing mentoring program and proposed the inclusion of medical students within the mentoring program. Meetings were held between CCSEM and medical school faculty to discuss community needs, identify goals for the proposed partnership, and define roles and responsibilities of medical student mentors. This resulted in the development of educational sessions specifically targeted toward meeting community needs, which did not previously exist before the partnership with the medical school. The pilot program for the current OUWB–HNO Mentoring Program was thus created after extensive collaboration with CCSEM leadership, and a timeline for early program evaluation was established. The program then transitioned from a faculty-driven initiative toward a student, faculty, and community partner team initiative. It was soon recognized to be beneficial for the program to become affiliated with OUWB's local chapter of the Latino Medical Student Association (LMSA). The partnership created additional avenues for funding and leadership support, both from students and faculty.

Key Personnel, Roles, and Functions

Specific definitions of leadership roles, mentoring roles, and supportive roles have been established to ensure consistency within the program. Table 1 describes the central role of each leadership entity. The program's current structure partners student and faculty leadership with leadership at CCSEM. The group is partially funded by the COMPASS program (OUWB Center for Community Engagement) and partially funded by CCSEM. Each year, the faculty advisor and former student coordinators hold an informational meeting to describe the goals of the program, and first-year medical students are invited to apply as either student coordinators or mentors. Participation in the program is entirely on a volunteer basis, and human resources from OUWB include volunteer student mentors and volunteer faculty members. The coordinator role of our community partner is filled by a salaried employee of CCSEM. Up to $2,000 in yearly funding for program materials and transportation (field trips) is typically received through COMPASS, in addition to mini-grants awarded by COMPASS to provide resources for specific projects. CCSEM provides additional funding on a session-by-session basis.

Student coordinators are responsible for official mentor recruitment, program activity design, and facilitation of communication between student mentors, faculty, and CCSEM leadership. Figure 2 describes the specific logistics involved in recruitment of mentors and mentees and program delivery. Student coordinators ensure that

Figure 1. Building a Partnership Between a School of Medicine and the Community



Previous structure (A) compared to current structure (B)

Table 1. Roles and Functions of Key Personnel

Leadership			
	CCSEM coordinator	**Faculty coordinator**	**Student coordinator**
Role description	Serves as a liaison between Latinx families and OUWB–HNO Mentoring Program leadership	Develops and maintains framework for sustainable programming through collaboration with student coordinators, medical school faculty, and CCSEM coordinator	Serves as a liaison between students, faculty, and CCSEM, and collaborates in program planning and delivery
Primary task	• Recruitment of mentees • Communication of program events to parents, confirmation of mentee attendance • Codelivery of mentor training session	• Recruit and direct student coordinators • Address questions/concerns from CCSEM leadership • Program planning and event design • Budget determination • Training session for mentors	• Troubleshoot mentor–mentee concerns, supervise during group events • Develop and refine educational events • Deliver educational sessions • Coordinate faculty involvement in sessions
Secondary task	• Assist with documentation, legal paperwork (background check) • Coordinate usage of facility for program events	• Oversee program evaluation tasks and scholarly activity • Maintain collaboration and communication between LMSA and mentoring program	• Recordkeeping of weekly meetings, mentor communication, and medical student attendance • Assist in recruitment of future student coordinators • Assist faculty advisor in program evaluation
Faculty and Medical Students			
	Medical students	**Faculty members**	**LMSA**
Role description	• Develop positive mentoring relationship with mentee • Attend bimonthly program events • Weekly phone calls to mentees • Communication of concerns to student coordinators	Collaborate with student coordinators and faculty advisor to design and deliver educational sessions	• Oversee recruitment process, encourage involvement of Latinx students in mentoring program • Provide avenue for presentation of scholarly work • Allocate portions of student organization budget from COMPASS to mentoring program
Administration			
	OUWB–COMPASS		**CCSEM**
Role Description	• Monitor yearly activities and reported outcomes • Provide funding for program events		• Provide facility for program delivery • Provide funding for program activities and transportation

all appropriate administrative tasks are completed (background checks, program applications, and other paperwork) so that medical students are legally cleared to serve as mentors for local youth. CCSEM also provides a coordinator who is responsible for recruiting youth to participate in the program, obtaining participant contact information, and facilitating communication between parents, mentees, and student mentors. The CCSEM mentoring program coordinator primarily communicates with student coordinators and the medical school faculty advisor to assist in activity planning and dissemination of information among families. Faculty advisors collaborate with students and CCSEM coordinators for the development of the educational sessions, creation of learning objectives, development of mentor training material, budgeting, organization of field trips, and approval of educational sessions. The faculty advisor and CCSEM coordinator codeliver a mentor training session to describe the goals of the program, strategies for being an effective mentor, the restrictions for mentors (e.g., no transportation of minors in personal vehicles, no connection on social media), and mandated reporting.

Recruitment begins in the fall of the first preclinical year for medical students. The program runs from January to December within one calendar year to allow for overlap in leadership; it was found that this structure, which is based on the medical school's academic calendar, aids the transition in leadership between previous and new student coordinators. Beginning the program in January of the first preclinical year (after the conclusion of the first semester) and ending in December after the first semester of the second preclinical year enables students to focus on being consistently present and participating fully in the program. Using this schedule avoids a number of potential conflicts, such as adjusting to the rigors of medical school in the first semester or studying for Step 1 of the United States Medical Licensing Exam, which is typically taken at the end of May in the second preclinical year.

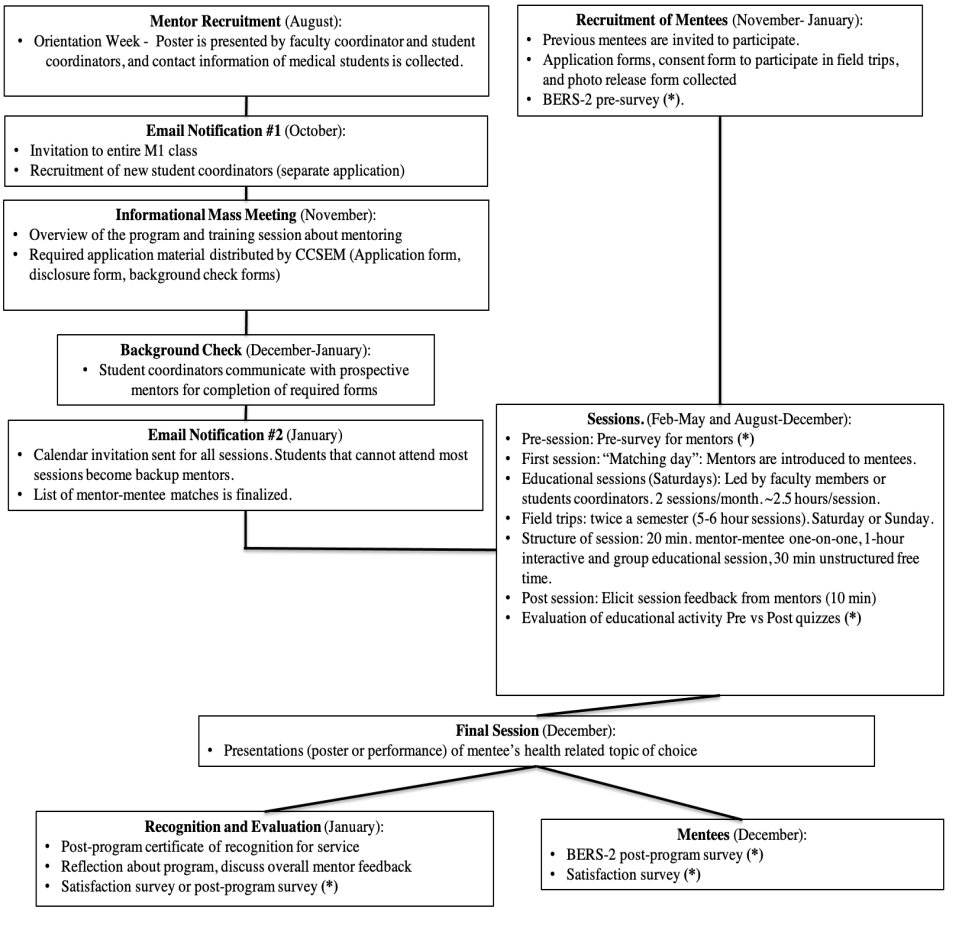
Mentors are paired with mentees between the ages of 7 and 17 of the same gender, when possible. Although Spanish language fluency is not a requirement, bilingual mentors are paired with children whose primary spoken language is Spanish. The mentors are expected to call their mentee once a week, and contact hours are logged. Activities are scheduled approximately 16 times per year, and usually involve four field trips and 12 educational activities. A variety of field trip experiences have been offered, including painting, visiting art or science museums, and exploring amusement parks, among other locations. Mentees have given positive feedback about field trips and report that they enjoy bonding with their mentors outside the classroom setting.

Educational Sessions

The educational sessions are broad in subject matter. Sessions have included hands-on experiences with basic microbiology, handwashing activities, information about the risks of smoking, allergy education, and dialogue on facing personal challenges, in addition to other topics. Student coordinators collaborate with the faculty advisor and other faculty members to develop engaging activities and basic learning objectives for each session. Prior to session delivery, the student and faculty coordinators meet with participating faculty members to design age-appropriate educational sessions related to the faculty member's area of expertise. The team collaborates on the development of session objectives, formative assessment questions, interactive worksheets, and hands-on activities for mentor–mentee pairs, which are documented in a formal template for future use by the mentoring program. Sessions are typically copresented by the faculty expert and student coordinators.

Educational sessions typically begin with a formative assessment including five multiple-choice questions, followed by mentor–mentee self-directed learning. The mentor–mentee pairs then utilize technology to search for answers to additional questions and activities related to the session topic. Based on participant feedback, younger mentees and older mentees are generally separated, so that collaboration between mentor–mentee pairs can occur among similar age groups. After age-specific small-group discussions, the whole group reconvenes for further discussion, which allows mentees to share new knowledge in the group setting and develop confidence and leadership experience by teaching their peers. Some sessions involve interactive educational games after large group discussions, which motivates the children to use the information they have just learned in a

Figure 2: Logistic Outline of OUWB-HNO Mentoring Program



(*) indicates where surveys and formative assessments are obtained

friendly competition. Prior to the conclusion of the lesson, mentees take another brief formative assessment, which allows program leadership to quantitatively assess the effectiveness of the lesson on mentee learning.

Early in the program, the mentees are introduced to the opportunity to work with their mentor on a longitudinal project related to any aspect of health or well-being. Following the structured activity portion of the session, mentors and mentees are encouraged to learn about how their topic of interest relates to health and express this information by any medium of their choice (e.g., PowerPoint presentation, poster, or performance). Mentoring pairs are given a great deal of freedom in expressing this information, and the children are able to finish their mentoring year with an educational presentation in front of family and friends.

Use of Technology

The utilization of strict organization and documentation of program activities is paramount for the program's continued success. Our program utilizes a secure online shared drive to store a master list of all recordkeeping items created to date, including attendance spreadsheets, budgeting documents, mentor–mentee weekly phone call logs, templates for all educational activities, email templates, meeting agendas, legal forms, and recruitment materials. Educational activity templates are particularly important for continued success of the program, so that faculty expertise can be carried forward in future sessions if the session is delivered by individuals not originally involved in activity design. The master list templates are used for each further iteration of the program to ensure consistency of program delivery. Strong organization of program materials has increased the ease

of transition in medical student leadership from year to year, as well as contributing to decreased time spent on administrative tasks and activity planning. It also allows leaders to easily share these materials with other institutions interested in collaborating on the development of similar programs. Furthermore, consistent recordkeeping with an online shared database simplifies program evaluation.

Program Growth Over Time

The program has changed in structure and magnitude over time, as demonstrated in Table 2. Since its inception in 2016, mentee and mentor enrollment has consistently grown. The number of sessions has changed from year to year, in part because of structural changes with our community partner, CCSEM. Feedback from mentors and mentees has led to increased numbers of field trips, as both mentors and mentees stated that activities outside the center further facilitated bonding. The number of medical school faculty involved has also changed from year to year; this is largely a function of topic selection by student coordinators and the faculty advisor, in addition to the amount of educational sessions versus field trips. Sessions are created through collaboration between student coordinators and faculty members, and are approved by the faculty advisor or other faculty members knowledgeable on the topic. Additionally, many of the sessions have been led by student coordinators or other student interest groups.

Challenges

Many challenges arose during the development and preservation of the mentoring program, which led to changes and adaptations over several iterations of the program. Significant challenges addressed include scheduling conflicts with both medical students and mentees, inconsistent participation among mentees, changes in leadership personnel, and effective development of age-appropriate activities for multiple age groups (Table 3). A student debriefing is held at the conclusion of each year-long program to discuss program strengths and weaknesses, and identify improvements for subsequent iterations of the mentoring program.

Program Evaluation

The program is evaluated at multiple levels, including a parental assessment of children's behavior, assessment of the impact of the program on medical students, assessment of mentee satisfaction with the program, and brief quizzes that assess session effectiveness. A nonhuman subject research approval was obtained from the Oakland University (IRB #1192710).

Medical Student Satisfaction

At the termination of each program cycle, medical students are surveyed on their experience as a mentor and their overall satisfaction with the program (Table 4). A Likert-style scale survey is administered

Table 2. Mentoring Program Outcomes (2016–2019)

	Mentoring Program 2016	Mentoring Program 2017	Mentoring Program 2018	Mentoring Program 2019
Number of sessions	8	16	12	15
Part of LMSA chapter*	No	Yes	Yes	Yes
Student coordinators	1	4	2	2
Professors involved	1	5	2	2
Medical students	12	18	25	32
Mentees	11	19	25	32
Educational/bonding topics	5	13	8	11
Number of field trips	3	3	4	4
Community service hours	471	1,090	1,076	1,800
Program manual created	No	No	No	Yes

*Latino Medical Student Association (LMSA) has been actively involved since 2017.

Table 3. Program Challenges and Solutions

Challenge	Specific problem	Solution	Comments
Medical student scheduling*	Initial pilot program: one-semester mentoring program → shorter mentoring relationships Decreased mentor attendance due to academic obligations or commitment to other cocurricular activities M1 and M2 calendars did not align → difficulty accommodating study needs of both classes	Recruit only M1 students to commit to one year of participation from January of M1 to December of M2 Choose session dates that avoid weekends before M1 or M2 preclinical exams	The first semester of M1 year is a challenging transition for many students. In the second semester of M1, the academic calendar improves in flexibility and more students have the availability to volunteer. The second semester of M2 year is when most students focus on studying for the USMLE Step 1 exam, leading to less time for cocurricular involvement.
Mentee participation	Challenges with transportation to CCSEM → inconsistent attendance Late arrival or last-minute changes in family plans → decreased attendance Some families did not have a reliable phone number → difficulty communicating anticipated absences	Establish minimum attendance requirements for program involvement Create an optimized program timeline based on medical student scheduling → improved attendance by both mentors and mentees CCSEM coordinator calls and confirms mentee attendance each week	Attendance issues had some negative consequences on mentor–mentee relationships. This brought up the concern that mentees who did not feel that their interactions with the mentors were meaningful would be less likely to return for the program. Communications with a trusted Spanish-speaking CCSEM coordinator from within the community positively affected mentor–mentee bonding and led to increases in mentee attendance and enrollment in the program in the following years.
Personnel	Midprogram changes in personnel (CCSEM coordinator) → issues contacting families for mentee recruitment → delays in beginning a new iteration of the program	Clear communication with community partners to minimize impact in program Strong recordkeeping through shared databases	Utilizing a consistent format each cycle aids in leadership transition in the event of unexpected changes, allowing new iterations to build upon past iterations.
AGE	Wide mentee age range (7–17) → decreased attendance on age extremes • Youngest mentees had difficulty understanding the content of more challenging sessions • Older mentees occasionally less engaged due to the information lacking complexity needed for their age group	Sessions designed with respect to median age, but mentor–mentee pairs separated into older (12–17) and younger (7–11) groups → enhanced age-appropriate discussion of educational topics Alternate solution: Pair older mentees with younger mentees → older mentees motivated to work with their mentors to help teach younger peers	These changes emphasized building stronger relationships between mentees while allowing the older mentees to experience a leadership role, which led to improved attendance from both younger and older mentees. Regardless of the age group, providing sessions at the beginning of the program that promote the sharing of personal challenges and past experiences between mentors and mentees (i.e., life challenges) seems to have facilitated a better environment for the mentor–mentee bonding as reported by mentors.

**M1: first year medical student, M2: second year medical student.*

Table 4. OUWB–HNO Mentoring Program—Medical Student Satisfaction Survey

Question	2016–2017	2018
Q1: Students with mentoring experience	69%	83%
Q2: Students who previously mentored Hispanic children	20%	26%
	Average (SD)	
Satisfaction with mentoring program (1 = Strongly dissatisfied, 6 = Strongly satisfied) Q3: Overall, how satisfied are you with the mentorship program? Q4: Overall, how satisfied are you with the educational activities?	5.13 (0.69)	5.17 (0.68)
Self-rated proficiency (1 = Not at all proficient, 6 = Strongly proficient) Q5: How would you describe your proficiency as a mentor before you finished at HNO? Q6: How would you describe your proficiency as a mentor after you finished at HNO?	2.69 (0.47)** 3.47 (0.50)**	3.04 (0.82)** 3.65 (0.49)**
*Communication** Q7: After this experience, I feel more comfortable interacting with children in general. Q8: After this experience, I have learned to better communicate with children.	5.17 (0.57)	5.02 (0.49)
*Understanding the needs of children** Q9: After this experience I better understand the needs of the children in general. Q10: After this experience I better understand the needs of Hispanic children in this community.	4.87 (0.65)	4.87 (0.59)
Recommendations to other students (1 = Strongly would not recommend, 6 = Strongly recommend) Q11: Would you recommend other medical students to become mentors for the OUWB–HNO mentoring program?	5.48 (0.59)	5.61 (0.72)
*Impact on future career** Q12: Being a mentor as medical student will help me as a future physician.	5.48 (0.74)	5.48 (0.90)
*Health-related learning** Q13: I have learned about health-related topics during the mentoring program.	4.1 (1.29) (n = 18)	4.61 (0.89) (n = 23)

Note. Data for each area of study was pooled. Averages and standard deviation were calculated.
** A Likert-style scale was given to mentors to rate 1 (strongly disagree) to 6 (strongly agree) on program attributes.*
*** Denotes statistically significant result in self-rated mentor proficiency before and after program participation.*

on program attributes involving several topics, including overall satisfaction with the program, self-rated proficiency as a mentor, communication skills with children, and perceived relevance of the program to a student's career in medicine. In both 2016–2017 and 2018, a statistically significant difference in self-rated mentor proficiency was found ($p < 0.00001$ and $p < 0.0002$, respectively). Additionally, 83% of 2016–2017 mentors and 87% of 2018 mentors felt that they learned about health-related topics during the mentoring program. Mentors also consistently reaffirm the value of the program to their future career as a physician, and to understanding the needs of Latinx children, in addition to other children.

Parent Assessment of Children

The 52-item BERS-2 tool uses separate rating scales that measure parent and youth self-ratings in several behavioral and emotional categories, including interpersonal strength, intrapersonal strength, family involvement, school functioning, and affective strength (Duppong Hurley et al., 2015). Our preliminary results demonstrate significant improvement in all five categories of assessment, and will be presented in future studies of the program.

Children Self-Assessment

Additionally, the mentees were asked a variety of questions regarding their relationship with their mentor. The majority of mentees either agreed or strongly agreed that they achieved personal improvement on assessments of school functioning, feelings of encouragement from mentors, feelings of self-efficacy, and communication skills; continued assessment of these factors is ongoing and will be presented in future reports regarding additional program evaluation.

Evaluation of Educational Activities

Among 16 educational activities provided in the first three cycles of the mentoring program, eight were evaluated utilizing presession and postsession quizzes, including handwashing, healthy lifestyles, microaggressions, smoking prevention, dental hygiene, sleep habits, art therapy, and harms of drugs. Preliminary data, which will be presented in future studies, show significant improvement in performance between pre- and postsession quizzes in six out of eight activities evaluated, suggesting that mentees are learning and retaining information during these sessions.

Mentor Specialty Choice Outcomes

The program has graduated two classes of senior medical students since its inception. In the 2016 and 2017 classes, nine out of 17 (52.9%) and seven out of 22 (31.8%) graduating senior participants matched to specialties likely to result in a career in primary care (PC), including internal medicine, pediatrics, obstetrics and gynecology, and/or medicine and pediatrics. In total, 16 out of 39 graduated mentors (41.0%), versus 99 out of 236 (41.9%) of all 2016 and 2017 graduating seniors, matched into PC specialties.

Other Outcomes—Leadership and Scholarly Activity

Participation in the OUWB–HNO Mentoring Program has led to multiple additional leadership opportunities and scholarly activities for its participants. To date, five posters, two workshops, and two oral presentations have been developed as a result of continued development and evaluation of the program. Connection to a national student organization through LMSA has allowed our group to interact with other chapters at national meetings in 2017, 2018, 2019, and 2020 to date. We have been able to network with students and faculty at other institutions, discuss the community endeavors of other groups, and advise other chapters on how to begin similar programs. This has allowed us to engage in cross-institutional philanthropic discussion, while simultaneously offering professional development opportunities for our mentoring program members.

Reflection and Discussion of Program Impact

We have created a productive partnership between a school of medicine and the Latinx community by establishing a longitudinal mentoring program. This program has offered 3,800 service hours to our medical students, increased Latinx youth and medical student knowledge of health-related topics, improved student communication skills with children, and increased students' knowledge of the Latinx community. We predict that efforts to integrate this program or similar programs as an elective

within a medical school curriculum, rather than as a cocurricular activity, could offer students a unique way to meet this learning requirement in a manner that has been evidenced to be mutually beneficial for the surrounding community. The program goals developed between OUWB and CCSEM align strongly with the core concepts of service-learning, and future replications of this growing program may provide effective opportunities for medical students to improve their cultural competence while engaging in structured service-learning.

Building a partnership founded on strong mutual trust between CCSEM and OUWB was essential to developing a sustainable program. It is well established that community–academic partnerships can lead to beneficial outcomes for both community-based organizations and academic institutions (Nora et al., 1994; Voss et al., 2015). The steps taken to foster collaboration between our community partner, medical school faculty, and medical students has led to the creation of a program that aligns with each institution's mission and vision (Figure 1). Our partnership has led to goal-driven initiatives that address issues of health inequity, facilitate community service, and foster leadership development, much like what has been previously described in literature regarding development of successful community–academic partnerships (Boothroyd et al., 2017; Stewart & Wubbena, 2014; Voss et al., 2015). Continued inclusion of CCSEM personnel in program design and execution (Table 1) allowed for development of trust early on in the partnership. This ensured consistent representation of community values in longitudinal planning and further contributed to the success of our community–academic partnership. We acknowledge that the leadership provided by a Latinx faculty member may have facilitated the establishment of a strong relationship with the Latinx community program, which may correlate with trends seen in other instances where language concordance is an important factor in the development of interpersonal relationships (Diamond et al., 2019). Furthermore, the trust built between the community and our institution has also resulted in the creation of additional programs, including a summer anatomy program and an SAT preparation course for Latinx high school students, which demonstrates the strength of our partnership.

Many of the challenges observed during the process of developing this program are likely to be common among community service endeavors: Scheduling, transportation, unforeseen lack of key personnel, and mentee participation (Table 3) were the most relevant. The program faced several challenges related to mentee participation; however, external influences may have had unexpected consequences for mentee attendance. The increased stigmatization of immigrants in the nation's current political climate may have propagated the notion of unsafe conditions and contributed to decreased attendance in particular sessions (Morey, 2018).

Most students have reported positive experiences regarding their involvement with the program, and we have not received feedback regarding difficulty with program time commitment and completing preclinical coursework. Student coordinators are able to serve as substitute mentors in the event of academic, family, or personal needs of participants. Student coordinators distribute the semester event schedule several weeks in advance, with ample opportunity for time management among mentors. We are not aware of specific positive or negative impacts of program participation on academic performance or other outcomes. Cumulative service hours logged by the program are attributed only to hours served with the mentoring program (in-person mentoring, phone call mentoring, and student coordinator service hours). Many students are also involved in other volunteer activities, though we do not have data including service hour totals outside the program. Future program evaluation may involve additional study regarding these factors.

We believe that several factors have contributed to maintaining consistent structure and organization of the program. The combination of technology (i.e., Google Drive), content experts (faculty members), and the delivery of interactive sessions (pedagogy) plays a fundamental role in making the educational sessions effective and sustainable throughout the year, which aligns with the educational framework proposed by Koehler et al. (2014). In addition, building the partnership (Table 1) also required defining clear goals based on the needs of community stakeholders, building a highly skilled team, strategic planning, and resource acquisition, similar to strategies utilized in business growth and entrepreneurship (Machado, 2016). Rigorous attention to pro-

gram structure (Figure 2) and establishment of key personnel and roles and functions (Table 1), in addition to strong recordkeeping and organization, has allowed us to present a consistently beneficial program over time, even with the inevitable turnover in participants. These factors have also allowed us to gather data that shows the program's success in meeting its primary mission: to create strong bonds between medical students and at-risk Latinx youth that encourage positive life choices, promote health, and enable mentees to maximize their full personal potential. Programs fostering strong relationships between minority youth and medical student role models may encourage youth participants to pursue higher education, which could contribute to reductions in the higher dropout rate of Latinx students (Polk et al., 2013). We have also observed that Latinx mentees in our program have shown interest in becoming physicians or health professionals. It is warranted to evaluate these initiatives longitudinally to measure their impact.

There is clear evidence of the impact of the program among medical students, faculty, and the community given the significant growth of the program over time demonstrated in Table 2. The service hours that students have accrued, in addition to participation in other scholarly opportunities (abstracts, posters, workshop presentations) made possible by consistent program evaluation, may increase competitiveness for the residency match process; such results have been demonstrated in surgical professions (Rinard et al., 2010). Several students have also described their participation in the mentoring program as a meaningful topic of discussion during the residency interviews. We are currently unable to determine whether the program results in a significant difference in the selection of primary care specialties among participants, given that there are similar overall rates of primary care specialty selection between our two graduated mentor cohorts and their respective classes. Regardless of chosen specialty, students and faculty members have been recognized for their experiences in the program through awards and scholarships, further contributing to professional advancement.

The establishment of partnerships between community organizations and medical schools meets the dual goals of providing service opportunities for medical students and fulfilling the need for mentorship to community youth. There is a lack of literature describing specific strategies for instituting outcomes-based mentoring programs that allow medical students to engage with and serve the local community. Based on mentor satisfaction data (Table 4), we have observed that medical students are highly satisfied with the program, and through it they have gained communication skills and increased their understanding of the needs of Latinx children. Analysis of early program data has given us an optimistic outlook on the capacity of this program to make a positive impact on both medical students and Latinx youth. Thus, this program has the potential to fulfill the LCME requirement for cultural competence training in early medical education. Of note, we have observed in postprogram reflection sessions that medical students have expressed personal motivation to continue learning about other cultures, suggesting that similar programs could be used to foster the crucial element of cultural humility extensively described in the literature (Campinha-Bacote, 2011; Tervalon & Murray-García, 1998). We envision that future iterations of this program intended to serve populations other than the Latinx community would find similar success with development of cultural humility in medical students.

Conclusion

We have described our 4-year experience in cultivating an effective partnership with a local Latinx community organization through the creation of an outcomes-based mentoring program within a student organization. Mentors and mentees have experienced personal growth from their interactions, and they report improved confidence and communication skills, among other strengths. The central elements for providing this unique opportunity for medical students to become leaders and mentors include detailed program organization and implementation, and strong dedication to development of trust with our community partner. Our current direction includes the development of a program manual that directly outlines the foundational steps for creating a similar program and provides a detailed account of educational activities. We also aim to implement additional sessions focused on cultivating cultural humility in medical students. It is our hope that other academic institutions can utilize

strategies within our framework to develop programs that promote positive relationships between medical students and diverse communities across the country.

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