

Analysis of Focus Group Results for Teleophthalmology to Improve Eye Health among Latinos (TIEHL) Study



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INTRODUCTION

- Compliance with annual dilated eye exams is about half amongst diabetic patients and even lower in Latino populations
- Telemedicine has been used to increase compliance in a cost-efficient manner while providing diabetic eye disease education
- Using community-based approach, we established a teleophthalmology program at the United Community Center (UCC) in Milwaukee

AIMS

- To ascertain the attitudes and knowledge of urban Latinos in Milwaukee about **diabetic eye disease (DED)** and telemedicine
- To assess their response to teleophthalmology screenings at a community center facilitated by Spanish speaking staff

METHODS

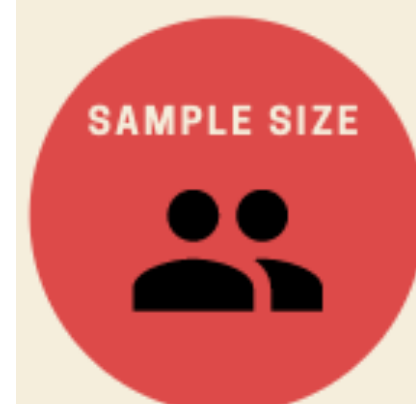
- From 2014-2015, English and Spanish pre-and post-screening **focus groups (FG)** were held at UCC
- Baseline DED knowledge was gathered with National Eye Institute's Eye-Q test
- Two researchers independently analyzed FG transcriptions and common themes were coded and discussed

RESULTS



100% OF PARTICIPANTS WHO UNDERWENT TELEOPHTHALMOLOGY SCREENING AT UCC RESPONDED POSITIVELY

- Location preference
- Trust in staff
- Comfort speaking Spanish



	SPANISH	ENGLISH
PRE-SCREENING FG	7	7
POST-SCREENING FG	6	4

HOW TO RAISE AWARENESS OF DIABETIC EYE HEALTH WITHIN LATINO COMMUNITY

FAMILY AS A MEANS OF HEALTH PROMOTION

- Video showcasing a multigenerational, single household affected by DED
- Education about diabetes in school so that children can bring concepts back home

DIABETIC EYE DISEASE KNOWLEDGE: EYE-Q TEST English FG: 57% Spanish FG: 41% p=0.20

Questions which were answered incorrectly by all
 - Spanish FG: **People who have good control of their diabetes are not at risk for DED**
 - English FG: **DED usually has early warning signs**

TELEMEDICINE

- | | |
|--|--|
| + | - |
| <ul style="list-style-type: none"> - Efficiency - Convenience - Not needing transportation - Early disease detection | <ul style="list-style-type: none"> - Loss of physician-patient relationship - Potential additional costs - Initial fear of technology |

"If there was something here at UCC, even though I feel like I don't need it, I never had it, I would completely do it, it makes it so easy. Convenience."

ATTITUDES TOWARDS DED AND SEEKING CARE → **POOR EMPHASIS ON PREVENTATIVE CARE**

"If [my relative] didn't have diabetes, she might not have had an eye exam until she was losing her sight. Because only when you feel the problem is when you do something."

LIMITATIONS

- Initial Eye-Q test was the only quantitative assessment performed
- FG participants may not be representative of those who eventually received screening intervention
- Semi-structured interview format resulted in some discrepancies in FG questions

CONCLUSION

- FG participants had positive experiences with teleophthalmology screenings done at UCC and listed various factors that broke down barriers to preventive eye screening
- Unlike most teleophthalmology studies in the literature, our study is unique for assessing screenings done in a community center versus at clinics
- High acceptance of this novel teleophthalmology approach may help improve compliance to annual screenings in the urban Latino communities

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Background

- Lack of disease prevention and daily management education is seen in all patient populations, and especially the underserved (1).
- CHECK UP is a student-led program to identify and address gaps in medical education to improve patient outcomes.
- An understanding of the visual system, its interaction with other bodily systems, and the consequences of dysfunction are relevant for all medical practitioners, and especially primary care physicians.
- Up to 10% of all patients who present to their PCP do so with eye-related conditions (2).

Methods

- A Qualtrics survey will be sent to primary care physicians (family and internal medicine), emergency medicine physicians, and 4th year medical students.
- Likert scale questions aimed to assess level of comfort with basic eye exam techniques, triaging, diagnosing, treating ocular disorders and injuries and educating patients on prevention and management of common eye conditions.

On a scale of 1-10 (1 = very poor, 10 = excellent) how would you rate your ophthalmology knowledge?

Not at all likely Extremely likely

0 1 2 3 4 5 6 7 8 9 10

What are the most common eye-related conditions you see in your practice? Medical Students please do not answer this question.

Which of the following do you wish you had received more training for in **medical school or in residency**? Please select all that apply.

	Diagnosis and screening	Prevention	Treatment
Allergic conjunctivitis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age-related macular degeneration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Glaucoma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diabetic retinopathy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cataracts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retinal detachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How comfortable do you feel triaging:

	Not at all	Somewhat comfortable	Comfortable	Very comfortable
Red Eye	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Swollen eyelid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visual disturbances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eye pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Abnormal red reflex	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How comfortable do you feel treating:

	Not at all	Somewhat comfortable	Comfortable	Very comfortable
Conjunctivitis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Corneal abrasions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Red eye	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dry eyes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Swollen eyelid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How comfortable do you feel triaging the following traumatic eye injuries?

	Not at all	Somewhat comfortable	Comfortable	Very comfortable
Anisocoria	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Corneal abrasions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subconjunctival hemorrhage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hyphema	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blunt trauma of the orbit/eye	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Abusive head trauma (Shaken Baby Syndrome)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 1. Sample questions of needs-assessment survey

Results

- We anticipate discomfort among general practitioners in basic eye exam techniques, triaging, diagnosing, and treating ophthalmic conditions.
- We anticipate that current physicians and students will indicate need for increased ophthalmic education in medical training.
- We expect the need for continued education on referral recommendations to ophthalmology.

Conclusions

- Ophthalmic medical student education is a cornerstone to improving eye health care in the general population.
- This project engages the physician and student community to understand if more training is needed to equip medical students to have a formative impact on patient-engaged education for ophthalmic conditions.
- A student-delivered CHECK UP workshop will be offered for junior medical students to fill the gaps in pre-clinical ophthalmology medical education.

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Implementing Telemedicine at a Student-Run Free Clinic: Adapting Operations to Continue our Mission During a Pandemic

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Background

In response to the COVID-19 pandemic, healthcare systems sought alternatives to traditional care platforms, turning to telemedicine to provide the bulk of primary medical care. Prior to the pandemic, most medical care was provided in face-to-face visits.

Saturday Clinic for the Uninsured (SCU), a Medical College of Wisconsin (MCW) student-run free clinic, solely provided in-person care prior to the pandemic. In March 2020, SCU leadership began developing a telemedicine program that was launched in July (Figure 1).

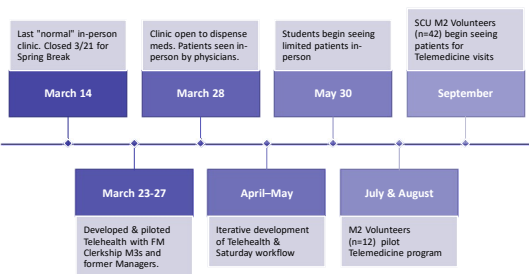


Figure 1. Timeline for Implementing Telemedicine Program

Methods

Statistical analysis of volunteer involvement using application records and surveys. Patient visit data was obtained from clinic visit schedules.

Student T-test was used to determine statistical significance.

Results

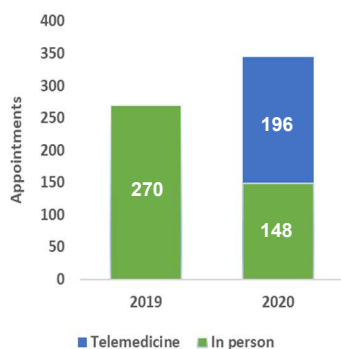


Figure 2. Total number of in person and telemedicine appointments for 18-week period between July-October

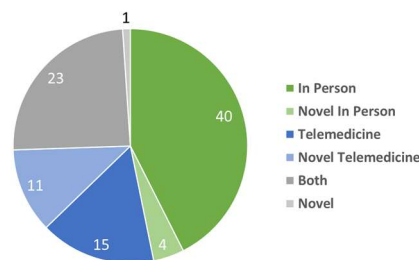


Figure 3. Distribution of interest in telemedicine & in person volunteerism among 94 M2 student applicants. Data displayed in absolute values.

M2 Student Volunteer Evaluation of the Program

An anonymous survey to obtain feedback on telemedicine experiences was sent to all 42 M2 Telehealth volunteers. Response rate 31%.

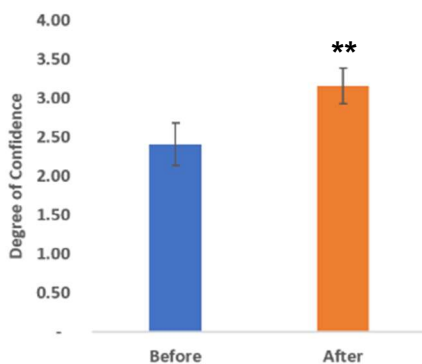


Figure 4. Self-rating of degree of confidence completing a patient interview before beginning program and after volunteering & training. Average rating by survey respondents (n=12) on a Likert scale 1-5, with 1 being not at all confident and 5 being extremely confident. ** p<0.01

Preliminary Qualitative Data

- Students believe the SCU Telemedicine experience has enhanced their medical training

Successes

- "I feel like the Telemedicine visits have been much more efficient than the in-person visits I conducted last year."
- "Telemedicine is a really great way [for patients] to get their meds without needing to come into clinic for an appointment."

Challenges

- Many patients still "end up being scheduled for an in-person visit" for a physical assessment.

Discussion & Conclusion

- SCU's telemedicine program has the potential to increase the clinic's capacity to provide care.
- Students are interested in developing their telemedicine skills and the program has been successful in meeting volunteer goals among individuals.
- Preliminary data suggests that students find this program a beneficial supplement to their clinical education.
- Preliminary data suggests that telemedicine volunteers complete an increased number of appointments compared to their counterparts volunteering in-person at the clinic.

Future Directions

- Further investigation is needed to determine how many individual patients were served via telemedicine rather than appointments.
- Develop a system for obtaining patient feedback.
- Improve volunteer training and program experience.
- Continue surveying volunteers for additional input and planning.

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Medical Student Competencies for Community Engagement Informed by Community Stakeholders

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Abstract

Medical student engagement in the community can be an important part of their professional development. To gain a better understanding of what students might gain from participating in these experiences, we interviewed 29 community stakeholders. Coding this feedback, we identified themes and four relevant character traits: perspective, trustworthiness, perseverance, and social intelligence. We piloted several feedback mechanisms for both students and community mentors, including the development of a Community Engagement Feedback Tool that was used to track students' progress over the two year experience. Focus groups were conducted with the medical students to help them reflect on their experiences and to inform future efforts. Community member feedback can help drive student learning experiences and can support the formation of the mutually beneficial relationships needed to drive positive community outcomes.

Methods

Interviews or focus groups were conducted with 31 community stakeholders with unique perspectives on health concerns in Central Wisconsin. Informed consent was obtained prior to each interview. A demographic survey was administered to each interview subject following their interview. Interviews were recorded, transcribed, and coded. The protocol was reviewed by the MCW IRB PRO: 00023096

	Stakeholders Interviewed	Marathon County Population
Female	58%	50%
Hmong Ethnicity	0%	6%
≥ 50years	48%	36%
Bachelor's degree or higher	94%	25%

Table 1. Stakeholder characteristics in comparison with Marathon County

Results

Identified Characteristics

Perspective

"I believe that it is so important that doctors understand the community, understand the culture of the community...you have to have your finger on the pulse."



Trustworthiness

Trustworthy people exhibit motivation and commitment to do what they have been tasked to do *and* possess the knowledge and competence to do it (Hardin 28-31).

Perseverance

The capacity to work and exert effort in spite of obstacles and challenges, demonstrating resilience to proceed and be continually engaged



Social Intelligence

"Your best doctors are doctors that understand their patients and are able to relate and engage."

Table 2: Characteristics and their respective stakeholder quotes. The definitions listed reflect a consolidation of various definitions to demonstrate how the traits are expressed in action

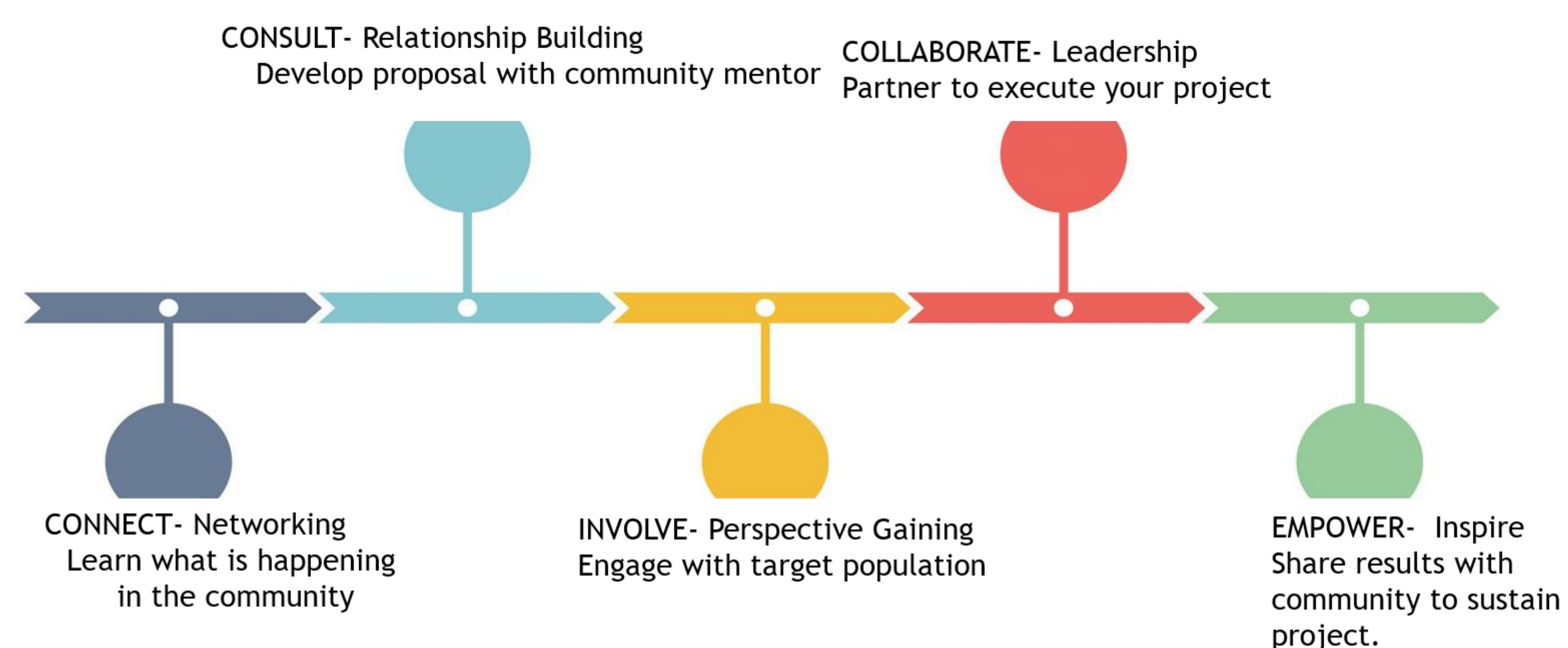


Fig. 1: Physician in the Community Feedback Tool used to assess community engagement

Conclusions and Future Directions

- Community engagement during medical school helps medical students to develop skills desired by community members
- Identified traits in future physicians can be quantified through reflection and monitoring to assess progress
- Collect feedback and connect with Hmong and other groups under-represented in this set of interviews.
- Assess the effectiveness of the Physician in the Community course in students' progression using the Community Engagement Feedback Tool

Acknowledgements

LM received funding from WI Area Health & Education Center through Community Health Internship Program. CN and AP received support from the Kern Institute. We would like to extend our thanks to all of our community partners and Nick Giordano for his assistance with the data analysis.

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A Survey of Wisconsin Physician Gender Bias

Brittany Schultz, MS3 & Kristin Tischer, MS3

INTRODUCTION

Over 70% of female physicians have reported experiencing gender bias in their career¹

Female physicians earn on average \$20,000 less than their male counterparts⁴

Female physicians make up over one-third of working doctors, 46% of residents, and over 50% of medical students, and yet they a very small portion of leadership positions in medicine and are less likely to be promoted³

Physician mothers report 90% gender discrimination they have experienced was related to pregnancy, maternity leave, and 50% reported disrespectful comments about breastfeeding on the job⁴

A 2018 study that surveyed 7,409 US general surgery residents found that gender discrimination was reported by 31.9% of residents, 65.1% of those residents were female and 10% were men⁵.

PURPOSE

To study how Wisconsin physicians view gender bias in the workplace.

To help create a discussion about how Wisconsin communities can eliminate gender bias.

METHODS

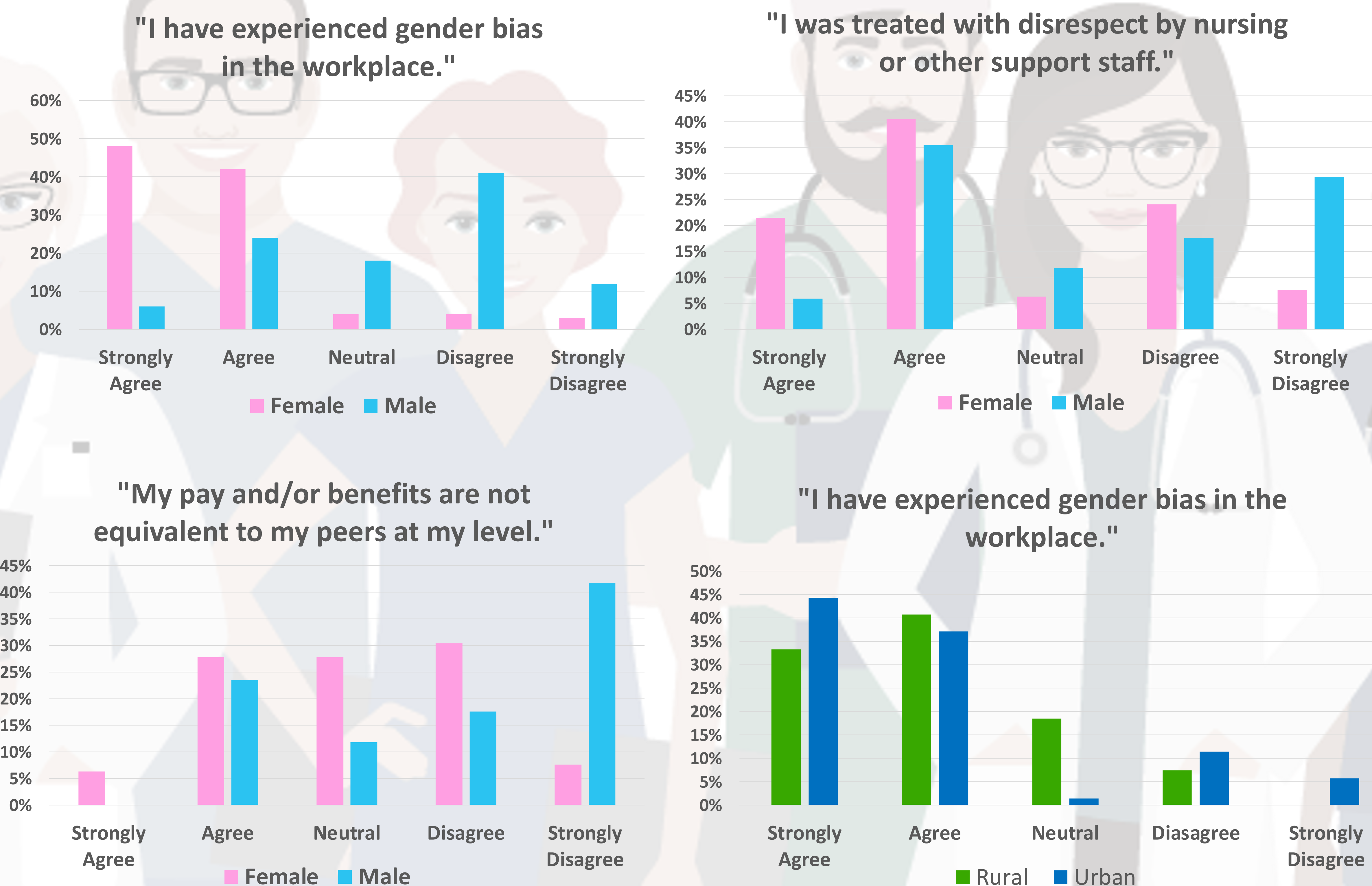
An electronic survey was distributed via a link in the Wisconsin Medical Society's online newsletter.

Demographic information such as age, gender, medical specialty, and location of practice was gathered.

Using a Likert scale, participants answered seven questions regarding their personal experience with gender bias.

Participants were given the option to share personal stories and/or their opinions on the subject.

RESULTS



"As a female physician I am constantly being assumed to be the nurse. Male patients have referred to me as 'sweetie' and 'honey'..." – Female, Family Medicine, Age 40–50

"...The gender bias over the course of my career was constant and pervasive. I am sure that I, too, am guilty of that bias, however much I resisted it when I could see it. I know that we all could do so much better." – Female, Internal Medicine, Age 60+

"One of my peers states that the reason there is a shortage of doctors in medicine is that there are too many women in medicine. He has done this on multiple occasions in front of me..." – Female, Age 50–60, Plastic & Hand Surgeon

"Gender bias exists primarily in the eyes of individuals looking to be offended...Women in the past have worked less than men in ortho, thereby making less money. That's not bias. A physician cannot 'have it all.' If one wishes to spend more time in non-medical activities, less money may be earned. Period." – Male, Orthopedics, Age 60+

"As a white male, if I have experienced gender bias, it would be in my favor. Most notably, my voice seems to be respected at meetings..." – Male, Family Medicine, Age 40–50

CONCLUSIONS

A total of 96 Wisconsin physicians responded to the survey; 79 females and 17 males.

Of the responses, 90.1% of female physicians reported having experienced gender bias, whereas only 29.4% of male physicians reported experiencing gender bias.

In addition 64.7% of men answered that their pay was equivalent to other colleagues in their same specialty, whereas only 33.8% of female physicians reported that their pay was equal to colleagues in the same specialty.

One limitation of the study was a low response rate from male physicians. In order to get a more representative understanding of male physicians' viewpoints on gender bias more male participants are needed.

Overall, the results from the survey show that gender bias exists among Wisconsin physicians and may indicate a larger scale gender bias that exists in society.

Future studies are needed to determine specific strategies hospitals and academic institutions can take to eliminate gender bias in medicine.

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Impacts of a Service-Learning Health Education Program on Public Housing Residents and Medical Student Leaders

This study aims to solicit HG resident feedback and assess long-term impacts of student participation to inform goal-directed program improvements and best meet the needs of both students and residents.

Methods

Public Housing Residents

1. Compiled attendance since 2017
2. Collected medical student field notes & reflections, since 2018
3. Conducted 2 focus groups and 3 interviews of HG residents, asking questions regarding motivations/barriers, benefits, areas for improvement
4. Recorded and transcribed
5. Coded transcriptions using pre-identified codes with multiple coders to ensure reliability

Medical Student Leaders

1. Compiled names of medical student leaders since program initiation in 2011
2. Conducted 6 interviews asking reflective questions about participation and potential impacts on self and career
3. Recorded and transcribed
4. Coded transcriptions using pre-identified codes with multiple coders to ensure reliability



Results

Public Housing Residents

- 45 distinct residents attended since January 2017.
- Residents attended (mean) 5 sessions (range 1-20)
- On average, 10.8 residents attended per session
- 11 (24.4%) participated in a focus group (n=8) or individual interview (n=3)
- 1 student provided field notes on 8 sessions

Qualitative Analysis revealed four primary themes (Table 1):

Theme	Representative Quotes/Observations
1. Desire to Learn	• "We need to learn those things about our body."
2. Dedication to Helping Others	• "We can spread the words of what we learned from these meetings."
3. Generation of a Community	• "We're a group, we trust each other."
4. Frustrations with Healthcare	• "The doctors don't have the time like they used to to explain the things that you really need to know and want to know"

Table 1

Barriers to Attendance: personal obligations, lack of interest, speculated laziness or lack of care about one's health
Areas for Improvement: increasing advertising and activities

Results (continued)

Medical Student Leaders

- 9 total identified graduated student leaders
 - Typically 2-3 years of participation
 - Two represented specialties: Internal medicine (5), pediatrics (1)
- Qualitative analysis** revealed five primary themes (Table 2):

Theme	Representative Quotes/Observations
1. Communication Skills	• "I really liked learning how to talk about things in a nonmedical way"
2. Seeing Healthcare in Community Setting	• "You come away learning much more about how medicine works and how people feel about medicine"
3. Resident Relationships	• "Looking forward to seeing those people and having those conversations"
4. Fostering a Love of Community Work	• "Solidified my goal to serve whatever community I ended up in...and really to make community talks and topics part of my outreach."
5. Making a Difference	• "Felt like we were actually helping people who needed help"

Table 2

Areas for Improvement:

- Incorporating more activities
- Further collaborating with specialists, faculty, or other health professional students (i.e., dentistry)



This study was limited by:

- Generally low number of participants in both surveyed groups
- Some voices/viewpoints may not be represented
- Risk of social desirability and selection biases

Introduction and Goals

- Low-income populations and the elderly are at-risk for low health literacy and poor health outcomes.
- SET Ministry (and later Lutheran Social Services), Highland Gardens (HG) public housing apartments, and the Medical College of Wisconsin (MCW) have partnered since 2010 to:
 - Improve health literacy among mostly elderly residents of public housing
 - Educate diverse populations to make informed health decisions
 - Provide community engaged scholarship opportunities for medical students
- MCW students plan and lead monthly presentations on health topics selected by the HG residents.

Discussion

For Highland Gardens Residents:

- The sessions seem to have mental, social, and emotional benefits beyond acquiring health information.
- The program provides a safe space where members from marginalized communities can interface with individuals in healthcare

For Medical Student Leaders:

- The program allows students to finesse clinically-applicable skills while fostering understanding, appreciation, advocacy, and admiration for at-risk communities.

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Implementing a Medical Student Community Engagement Summer Immersion Program

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BACKGROUND

In order to provide an opportunity for medical students to learn about community engagement (CE) and community engaged research (CEnR), the MCW Office of Community Engagement (OCE), in collaboration with the Medical Student Summer Research Program (MSSRP), offered a Medical Student Community Engagement Summer Immersion Program. Due to the COVID-19 pandemic, the program was virtual.

Understanding CE and CEnR is important to address social determinants of health (SDOH) and resulting health disparities [1]. Medical professionals are more likely to meet the challenges of societal issues when they understand CE [2]. Thus, it is critical that medical education is infused with CE in order to understand SDOH and address health disparities.

METHODS

A virtual immersion program was developed and led by the OCE.

- MCW second year medical students (M2) who participated in MSSRP attended a required didactic session: "Community Engagement: A key component of medical education."
- MCW MSSRP students & medical students from University of Nebraska Medical Center (UNMC) were invited to submit applications for a 3-session immersion program.
- Application questions focused on CE interest and experience; prior CE experience was not required.
- Immersion program sessions focused on principles of CE & CEnR. MCW faculty & community partners co-led each session. Post-session evaluations asked participants to provide feedback about the session, their learning, the speakers, and further interest.

Overall, I thought that this program was great for establishing a theoretical framework for Community Engagement. I thought the guest speakers from outside organizations & the small groups were especially useful. In terms of improvement, more sessions would have been nice, along with more small group discussions.

More time for discussion! I always feel like our small group has so much to say/ share with one another and I love hearing everyone's perspectives and I feel like there's not enough time for everyone to fully contribute if they wanted.

SESSION 1

Equitable Power and Responsibility

SESSION 2

Strong Community-Academic Partnership & Capacity Building

SESSION 3

Effective Dissemination Plan

This was an amazing experience! I learned a lot and it introduced me to a new side of medicine that I had not thought much about before! It was very interesting to learn about community engagement at the same time I was doing my research this summer.

RESULTS

- 75% (n=153) of all M2 students at MCW participated in MSSRP & the CE didactic session
- 30 students applied to & participated in immersion program: 13 from MCW & 17 from UNMC
- Survey response rates varied: Session 1 (67%), Session 2 (33%), Session 3 (47%)
- At least 90% of respondents strongly or somewhat agreed that each session was worthwhile
- 100% of respondents strongly or somewhat agreed they learned something they will use in their practice/profession
- 40% of immersion participants expressed interest in CE journal club

CONCLUSION

It is important to offer medical students an opportunity to learn about CE and to engage with other medical students, faculty, and community partners around their interest.

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Tiered Mentoring At JMAC: Evaluation of a Medical Student-Led Health Careers Outreach Program

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Background

- African Americans comprise approximately 13% of the US population, but comprise only 7% of recent medical school graduates and 4% of physicians.¹
- Racial and ethnic concordance of physicians and patients may reduce health disparities among underrepresented groups.²
- Pipeline programs target underrepresented youth and promote their interests in healthcare fields through mentorship and creating an environment of social support.³

Purpose: Academic Year 2019 - 2020

- To increase high school students' knowledge of healthcare careers and postsecondary education requirements
- To increase high school students' participation in summer enrichment programs
- To increase medical students' cultural awareness and abilities in intercultural communication

Community Partners

- Milwaukee Area Health Education Center's Youth Health Service Corps (YHSC)** engages high school students interested in pursuing health careers through instruction and field activities.
- James Madison Academic Campus (JMAC)** is a Milwaukee public high school predominately serving African Americans.
- The Urban and Community Health Pathway** at MCW began a partnership with YHSC at JMAC in 2010 and has continued through successive classes of YHSC participants and MCW student mentors.



Methods



- Participants/Recruitment for 2019-2020:** 15 JMAC sophomore through senior students enrolled in YHSC; 3-5 MCW medical student leaders/volunteers.
- Intervention:** Hour-long, healthcare-focused monthly sessions were explored based on students' interests. Students were guided and supported by the MCW leaders.
- Service learning:** New partnership with Milwaukee Firehouse to document Automated External Defibrillator (AED) locations
- Evaluation:** Session surveys by the JMAC students on session satisfaction/learning; reflective observation evaluations by the MCW leaders. YHSC pre- and post-surveys.

Discussion

- Students reported high satisfaction and learning from the sessions.
- Sessions that allowed students to be divided into smaller groups and that were hands on were more enjoyable to the YHSC participants; there was maximum engagement on field trips to MCW and the Milwaukee Firehouse/Cadet School.
- Challenges faced:**
 - Limited access to technology for research, summer applications, etc.
 - Creating an intimate environment with limited MCW volunteers
 - COVID 19 school closure prevented distribution of YHSC post-survey and completion of program
 - Loss of communication with teachers & YHSC participants during COVID 19



Results

Planned Topic	Attendance	Mean Satisfaction (1=low; 5=high)	Mean Learning (1=low; 5=high)
Career Planning	15	3.73	4.6
Firehouse/Cadet School Field Trip	12	4.5	4.3
Social Determinants & Maternal Health	9	4.22	4.33
Intro to AED Project/ Summer Programs	6	4.83	4.67
Trauma Bay Tour*	-	-	-
AED Project F/U*	-	-	-
Celebration*	-	-	-

*Sessions were not completed due to the COVID 19 pandemic

Future Directions

- Continue field trips to MCW and other health-related facilities.
- Earlier implementation of a service learning project.
- Implement methods to maintain participant engagement throughout the year and to build more one-on-one mentoring.
- Engage new cohort of medical students to maintain program.
- Collaborate with JMAC to implement virtual program if schools remain closed

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