# Table of Contents

## Judges

- Pilar Guerrero, MD
- Ricardo Correa, MD
- Maria Garcia MD, MPH, FACP
- Jane Binger, EdD
- Minerva Campos, MD, MPH

## Student

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapting Screening, Brief Intervention and Referral to Treatment (SBIRT) for Moderate Risk Drug Use with FQHC primary care clinics in Los Angeles during the COVID-19 pandemic</td>
<td>3-4</td>
</tr>
<tr>
<td>An Evaluation of the Clinical Comunitaria Esperanza Patient Population within the Eastern Virginia Medical School Free, Student-Run Dermatology Clinic</td>
<td>5</td>
</tr>
<tr>
<td>Caffeine Metabolite Index Significantly Elevated in Mexican Americans and Other Hispanics Compared to Non-Hispanic Whites in NHANES 2009-2010</td>
<td>6-7</td>
</tr>
<tr>
<td>Doctor for a Day Conference: A Sustainable and Scalable Model for Inspiring Diversity in Medicine</td>
<td>8</td>
</tr>
<tr>
<td>Effectiveness of Mental Health Literacy and Stigma Interventions for Latino/a Adults in the United States: A Systematic Review</td>
<td>9</td>
</tr>
<tr>
<td>Evaluation of a DPP Implementation in a Student-Run Free Clinic Setting</td>
<td>10</td>
</tr>
<tr>
<td>Factors influencing high rates of Cesarean section in the Dominican Republic</td>
<td>11</td>
</tr>
<tr>
<td>Hispanic Resident Diversity Trends in Surgical Specialties: A Study At A Single Academic Medical Institution and Comparison with National Trends</td>
<td>12</td>
</tr>
<tr>
<td>Incorporating of a Medical Interpreter-Led Limited English Proficiency Training Session into the Undergraduate Medical Education Curriculum</td>
<td>13</td>
</tr>
<tr>
<td>Reducing costs incurred to the healthcare system by offering free, high quality bilingual healthcare to uninsured residents of Hampton Roads, VA through La Clinica Comunitaria Esperanza</td>
<td>14</td>
</tr>
<tr>
<td>Hispanic Resident Diversity Trends in Surgical Specialties: A Study At A Single Academic Medical Institution and Comparison with National Trends</td>
<td>15-16</td>
</tr>
<tr>
<td>Shared Medical Visits to Improve Diabetes Management Among Hispanics in South Florida</td>
<td>17</td>
</tr>
<tr>
<td>Uncommon consequences of SARS-CoV-2 on the nervous system: A Case Report</td>
<td>18</td>
</tr>
<tr>
<td>Use of Published AAMC Data as a Readily Accessible Indicator of Progress in Medical School Recruitment of Underrepresented Minorities</td>
<td>19</td>
</tr>
</tbody>
</table>
# Table of Contents

## Professional

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A cross-sectional analysis of ethnic and language difference in Food Insecurity among Emergency Department patients</td>
<td>20</td>
</tr>
<tr>
<td>A Household-centered Care Approach for Pediatric Patients with Asthma, Pre-diabetes, Diabetes, and/or Obesity</td>
<td>21</td>
</tr>
<tr>
<td>A National Needs Assessment of Males with SLE: Assessing Medical, Psychosocial, Support &amp; Coping Needs</td>
<td>22</td>
</tr>
<tr>
<td>Addressing Emergency Room Overutilization with an Innovative Household Centered Care Approach</td>
<td>23</td>
</tr>
<tr>
<td>An Evaluation of the Clinical Comunitaria Esperanza Patient Population within the Eastern Virginia Medical School Free, Student-Run Dermatology Clinic</td>
<td>24</td>
</tr>
<tr>
<td>Adult-onset Still's Disease in Young, Hispanic woman - What to do to advocate for your patient’s health</td>
<td>25</td>
</tr>
<tr>
<td>An Obesity Prevention Intervention for Latino Families</td>
<td>26</td>
</tr>
<tr>
<td>Arroz Moro vs. Brown Rice: Evaluating the Integration of Cultural Competency, Culinary, and Nutritional Medical Interventions</td>
<td>27</td>
</tr>
<tr>
<td>Assessing Opportunities and Challenges of E-Consult at a FQHC</td>
<td>28</td>
</tr>
<tr>
<td>Assessing participants’ satisfaction with Illinois Unidos’s efforts to combat covid-19</td>
<td>29</td>
</tr>
<tr>
<td>Characteristics of an early cohort of COVID positive patients at an Urban Emergency Department</td>
<td>30</td>
</tr>
<tr>
<td>Charles R. Drew University and AltaMed Health Services: A Unique University and FQHC Collaboration to Implement a Health Careers Opportunity Program (HCOP) to Train Minority Students for Future Careers as Healthcare Providers</td>
<td>31</td>
</tr>
<tr>
<td>Direct Primary Care for the Uninsured</td>
<td>32-33</td>
</tr>
<tr>
<td>Doctor-patient relationships and discrimination in everyday life of Latino patients</td>
<td>34</td>
</tr>
<tr>
<td>Engaging People Experiencing Homelessness in Primary Care</td>
<td>35</td>
</tr>
<tr>
<td>Evaluation of a Bilingual Cultural Hispanic/Latinx Workshop About Diabetes for Pre-health and Health Professions Students</td>
<td>36</td>
</tr>
<tr>
<td>Examining relationships among physical activity, social health, and socioeconomic status among pregnant women</td>
<td>37</td>
</tr>
<tr>
<td>Health and Health Services among Hispanic Construction Workers, 2014-2018</td>
<td>38-39</td>
</tr>
<tr>
<td>Influenza Vaccine Uptake among Underserved Latinx Middle-Aged and Older Adults in South Los Angeles</td>
<td>40</td>
</tr>
<tr>
<td>Lessons, recommendations and strategies from rural communities and health departments regarding the distribution of Naloxone to combat the opioid epidemic</td>
<td>41</td>
</tr>
<tr>
<td>Modulating Early Life Microbiome through Dietary Intervention in Crohn’s Disease</td>
<td>42</td>
</tr>
<tr>
<td>Provision of Non-English Language Services in U.S. Mental Health Facilities</td>
<td>43</td>
</tr>
<tr>
<td>Psychoeducational Intervention for Spanish-speaking Patients</td>
<td>44</td>
</tr>
<tr>
<td>Safe and Effective Transitions of Care via a multifaceted coordination, planning and handoff</td>
<td>45</td>
</tr>
<tr>
<td>Socio-economic Inequities in Parental Awareness and Access to Meningococcal Serogroup B Vaccines</td>
<td>46</td>
</tr>
<tr>
<td>Sports Medicine at AltaMed (FQHC): Decreasing the number of referrals to orthopedics by utilizing in-house primary care sports medicine</td>
<td>47</td>
</tr>
<tr>
<td>Successful Recruitment Strategies during COVID-19 Among Underserved Hispanics/Latinxs with Type 2 Diabetes</td>
<td>48</td>
</tr>
<tr>
<td>The Success of Appreciative Inquiry to Engage all Team Members In Improving High Blood Pressure for At-Risk Hispanic/Latino adults in the Primary Care Setting</td>
<td>49</td>
</tr>
<tr>
<td>Socio-economic Inequities in Parental Awareness and Access to Meningococcal Serogroup B Vaccines</td>
<td>50-51</td>
</tr>
<tr>
<td>Utilization of Interpreter Services on a General Medicine Ward Service: A Multi-Modal, Iterative, Quality Improvement Projects</td>
<td>52</td>
</tr>
<tr>
<td>Validation of a Spanish Version of the Prolapse and Incontinence Knowledge Questionnaire</td>
<td>53</td>
</tr>
<tr>
<td>Virtual Clinical Training During COVID-19: Evaluating An Online Patient Simulation Curriculum For 2nd Year Medical Students</td>
<td>54</td>
</tr>
</tbody>
</table>
Adapting Screening, Brief Intervention and Referral to Treatment (SBIRT) for Moderate Risk Drug Use with FQHC primary care clinics in Los Angeles during the COVID-19 pandemic

Natalie Martinez, Quynh Vo, Efren Aguilar, BS, Stephanie Sumstine, MPH, Whitney Akabike, MSPH, Dallas Swendeman, PhD, MPP, Lillian Gelberg, MD, MSPH

University of California, Los Angeles

Purpose

COVID-19 has severely impacted in-person screening and enrollment for interventions and clinical research trials due to reduced in-person clinic capacities and the rapid increase of telehealth services. By leveraging mobile-web platforms and discussing barriers and facilitators of telecommunication technologies with federally qualified health center (FQHC) clinic leaders, we have developed a remote method of conducting pre-visit substance use screening for low-income, Spanish and English speaking, primary care patients with upcoming primary care appointments that will be tested for future implementation.

Methodology

The Quit Using Drugs Intervention Trial (QUIT) and the QUIT BINAT study (conduct in Tijuana and East Los Angeles), had depended on in-person patient engagement in clinic waiting rooms to conduct screening, enrollment, urine drug screening (UDS). To adapt to telehealth visits and shorter in-person waiting room times and densities, a mobile-website application was developed to:

1) deliver patient self-administered screening questions
2) conduct study enrollment, consent, randomization, and research assessments,
3) share screener results and brief advice script with the Primary Care Provider (PCP)
4) provide patients with a health education booklet, opioid overdose prevention pamphlet, and community resource guide
5) conduct weekly patient self-monitoring surveys
6) deliver automated feedback and support messages to patients.

In addition, the QUIT-Mobile team engaged in weekly meetings with our FQHC partners to discuss barriers, facilitators, and processes for adopting and implementing the program with emphasis on telehealth processes.
Results

FQHC clinic partners have implemented methods to reduce patient waiting room times and density; therefore, the QUIT-Mobile study needed to establish pre-visit remote screening and enrollment procedures regardless of COVID-19 barriers.

Barriers to implementation include:

1) processes for sharing patient appointment and contact information, addressed by research assistants (RAs) becoming clinic volunteer staff.

2) concerns about mobile technology access and literacy for some low-income patients requiring RAs to monitor screening completion, follow-up for adherence, and to provide technical support.

3) methods of communicating screening results to PCPs met by adopting a multi-channel approach (email, text, phone, chart notes, care team private message portal) per care team preferences.

Additionally, unique links were developed for each participant that avoids the engagement barrier of creating a login account, while still protecting private patient information. A fully integrated, multi-media, mobile-web application for screening, enrollment, consent, intervention, follow-up, and case management has been developed in Spanish and English.

Conclusion

- The COVID-19 pandemic has catalyzed an unpredictable disruption in healthcare resulting in the rapid expansion of telehealth.
- The degree to which telehealth will be sustained in the post-pandemic era is uncertain, but it will likely be much greater than pre-pandemic.
- There has been an estimated 8,729% (>80-fold) increase in the utilization of video for clinic visits during the COVID-19 pandemic and high levels of patient satisfaction with the video visits (Ramaswamy et al., 2020).
- The future of healthcare access will be increasingly fueled by technological innovations, including telehealth, remote screening and monitoring.
- This will require an improvement in patients’ health technology literacy which will be vital to assure equitable access for all patients.

Acknowledgements

This research was supported by the National Institute on Drug Abuse (NIDA; 5R01DA047386) and the Beneventures Foundation.
AN EVALUATION OF THE CLÍNICA COMUNITARIA ESPERANZA PATIENT POPULATION WITHIN THE EASTERN VIRGINIA MEDICAL SCHOOL FREE, STUDENT-RUN DERMATOLOGY CLINIC

Taylor Dyson, MS3, M.S., Stafford Brown, MS3, M.S., Alexandra Leader, MD, MPH, Edward Prodanovic, MD

Departments of Global Health and Dermatology
Eastern Virginia Medical School (EVMS), Norfolk, VA

Conclusions

In 2015, the Health Outreach Partnership of Eastern Virginia Medical School Students (HOPES) Clinic established its Dermatology Clinic to meet the dermatological needs of the uninsured population of Hampton Roads, Virginia. In 2016, EVMS medical students established Clínica Comunitaria Esperanza within the HOPES Clinic system to provide healthcare for uninsured, Spanish-speaking residents of Hampton Roads, Virginia. This project was conducted to evaluate clinical diagnoses of Spanish-speaking patients at the HOPES Dermatology Clinic and to identify areas of improvement for the care of Spanish-speaking patients in the HOPES Dermatology Clinic.

Patients
- 17 of 140 patients were Spanish-speaking.

Demographics
- 13 to 57 years of age.
- 12 of 17 patients were female.
- Race was not recorded for any of the 17 patients.
- 52.9% of the patient population listed Norfolk, Virginia as city of residence.
- 100% of patients had city of residence recorded.

A chart review of 140 HOPES Dermatology Clinic patients that were seen in clinic from January 15, 2015 to November 21, 2019 was conducted using the PracticeFusion electronic medical record. The Spanish-speaking patients were given the designation of “ESP” within PracticeFusion. The following variables were recorded in a password-protected Excel spreadsheet:

- Age, sex, race, city of residence
- Vitals
- Reason for first visit, date of most recent visit
- Diagnoses, medications, services
- No. of clinic visits, cancellations, no-shows

Results

Diagnoses
- 25 distinct diagnoses were made.
- Most common diagnosis was keratosis pilaris.

Vitals
- 3 of 17 patients never had their vitals measured over the course of multiple visits.
- 6 of 17 patients did not have their vitals measured during their first visit to the HOPES Dermatology Clinic.

Services
- Most common service provided was cryosurgery.

From January 15, 2015 to November 21, 2019, the HOPES Dermatology Clinic provided care to 140 uninsured patients in Hampton Roads, Virginia, including 17 predominantly Spanish-speaking patients. The clinic is effective in diagnosing and treating its Spanish-speaking patients, which is reiterated by the diverse diagnoses, medications, and services provided to the patients of this population. Areas of improvement for this clinic lies within its operations. The need to record each patient’s demographics, especially race, was greatly emphasized in this study. We know that race correlates with health care outcomes and being able to identify the more vulnerable members of our patient community will allow us to work to overcome these structural barriers and social determinants of health. Additionally, the need to measure and record each patient's vital signs was greatly emphasized in this study. Such measurements are not as pertinent in most dermatology clinics, but in a clinic such as this, it is important to provide each patient with an all-encompassing exam. In conclusion, this study provided greater detail into the Spanish-speaking patient population this clinic serves.

Acknowledgements

We would like to thank the EVMS Department of Global Health, EVMS Department of Dermatology, and the EVMS HOPES Clinic for providing the opportunity for us to conduct this quality improvement project. We would also like to thank the EVMS faculty and student clinic volunteers who dedicate their time to improving the health of the uninsured population of Hampton Roads, Virginia. We would also like to give special thanks to our community members who have trusted us with their health.

Methodology

Introduction and Purpose

In 2015, the Health Outreach Partnership of Eastern Virginia Medical School Students (HOPES) Clinic established its Dermatology Clinic to meet the dermatological needs of the uninsured population of Hampton Roads, Virginia. In 2016, EVMS medical students established Clínica Comunitaria Esperanza within the HOPES Clinic system to provide healthcare for uninsured, Spanish-speaking residents of Hampton Roads, Virginia. This project was conducted to evaluate clinical diagnoses of Spanish-speaking patients at the HOPES Dermatology Clinic and to identify areas of improvement for the care of Spanish-speaking patients in the HOPES Dermatology Clinic.

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- Age, sex, race, city of residence
- Vitals
- Reason for first visit, date of most recent visit
- Diagnoses, medications, services
- No. of clinic visits, cancellations, no-shows

Contact Email: DysonTM@evms.edu, BrownSG@evms.edu
Purpose: To examine whether caffeine metabolism, using a proxy for hepatic CYP1A2 activity, among Mexican American, Other Hispanic, and Black participants differs from Non-Hispanic white individuals.

Methodology: NHANES 2009-2010 data is the first nationally representative sample that measured urine caffeine metabolite concentrations. A total of 14 caffeine metabolites were measured in the NHANES study. We selected the following five metabolites for our analyses: theophylline, paraxanthine, theobromine, 1-methyluric acid, and 5-acetylamino-6-amino-3-methyluracil, since theophylline, paraxanthine, and theobromine are the main three upstream metabolites, and 1-methyluric acid and URXAMU are the main downstream metabolites that have been shown strongly associated with caffeine clearance. A caffeine metabolism index was developed to represent the ratio of creatinine-adjusted paraxanthine (urine) relative to milligrams of caffeine consumed, which was ascertained through 24-hour recall. Linear regression was performed to examine the association between the log-transformed caffeine metabolism index with racial ethnic status, after adjustment for body mass index, physical activity, liver function, renal function, serum cotinine, and other chronic conditions, such as cardiovascular disease.

Results: We selected those who have measurements of caffeine metabolites in urine samples. Out of 10,537 participants, a total of 1470 people were included, where 51.77% were Non-Hispanic white, 14.56% Non-Hispanic Black, 10.40% Mexican American, 10.41% Other Hispanic, and 4.63% Other Race/Multi-Racial. Mexican American and Other Hispanic participants were on average slightly younger (<48 years), were more likely to be current smokers (<100 lifetime cigarettes), had lower levels of serum cotinine (smoking biomarker), had higher body mass index (more likely to be overweight), were less likely to fast before their visit, healthier eGFR, and were less likely to engage in physical activity than other racial ethnic groups (p < 0.05, Table 1). Other Hispanic and Black participants were more likely to have diabetes than other groups (p < 0.05, Table 1). Black participants were more likely to be older, were more likely to be current smokers, had higher serum cotinine levels, had higher body mass index, were more likely to be hypertensive, spent less time fasting prior to their visit, had worse eGFR, and more frequently engaged in no physical activity (p < 0.05, Table 1). Racial-ethnic status was significantly associated with half of the metabolism indices after adjustment for all other variables (p < 0.01, Table 1). Mexican Americans had ~0.55 umol/mg^-2 higher theophylline and paraxanthine indices (p < 0.0001, Table 2) and Other Hispanics had ~0.60 umol/mg^-2 higher indices (p < 0.0001, Table 2) on average as compared to Non-Hispanic whites after multivariable adjustment. Black participants had lower caffeine metabolite indices than Non-Hispanic whites consistently across all three upstream indices, yet these associations were not significant at the 0.05 level. Alternatively, Black participants had ~0.20 and ~0.72 umol/mg^-2 higher 1-methyluric acid and 5-acetylamino-6-amino-3-methyluracil indices (p < 0.05, Table 2), which are downstream indices, compared to non-Hispanic whites. Conclusion: We showed racial-ethnic disparities in caffeine metabolism in a large cross-sectional study. While caffeine is generally understood to be a safe compound, observed racial ethnic differences in caffeine metabolism may explain differences in interindividual bioavailability. There is sufficient evidence to make that recommendation that NHANES should continue collection of this metric, which had been discontinued after 2010. To advise health, the next step is to use existing longitudinal data to study caffeine metabolism index and its association with other chronic conditions, such as cardiovascular disease.

Table 1. Demographic characteristics in selected 2009–2010 NHANES participants (n = 1470)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mexican American</th>
<th>Other Hispanic</th>
<th>Non-Hispanic Black</th>
<th>Other / Multi-Racial</th>
<th>White</th>
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<tr>
<td>Gender (%)</td>
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<td></td>
<td></td>
<td></td>
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<td>0.31</td>
</tr>
<tr>
<td>Female</td>
<td>48.45</td>
<td>56.42</td>
<td>55.27</td>
<td>58.39</td>
<td>69.78</td>
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</tr>
<tr>
<td>Male</td>
<td>51.55</td>
<td>43.58</td>
<td>44.73</td>
<td>41.61</td>
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<tr>
<td>Age (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>18 to &lt;28</td>
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<td>18.17</td>
<td>15.45</td>
<td>16.99</td>
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<td>38 to &lt;48</td>
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<td>23.20</td>
<td>19.05</td>
<td>27.08</td>
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<tr>
<td>48 to &lt;58</td>
<td>14.44</td>
<td>18.97</td>
<td>25.08</td>
<td>14.41</td>
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<td>58 to &lt;68</td>
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<td>≥68</td>
<td>7.22</td>
<td>7.33</td>
<td>6.20</td>
<td>4.41</td>
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<tr>
<td>Smoker Status (%)</td>
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<tr>
<td>Never Smoker</td>
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<td>57.41</td>
<td>58.32</td>
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<tr>
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<td>Former Smoker</td>
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<td>21.25</td>
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<td>23.16</td>
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<td>Current Smoker</td>
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<td>14.12</td>
<td>29.13</td>
<td>18.52</td>
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<tr>
<td>Serum cotinine, mg/mL (%)</td>
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<td></td>
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<td>&lt;1.7 to 10</td>
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<td>8.66</td>
<td>0.94</td>
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<td>Smoking intensity, total lifetime cigarettes, (%)</td>
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<td>0</td>
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<td>23.89</td>
<td>46.48</td>
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<tr>
<td>0.5 to 100,000</td>
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<td>18.21</td>
<td>27.39</td>
<td>21.92</td>
<td>18.13</td>
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<tr>
<td>Greater than 100,000</td>
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<td>19.71</td>
<td>40.06</td>
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<th>Body Mass Index, kg/m², (%)</th>
<th>≤18.5</th>
<th>18.5–25</th>
<th>25–30</th>
<th>≥30</th>
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<td>66.73</td>
<td>64.63</td>
<td>57.82</td>
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<tr>
<td>0.5 to 50,400</td>
<td>20.82</td>
<td>26.80</td>
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<th>Fasting Status, hours (%)</th>
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<th>Borderline</th>
<th>Yes</th>
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<tbody>
<tr>
<td>0</td>
<td>90.27</td>
<td>86.14</td>
<td>83.71</td>
</tr>
<tr>
<td>0.5 to 12</td>
<td>20.78</td>
<td>24.60</td>
<td>27.67</td>
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<tr>
<td>Greater than 12</td>
<td>27.13</td>
<td>21.90</td>
<td>19.80</td>
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<th>Liver Condition (%)</th>
<th>No Liver Condition</th>
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<th>1.32</th>
<th>1.23</th>
<th>0.27</th>
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<td>Form Total</td>
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<td>95.06</td>
<td>98.43</td>
<td>96.66</td>
<td>97.92</td>
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</tr>
<tr>
<td>Current</td>
<td>1.93</td>
<td>3.61</td>
<td>0.33</td>
<td>3.07</td>
<td>1.54</td>
<td></td>
</tr>
<tr>
<td>Estimated Glomerular Filtration Rate, ml/min/1.73 m² (%)</td>
<td>85.54</td>
<td>81.89</td>
<td>74.38</td>
<td>77.13</td>
<td>60.59</td>
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<tr>
<td>Less than 60</td>
<td>12.60</td>
<td>14.86</td>
<td>21.32</td>
<td>21.08</td>
<td>34.26</td>
<td></td>
</tr>
<tr>
<td>Greater than 90</td>
<td>1.86</td>
<td>3.24</td>
<td>4.30</td>
<td>1.80</td>
<td>5.15</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical activity, metabolic equivalent-hours/week (%)</th>
<th>0</th>
<th>0–4</th>
<th>4–40</th>
<th>40+</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>27.69</td>
<td>25.93</td>
<td>32.42</td>
<td>19.62</td>
</tr>
<tr>
<td>0.5 to 50,400</td>
<td>33.42</td>
<td>30.66</td>
<td>27.56</td>
<td>32.40</td>
</tr>
<tr>
<td>Greater than 50,400</td>
<td>32.44</td>
<td>33.95</td>
<td>33.44</td>
<td>36.34</td>
</tr>
</tbody>
</table>

Data in each column are presented as the total number (%). NHANES: National Health and Nutrition Examination Survey; cig: Cigarettes.
Doctor for a Day Conference: A Sustainable and Scalable Model for Inspiring Diversity in Medicine

Julia Xia (MD), Cricket Gullickson (BA), Seema Mustafa (BA), Neal Sanjay Shukla (BS), Mary Helen O’Connor (PhD), Omar Lattouf (MD, PhD), Stacy Higgins (MD), Heval Kelli (MD).

Introduction

Minority and low-income students are historically underrepresented in medical schools, and face additional barriers to entering the medical profession including lack of prior healthcare exposure, sparse mentorship, and inadequate support and advising services.

The worsening Latino physician shortage requires action on the national and local level to increase diversity in medicine.

Methods

To increase accessibility to the health profession and mentors in the medical field, we piloted a Doctor for a Day conference, a 4 hour event organized by a small committee of medical students supervised by a physician.

The event consisted of:
1. Physician speakers
2. Medical student panelists
3. An interactive medical case solved in small groups
4. A CPR simulation session with medical mannequins
5. Rotating pathology tables with organ specimens
6. A networking lunch with over 40 physicians, residents, and medical students.

All attendees were asked to fill out an online survey to provide demographic information and feedback on the conference.

National Physician Rate per 100,000

Sanchez, 2015

Caucasian  |  Latino
--- | ---
1980  |  2010

Summary and Conclusions

1. We were able to create an easily replicable and sustainable model for exposing low-income and minority students to a career in medicine that is low-cost, simple, reproducible, and scalable.
2. Our program was successful in improving knowledge about the pathway to a medical profession and increasing the confidence and motivation of 1st generation students in their pursuit of a career in medicine.
3. This annual program has the potential to increase the number of Latino individuals entering the healthcare workforce, which could greatly improve Hispanic health by providing greater representation of the Latino community in medicine.

Student Demographics 2019

<table>
<thead>
<tr>
<th>Total Number of Students</th>
<th>Gender</th>
<th>Level of Education</th>
<th>Ethnicity</th>
<th>English as 1st Language</th>
<th>Highest Level of Parent Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=82</td>
<td></td>
<td>Male: 17% (14)</td>
<td>High School: 13% (11)</td>
<td>Yes: 77% (63)</td>
<td>No formal education: 9% (7)</td>
</tr>
<tr>
<td></td>
<td>Female: 83% (68)</td>
<td>College Student: 87% (73)</td>
<td>Black or African American: 45% (37)</td>
<td>No: 22% (18)</td>
<td>High School: 20% (16)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asian: 20% (16)</td>
<td>Hispanic or Latino: 13% (11)</td>
<td>Yes: 77% (63)</td>
<td>College Degree: 32% (26)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Black or African American: 45% (37)</td>
<td>Middle Eastern: 4% (3)</td>
<td>No: 22% (18)</td>
<td>Medical Degree: 7% (6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hispanic or Latino: 13% (11)</td>
<td>Mixed Race: 2% (2)</td>
<td>Yes: 77% (63)</td>
<td>Other Graduate Degree: 33% (27)</td>
</tr>
</tbody>
</table>

In the post conference survey, 100% of students reported:

1. An interest in pursuing the medical profession.
2. The conference increased their confidence and motivation in pursuing a career in medicine.
3. The program was helpful in understanding the process of becoming a doctor.
4. They gained experience networking with medical professionals.
Effectiveness of Mental Health Literacy and Stigma Interventions for Latino/a Adults in the United States: A Systematic Review

Nancy Jacquelyn Pérez-Flores, MSW & Leopoldo J. Cabassa, MSW, PhD
Brown School of Social Work, Washington University in St. Louis

### Background

- Latino/as in the United States (U.S.) represent 18.3% of the population and are projected to increase to 28% by 2060.
- Despite the remarkable growth of the Latino/as population in the U.S., their mental health care needs are still not being met.
- No systematic literature review currently exists of interventions developed to reduce mental health stigma and increase mental health literacy among the Latino/a community.

### Research Goals

1. Examine the methodological rigor of these intervention studies.
2. Describe the mental health literacy and stigma interventions developed for Latino/as in the U.S.
3. Summarize the outcomes of these studies focusing on mental health literacy and stigma outcomes.

### Methods

- Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) informed the systematic literature review.
- The Methodological Quality Rating Scale (MQRS) was used to assessed the rigor of each study.
- Peer-reviewed journals articles were searched in multiple databases and a manual search.
- Studies were included if they met the following criteria:
  - Published in English or Spanish in a peer-reviewed journal between 2000 and February 2020 and conducted in the U.S.
  - Described a mental health literacy and/or stigma intervention delivered to Latino/as adults 18 years of age or older.
  - Evaluated the impact of the intervention on mental health literacy and stigma outcomes for Latino/as.

### Results

- Our findings indicate that few interventions have been developed and tested to address these determinants of mental health care disparities.
- Seven articles met the inclusion criteria for this review.
- The total MQRS scores for the identified articles ranged from 5 to 10, with a median of 8.
- Three articles used a randomized control group design and four articles utilized single group pre/post designs.
- Most studies were small pilot studies with small samples and short follow-up periods of less than a month.
- Studies included in this review were conducted in California, Texas and North Carolina and most of these samples were Latinas of Mexican descent.
- The interventions tended to focus on depression and psychosis and incorporated a series of cultural and linguistic elements (e.g., soap opera narratives in both English and Spanish) to make them relevant, salient, and culturally appropriate to Latino/a communities.
- Our review of these intervention studies indicated that the existing interventions focused on depression and psychosis, and showed mixed results for reducing stigma.

### Strengths & Limitations

- To minimize publication biases, we followed the PRISMA guidelines
  - Searched 10 databases (e.g., APA PsycINFO, Applied Science & Technology Full Text, CINAHL Plus)
  - Included one manual search
  - Used an array of keywords
  - Used independent raters
  - Established measure to rate the methodological quality of eligible studies.
  - The small number studies included in our review prevented us from conducting a more formal meta-analysis and from identifying which specific intervention elements were most effective for specific outcomes and groups.
  - This limited number of published intervention studies could be a function of the lack of private foundations) in this important area of research investment by funders (e.g., NIH, domestic, and empirically-supported, are needed to achieve mental health equity for all Latino/as.

### Conclusion

- Findings highlight a significant deficit of mental health literacy and stigma interventions for the Latino/a population.
- Future research should continue investigating and developing more evidence-based anti-stigma and mental health interventions.
- Interventions that focus on improving mental health literacy and reducing stigma that are also culturally-grounded, theoretically-sound, and empirically-supported, are needed to achieve mental health equity for all Latino/as.

Contact Information

Nancy Jacquelyn Pérez-Flores  
[Email: nancyj@wustl.edu]  
[Twitter: @nancyjperc26]

Note: This work is supported by the National Institute of Mental Health (T32MH019960).
A student-run DPP can offer a reduced cost strategy to bring a clinically effective program to underserved communities and impact the professional education of future healthcare professionals.

**RESULTS:**

- A total of 17 participants attended 16 weekly sessions (6 in-person and 10 Zoom sessions).
- Each participant attended 9.4 sessions (SD 2.1). There were 9.2 participants per in-person and 10.5 per Zoom session.
- The median weight loss achieved by participants was 5.9% of their total body weight. Weight loss was independent of age, sex, pre-program BMI, and English proficiency.
- 13 of the 17 participants (76.5%) achieved the 5% weight loss goal.
- Facilitators of successful adoption cited by students included: financial funding, readily available patient pool, and faculty commitment and guidance.
- 100% (n=10) of students leaders believed that the program was successful and should continue for this patient population.

**METHODS**

1. Uninsured, Spanish-speaking participants and their invited guests were recruited from Vanderbilt University’s student-run clinic.
2. Weekly DPP sessions were conducted using the CDC’s Prevent T2 curriculum in Spanish, delivered in-person for 6 weeks and virtually for the remaining 10 due to the COVID-19 pandemic.
3. Participant attendance and weight data were collected throughout the program.
4. Pre- and post-program surveys were administered to student leadership with questions about acceptability, adoption, and appropriateness of the program implementation.

**REFERENCES/ACKNOWLEDGEMENTS:**

The Diabetes Prevention Program (DPP) at Shade Tree Clinic was funded using a Vanderbilt Institute of Clinical and Translational Research, VR53470 Grant Award. We would also like to thank Dr. Carolyn Audet at the VUMC Department of Health Policy for her expertise and guidance in developing this project.


The Dominican Republic (DR) is reported to have one of the world’s highest rates of cesarean section (CS) with an estimated 58.9% of live births occurring through surgical procedure (1). Between the years 2002 and 2016, the country’s CS rate has nearly doubled despite inappropriate CS use contributing to increased risk of maternal and perinatal mortality in low-income and middle-income countries (UMI) (2,3). Several hypotheses for the nation’s overmedicalization of childbirth have been proposed based predominantly on anecdotal evidence. Resource limitations, overburdened public hospitals and, notably, patient preference are believed to be contributing factors. Though some research has been conducted on the implications of the OR health system on maternal health, there remains a paucity of clinical data on the role of medical and individual determinants in the DR’s high rate of cesarean sections (4,5).

### METHODS

**Adult women (age ≥ 18 years) who had given birth by cesarean section at a public hospital in Santo Domingo, Dominican Republic were invited to complete a Spanish-language version of the validated Cesarean Decision Survey (6), which they filled out within 14 days of their CS. Informed consent was obtained, permitting a thorough review of the participant’s obstetric history in the medical record. 105 women were recruited and completed the questionnaire, 4 were excluded from the final analysis due to survey incompletion or unavailable medical records. Descriptive and statistical analysis were performed using IBM SPSS Statistics Version 25.0.**

### OBJECTIVES

- Identify factors contributing to the rising CS rate in the DR
- Gain insight into women’s perceptions of their pregnancy and delivery by cesarean.

### BACKGROUND

<table>
<thead>
<tr>
<th>TABLE 1: PREVALENCE OF PRENATAL AND INTRAPARTUM COMPLICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary CS</strong> (N=38)</td>
</tr>
<tr>
<td><strong>Hypertensive Disorders of Pregnancy</strong></td>
</tr>
<tr>
<td>Pre-eclampsia, eclampsia</td>
</tr>
<tr>
<td><strong>Urinary tract infection</strong></td>
</tr>
<tr>
<td><strong>Anemia</strong></td>
</tr>
<tr>
<td><strong>Cardiomyopathy</strong></td>
</tr>
<tr>
<td><strong>Obesity</strong></td>
</tr>
<tr>
<td><strong>Morbid Obesity</strong></td>
</tr>
<tr>
<td><strong>Gestational Diabetes Mellitus</strong></td>
</tr>
<tr>
<td><strong>Fetal complication (Risk of fetal loss, distress, fetal wellbeing)</strong></td>
</tr>
<tr>
<td><strong>Uterine rupture</strong></td>
</tr>
<tr>
<td><strong>Other (Placental abnormalities, Hemorrhage, etc.)</strong></td>
</tr>
<tr>
<td><strong>Average number of comorbidities per participant</strong></td>
</tr>
<tr>
<td><strong>Percentage of participants with 1 or more comorbidity/complication</strong></td>
</tr>
</tbody>
</table>

### RESULTS

**Conclusions**

- Only 6 (5.9%) participants indicated that they had requested their CS.
- Review of medical record data indicated that 86% of participants had 1 or more prenatal comorbid condition or complication that increased their risk for CS.
- When asked to rank their top 3 reasons for having their current CS, the factors ranked most often by participants (excluding prior CS), were their doctor’s recommendation (n=43, 44.6%), an emergency (n=39, 38.6%), and safety of the baby (n=15, 14.3%).
- When asked to identify the top 3 sources of information useful in their decision-making about birth options, participants noted their doctor (n=84, 83.1%), family (n=41, 40.6%), and internet (n=38, 37.6%) as most important.

### STUDY IMPLICATIONS

Our findings suggest that:

1. There is a need for further research on cost-effective interventions to reduce prenatal complications and potentially the CS rate within an overburdened medical system.
2. There is a need to optimize patient-provider communication to address misconceptions about birthing options in a population where cesarean section is becoming the norm.

### Table 2:

| Risks to Mom | Risks to Baby | Type of Anesthesia | Duration of Procedure | Expectation in Operating Room | Expectation in Recovery Room | Pain Medication | Expectation for Recovery |
|-------------|--------------|--------------------|-----------------------|-------------------------------|-------------------------------|----------------|------------------------|--------------------------|
| All (N=101) |              |                    |                       |                               |                               |                |                        |                          |
| Primary Cesarean (N = 38) | 44.7% | 38.8% | 34.2% | 38.6% | 38.6% | 55.3% | 68.4% |                        |                          |
| Repeat Cesarean (N = 63) | 45.2% | 40.3% | 41.9% | 40.3% | 37.1% | 40.3% | 58.1% | 72.6% |                        |
Hispanic Resident Diversity Trends in Surgical Specialties: A Study At a Single Academic Medical Institution


Department of Surgery, Division of Plastic Surgery, Division of Trauma, Critical Care, and General Surgery, Division of Colon and Rectal Surgery

Mayo Clinic, Rochester, MN

Research Purpose

• To retrospectively determine Hispanic resident admission trends in surgical subspecialty training at our institution, and to compare data with national trends.

Methods

• Retrospective review of PGY1 demographic data for residents in plastic surgery, general surgery, orthopedics, ENT, urology, and neurosurgery between 2011-2018 from a self-reported applicant database at our institution.
• National data for residents in each specialty was extracted from annual reports published by the Accreditation Council of Graduate Medical Education (ACGME).
• Descriptive statistics were used to determine the percentage of Hispanic residents in each specialty.

Results

• Hispanic residents, overall, made up less than 10% of all residents in each surgical specialty between 2011-2018 at our institution and nationally.
• At our institution, Hispanic residents made up a larger percentage of all residents in plastic surgery (10%), general surgery (7%), and urology (8%) compared to nationally (5%, 5%, and 3%, respectively).
• Orthopedics showed comparable percentages of Hispanic residents (3% each) while ENT (6%, 3%) and neurosurgery (0%, 4%) showed a lower percentage of Hispanic residents at our institution.

References


Discussion

• There has been an increasing focus amongst governing bodies of U.S. medical education to increase racial and ethnic diversity amongst healthcare providers as part of a multifaceted approach to diminish health care disparities in the U.S.
• In a review by Abelson et al. (2017), while total number of medical students may have increased over the years, between 2005 to 2014, there was reported decline in graduating Hispanic medical students 37.4% respectively over the study period.
• At the other end of the surgical pipeline, it is recognized that diversity among academic surgical faculty lags behind other medical disciplines, despite initiatives and programs create to increased representation of underrepresented minorities among surgical trainees and faculty.
• It is possible that minorities may have an interest in surgery, but there may be more of an issue with exposure and positive reinforcement to pursue surgical careers.
• Local and national initiatives have been described in promoting diversity in surgery through mentorship programs. National conferences to promote diversity at medical student, resident and faculty levels continue to grow. Furthermore, there is a role to train selection committees responsible for trainee recruitment or career development in surgery. to recognize and highlight how unconscious bias can impact decision making and negatively impact diversity and inclusion efforts at all levels of the surgical pipeline.
Training Future Physicians to Work with Medical Interpreters (MIs) and Limited English Proficiency (LEP) Patients

Julia Schroer, MS, MBA\(^1\), Maria Cristina Marcos\(^1\), Joshua D. Madera, MS\(^1\), Joyce Rowan\(^2\)
1. Geisinger Commonwealth School of Medicine
2. Certified Healthcare Interpreter - Spanish

Purpose
Medical students at Geisinger Commonwealth School of Medicine were asked to complete a baseline assessment to determine readiness to interact with LEP patients and MIs in a clinical setting. In addition, explicit knowledge of MI best practices was assessed using a clinical scenario and free-text responses. Students attended a virtual training session led by a Certified Healthcare Interpreter that discussed the best practices in working with MIs and LEP patients. The seminar was developed to succinctly address key “do’s and don’ts” of working with MIs and LEP patients from an interprofessional perspective. Upon conclusion of the training session, attendees were asked to complete the same assessment to determine post-intervention readiness to interact with LEP patients and MIs.

Methodology
LEP patients frequently encounter cultural and language barriers in the U.S. health system. In 2017, only 29 of 147 LCME accredited medical schools offered a curriculum that taught students how to interact with MIs and/or LEP patients. To further encourage incorporation of cross-cultural and LEP training into the undergraduate medical education curriculum, we developed an educational seminar designed to prepare medical students to provide equitable care to a diverse and often disenfranchised patient population. We utilized baseline and post-intervention assessments to demonstrate the impact of the seminar on medical student knowledge and preparedness to work with MIs and LEP patients.

Results
Following the MI training session, students reported an increase in their preparedness (\(t = 2.33\)) and comfort (\(t = 2.52\)) in working with an MI, \(p < 0.05\). In addition, students also felt more prepared to identify when a MI is needed in a clinical setting (\(t = 2.36\), \(p < 0.05\)). Furthermore, student assessment of the provided clinical scenario demonstrated a significant increase in explicit knowledge of the best practices necessary when working with an MI (\(t = 2.20\), \(p < 0.05\)).

Conclusions
Our findings suggest that seminars led specifically by trained MIs and focused on the importance of best practices in working with MIs can significantly improve medical student level of comfort and preparedness to interact with LEP in the clinical setting. Moreover, our seminar can easily be implemented into existing clinical skills curricula to address this training gap in undergraduate medical education.

Acknowledgements
Our team would like to thank Mary Lawhon Triano, MSN, CRNP-C for her guidance and encouragement in executing this project.

References
1. Himmelstein, J., Wright, W., Wiederman, M. U.S. medical school curricula on working with medical interpreters and/or patients with limited English proficiency. Advances in Medical Education and Practice, 2018; 2018(9):729-733.
In 2016, medical debt was attributed to almost half of all U.S. bankruptcies with three in ten uninsured, nonelderly adults reporting still paying off at least one medical bill. Free clinics serve as one way for uninsured patients to access care without facing significant financial constraints or bankruptcy. La Clínica Comunitaria Esperanza (CCE) is a Spanish-speaking free clinic formed in August 2016 by Eastern Virginia Medical School (EVMS) students to serve the local uninsured, Hispanic population of Hampton Roads, Virginia. The clinic operates twice monthly to provide routine health maintenance, sick visits, and a range of laboratory services. This study quantifies the cost saved to the Hampton Roads health care system and its uninsured patients through services provided at CCE.

II. Appointments

- 173 patients served
- 90 initial appointments
- 83 follow-up appointments

Using appointment fee data from the Center for Medicare & Medicaid Services, it was determined that on average a new patient appointment costs approximately $76.71 out of pocket and a follow-up costs $51.46. This results in the following cost savings:

- $6,903.90 = $76.71 x 90 new appointments
- $4,271.18 = $51.46 x 83 follow-up appointments
- $11,175.08 = total appointment value

La Clínica Comunitaria Esperanza provides a significant cost savings to the local Hampton Roads Hispanic patient population and to the local health care system. By providing $38,445 in lab tests and $11,175 in appointments, CCE has provided a free care that totaled a value of $49,620 over 22 months. Since its inception, CCE has helped patients receive necessary care while avoiding significant financial constraints and/or bankruptcy. Furthermore, CCE has reduced the burden on the local healthcare system to treat patients that typically do not have the financial means to pay hospitals for care. As CCE, these patients receive consistent follow-up care in a Spanish-speaking, culturally competent clinic setting, which includes providing preventive care to reduce the number of hospital visits for complications. CCE not only provides a medical home for the local Hispanic population but a safety net to avoid financial constraints associated with obtaining healthcare.

References

SALIENT FACTORS AMONG HISPANIC PARENTS IN SOUTH FLORIDA RURAL COMMUNITIES FOR VACCINATING THEIR CHILDREN AGAINST HUMAN PAPILLOMAVIRUS

Presenter: Melanie Fernandez, B.A., University of Miami, fernandezmelanie18@yahoo.com

PURPOSE
Few studies have tried to understand the factors related to HPV vaccination among Hispanics living in rural communities in the United States (US). Nationally, HPV vaccination among Hispanics is suboptimal (26.1%) compared to the HealthyPeople 2030 goal of 80% and even more suboptimal in rural communities. This study aimed to determine the salient factors among Hispanic parents for vaccinating their children against HPV and for designing a future HPV prevention intervention for Hispanics.

METHODOLOGY
A descriptive qualitative design was used. Recruitment site was 66% Hispanic. Inclusion criteria: (a) self-identifying as a Hispanic mother or father and (b) being between 18 and 50 years of age. Saturation was reached after conducting four focus groups with 23 Hispanic parents from rural communities in South Florida. There were two groups of Hispanic mothers (n = 13), one group of Hispanic fathers (n = 3), & one mixed group (n = 7). Directed content analysis using the Theory of Planned Behavior (TPB) constructs was used to analyze the transcripts.

RESULTS
All TPB constructs were identified as salient factors for HPV vaccination including background factors (e.g., gender, religion, HPV vaccine awareness and knowledge, culture, emotion, perceived risk, and past experiences), attitudes towards the behavior, perceived norms, perceived behavioral control, actual control, intention, and behavior. Participants consisted of 18 mothers and 5 fathers, 22 to 49 years old, annual household income $8400 to $48,000. Top three countries of origin were Mexico (n=9), the US (n=5), and Guatemala (n=4). Most were Christian (86.9%) and had 2-3 children.

Examples of Participant Quotes from Salient TPB Themes

<table>
<thead>
<tr>
<th>Background Factors</th>
<th>Culture (Machismo): “…if the father is very machista he does not like to speak about it, if the mother does not obey the father, [rather] she will not do it because the father will get upset.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Norm</td>
<td>Culture (sexual taboos): “…today's relationships with the children are much better than in the past. At least before not even crazy one dared to ask [about sexual topics] to one's mother out of shame, out of respect, out of whatever.”</td>
</tr>
<tr>
<td></td>
<td>Positive: “Well, we do not know that it will protect 100% but at least uh, security to feel calmer because one is not always with the children.” Negative: “…but already the human papilloma vaccine, there are girls or teenagers who end up in wheelchairs, they cannot move the spine, they are very strong effects, they definitely end up in a wheelchair, there are others that don’t.”</td>
</tr>
<tr>
<td>Perceived behavioral control</td>
<td>Perceived social pressure from acquaintances: “…seeing it after one goes through a bad experience well, it is better to prevent...to have a family member who has dealt with cancer...not [related to HPV] but in any case, one is left with the expectation that it is better to prevent.”</td>
</tr>
<tr>
<td>Actual control</td>
<td>Facilitator: “[Offering vaccines in schools] it is good for some parents, for example, who work and cannot take them to the clinics.” Barriers: “…when it comes to the shots [my wife] is cool and I cry so you know, I don't like shots for the kids”</td>
</tr>
<tr>
<td></td>
<td>Lack of supply: “…my daughter turned 13 but I spoke with the [health care provider] and told them that I wanted them to give it to her. But they told me that they did not have it at that moment, that later when I took her to another appointment if they had it they would give it to her.”</td>
</tr>
</tbody>
</table>
CONCLUSION

Addressing HPV vaccination by developing educational programs based on the TPB and tailored to meet the needs of Hispanic parents is urgently needed to prevent HPV infection among Hispanics in rural US communities. This approach can also serve as a directive to target HPV vaccination among Hispanics in other rural areas in the US. Furthermore, healthcare providers must proactively promote and recommend the HPV vaccine (HPVV) using culturally sensitive approaches, educate and encourage Hispanic parents on having sex-related discussions with their children, include children in the HPVV education and decision, bundle the HPVV with other child vaccines when possible, and utilize reminder systems to ensure completion of the vaccine series.

Salient TPB themes among Hispanic parents for HPV vaccination

<table>
<thead>
<tr>
<th>Themes</th>
<th>Sub-themes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background Factors</strong></td>
<td>a. Gender</td>
</tr>
<tr>
<td><em>(Demographic, relational, and informational factors)</em></td>
<td>b. Religion</td>
</tr>
<tr>
<td></td>
<td>c. HPVV Awareness</td>
</tr>
<tr>
<td></td>
<td>d. HPVV Knowledge</td>
</tr>
<tr>
<td></td>
<td>e. Culture</td>
</tr>
<tr>
<td></td>
<td>f. Emotion</td>
</tr>
<tr>
<td></td>
<td>g. Perceived Risk</td>
</tr>
<tr>
<td></td>
<td>h. Past experiences</td>
</tr>
<tr>
<td><strong>Attitudes towards the behavior</strong></td>
<td>a. Positive</td>
</tr>
<tr>
<td><em>(Individual’s beliefs about a behavior and its consequences)</em></td>
<td>b. Negative</td>
</tr>
<tr>
<td><strong>Perceived norm</strong></td>
<td>a. Perceived social pressure from HCPs</td>
</tr>
<tr>
<td><em>(Perceived social pressure from other individuals)</em></td>
<td>b. Perceived social pressure from acquaintances</td>
</tr>
<tr>
<td></td>
<td>c. No perceived social pressure</td>
</tr>
<tr>
<td></td>
<td>d. Family as referents</td>
</tr>
<tr>
<td><strong>Perceived behavioral control</strong></td>
<td>a. Facilitators</td>
</tr>
<tr>
<td><em>(Facilitators, barriers, and self-efficacy in doing a behavior)</em></td>
<td>b. Barriers</td>
</tr>
<tr>
<td><strong>Actual control</strong></td>
<td>a. Lack of supply</td>
</tr>
<tr>
<td><em>(External factors or skills that may facilitate or deter doing a behavior)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Intention</strong></td>
<td></td>
</tr>
<tr>
<td><em>(An individual’s motivation to do a behavior)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Behavior</strong></td>
<td></td>
</tr>
<tr>
<td><em>(The performance of the health-promoting behavior)</em></td>
<td></td>
</tr>
</tbody>
</table>

TPB = Theory of Planned Behavior; HPVV = Human Papillomavirus Vaccine; HCP = Health care provider’s

References:
Addressing health disparities in diabetes among Hispanics using shared medical visits and motivational interviewing

Juan C. Oves Jr., MPH, Dan Tran, Maryse Pedoussaut, MD. Department of Humanities, Health, and Society, Herbert Wertheim College of Medicine, Florida International University, Miami, FL, USA

joves002@fiu.edu

Background

Type 2 diabetes mellitus (DM2) accounts for over 95% of all diagnosed patients with diabetes in the U.S. DM2 is a chronic disease affecting the metabolism of glucose through the insufficient production of insulin and the gain of resistance to the insulin produced. The etiology of DM2 is multifactorial and is influenced by various environmental and genetic factors not well understood. Some studies have shown that being overweight, obese, and physical inactivity are risk factors contributing to the development of DM2. Florida is estimated to have 2.4 million people living with diabetes and over 5.8 million with prediabetes. In Miami-Dade County, health disparities exist among minority populations, including differences in education and socioeconomic status. Florida adults with less than a high school education have a higher prevalence of diabetes than other populations with a high school education, who attended some college or graduated college (BRFS). Minority populations such as African Americans and Hispanic/Latino Americans have a higher risk of developing prediabetes and DM2. Hispanic/Latinos are more likely than non-Hispanic whites to develop DM2. The CDC reports that 1 in 2 Hispanic/Latino adults will develop DM2 in their lifetime. Although the largest minority population in Miami-Dade County, Hispanic/Latinos face various challenges with diabetes that include poor glucose control, elevated cholesterol, obesity, adherence to medication, depression, and inadequate health education.

Methods

Through a public health approach, the NeighborhoodHELP program at the FIU Herbert Wertheim College of Medicine provides shared group medical visits for patients enrolled in the program diagnosed with prediabetes or DM2. Patients enrolled in the program are reside in Miami-Dade County and have no health insurance or access to health services. The NeighborhoodHELP program provides access to free healthcare services and treatments. Through the collaboration of a team of physicians, nurses, and medical students, the shared group medical visit focuses on providing health education and support on diabetes management. The medical group visit intervention uses motivational interviewing, health education, mindfulness techniques, and empowerment to increase self-efficacy among participants and improve glucose control. The behavioral intervention was recently adapted to a digital platform to reach patients during the COVID-19 pandemic.

Figure 1. Shared Group Medical Visit Components

<table>
<thead>
<tr>
<th>Intervention Components</th>
<th>Component Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcoming &amp; inclusive environment</td>
<td>Group establishes rules and shares their stories regarding diabetes.</td>
</tr>
<tr>
<td>Mindful eating</td>
<td>Teaching mindfulness to increase awareness of individual emotions and thoughts on food.</td>
</tr>
<tr>
<td>Health Education</td>
<td>Provide health education on diabetes management, nutrition, and physical activity. Including an understanding of lab values.</td>
</tr>
<tr>
<td>Group Motivational Interviewing</td>
<td>Patient-centered approach to elicit patient motivation to change specific behaviors.</td>
</tr>
</tbody>
</table>

Figure 2. Constructs Measuring DM2 Management

- Perception of Risk
- Hemoglobin A1C
- Diabetes Management
- Knowledge
- Self-efficacy

Preliminary Results

Results are preliminary, but participants in shared group medical visits have expressed increased self-efficacy, knowledge, and are more aware of the importance of diabetes management compared to a one-to-one medical visit. The program is currently in the process of collecting other parameters such as health outcomes and following patients longitudinally.

- Improvement in hemoglobin A1C
- Improvement in BMI
- Increase in knowledge on diabetes and nutrition
- Increase in self-efficacy in regards to glucose management

Conclusion & Recommendations

As an epidemic of obesity continues to increase among populations in the United States, underserved minority populations such as Hispanics and Latinos who face many health disparities such as diabetes and cardiovascular diseases, necessitate an increase in funding and the development of behavioral interventions/programs that integrate group medical visits to increase knowledge, awareness, and self-efficacy in diabetes management and overall reduce morbidity and mortality. Such programs may provide a welcoming and inclusive environment for participants to learn and support each other in managing a chronic disease and improving the patient’s overall health and well-being. Since the COVID-19 pandemic, studies have reported a bidirectional relationship between diabetes and COVID-19, elucidating the risks of becoming infected with COVID-19 while living with diabetes and the risk of developing diabetes and other complications when infected with COVID-19. Also as a result of the pandemic, many in-person interventions have been altered or dismantled due to the risk of exposure, placing patients living with diabetes or prediabetes at risk of following care and further developing diabetes and-related morbidities. As this pandemic continues, as primary care physicians, we must be on the forefront in strengthening our support and increasing innovations to address the many chronic diseases affecting minority populations in the U.S., such as diabetes.

Acknowledgements

We would like to thank the FIU Herbert Wertheim College of Medicine NeighborhoodHELP program and all participating faculty, students, and staff.


Uncommon Consequences of SARS-CoV-2 On The Nervous System

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Poznań University of Medical Sciences  
perezmendez.natalie@gmail.com

Purpose

The purpose of this case report is to present a case of a healthy individual who now suffers from new-onset neurological symptoms since obtaining SARS-CoV-2 infection and how it may warrant further investigation into how and why the novel coronavirus infiltrates nervous tissue.

Methodology

- This case report was retrospectively written after extensive analysis of the patient’s electronic medical record and review of the patient’s clinic visits with the internal medicine attending.

Results

- A 52-year-old Hispanic female with no prior history of nervous system pathology presented to our outpatient clinic with intermittent neuropathy, intermittent amnesia, hair loss, and intermittent rash after having COVID-19.
- The patient first complained only of chest tightness, fever, and shortness of breath during the initial telemedicine encounter.
- She was prescribed a one week course of oral prednisone followed by dexamethasone intramuscular injections daily for 2 weeks.
- Approximately 2 months later, after the resolution of the respiratory symptoms and testing negative for SARS-CoV-2 (RNA, Qualitative NAAT) twice, the patient returned to the clinic complaining of severe muscle aches, sciatica-like pain down both lower extremities, and nerve-impingement pain starting at the neck radiating along both upper extremities. She also complained of intermittent amnesia, chronic fatigue, hair loss, and dermatitis affecting the upper arms and waist. The aforementioned symptoms were refractory to oral NSAIDs and topical diclofenac.
- It was then decided to try cyanocobalamin intramuscular injections.
- This resolved much of the patient’s symptoms for several days, but they did eventually return.
- The injection was administered again and the patient's symptoms resolved.
- Therefore, it was decided to administer 1000 mcg of cyanocobalamin to the patient every other day which has allowed her to return to normal daily lifestyle functioning.

Conclusion

- Nervous system consequences are generally overlooked when managing patients with COVID-19.
- Here we offer evidence that new-onset neurological symptoms may be debilitating byproducts of SARS-CoV-2 possible attack on the nervous system.
- Based on our patient's positive response to regular cyanocobalamin injections, we believe further research is warranted to investigate its role as a potential part of the therapeutic regimen of the prolonged COVID-19 sequelae in the outpatient setting.
Use of Published AAMC Data as an Indicator of Progress in Medical School Recruitment of Underrepresented Minorities: A Pennsylvania State Analysis
Nicolas J. Echeverria, B.S., Jordan J. Juarez, M.S., Ana M. Gamero, Ph.D.
1Lewis Katz School of Medicine at Temple University; 2 Department of Medical Genetics and Molecular Biochemistry, Fels Cancer Institute for Personalized Medicine, Lewis Katz School of Medicine at Temple University, Philadelphia, PA

**BACKGROUND AND OBJECTIVE**
- Increasing the number of minority physicians is essential for mitigating health disparities.1
- Undergraduate minority pipeline programs have been established to increase underrepresented minorities (URM) recruitment.
- This study aims to elucidate trends in medical school applications from URM undergraduate students from the three largest publicly funded, state-affiliated universities in Pennsylvania.

**METHODS**
- Applicant data was retrieved from AAMC FACTS: Applicants and Matriculants Data and demographic data from Common Data Sets (CDSs) was obtained for Pennsylvania State University, Temple University, and the University of Pittsburgh from application cycles spanning 2016-2020.
- An analysis was conducted to compare the proportion of URM medical school applicants to the proportion of total URM undergraduate students at each university.

**RESULTS**

**Table 1: University of Pittsburgh - Application Cycle**

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<tr>
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**Table 2: Temple University - Application Cycle**

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**Table 3: Pennsylvania State University, Application Cycle**

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<td>INSUF</td>
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</tr>
</tbody>
</table>

- [less applicants compared to proportion of undergraduate student body]; + [more applicants compared to proportion of undergraduate student body]; INSUF (insufficient data available to compare proportions); AI (American Indian)

**CONCLUSIONS**
- All three universities consistently produced a greater proportion of Black undergraduate medical school applicants compared to the proportion of total Black undergraduate students.
- University of Pittsburgh and Temple University did not produce sufficient Latino undergraduate medical school applicants, with Pennsylvania State unable to do so in 2019-2020.
- All three universities did not produce sufficient American Indian undergraduate medical school applicants.
- There is an urgent need to increase Latino and American Indian medical school applications in order to mitigate the health disparities stemming from the underrepresentation of minority physicians.
- More comprehensive publicly available data is warranted to better measure the success of undergraduate minority pipelines.

**REFERENCES**
Feasibility of a Food Insecurity Screening and Referral Pilot Program in the Emergency Department

Victor Cisneros MD MPH, Shashank Somasundaram, Tiffany Hwang, Joseph Bui, Hasan Khan, Zaid Parekh, Holly Nguyen, Armin Takallou, Alejandro Aviña, Hilary Tang, Wirachin Hoonponsimanont MD MS, Shahram Lotfipour MD MPH, Bharath Chakravarthy MD MPH
University of California, Irvine - Department of Emergency Medicine

We would like to thank Dr. Bharath Chakravarthy, Dr. Eric Handler, and Waste Not OC Coalition for funding and allowing us to work on this project with them. We would also like to thank Dr. Wirachin Hoonponsimanont and the EMRAP (Emergency Medicine Research Associate Program) students for their dedication and hard work in helping obtain enrollments.

I. Background

1. Food insecurity rate in 2017
   - U.S. Households: 11.8% (USDA)
   - Orange County, California: 12% (OC Food Access)
2. Benefits of emergency department (ED) screening
   - Wide catchment area
   - Varying levels of food insecurity
   - Direct contact with disadvantaged, uninsured, and refugee populations
3. Prior research
   - Popularity of 2-question screen

II. Objective

❖ Assess the feasibility of a 2-tiered ED-based screening program & quantify the severity of food insecurity at an academic, Level I Trauma Center
❖ Quantify longitudinal effectiveness of an ED-based screening and referral program

III. Methodology

**Inclusion Criteria:**
- ≥ 18 years old
- English speaking
- Spanish speaking

**Exclusion Criteria:**
- < 18 years old
- Psychiatric patient
- Incarcerated
- Non-English and non-Spanish speaking

Convenience sample approached by research associates

2-Item Screening Tool
- Food Insecure (FI) positive patients are consented and enrolled into Part II for FI Severity Index
- Contact information is collected and research liaison follows-up with patient in 3 and 6 weeks

**FI Severity Index**

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<thead>
<tr>
<th>Age</th>
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<th>Female</th>
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<tr>
<td>61-70</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

**Prevalence of FI in different population subgroups**

IV. Results

1. A total of 2665 patients were screened
   - 16.6% (442) screened positive for food insecurity and were approached to enroll for part II
   - Average age: 50.4
   - Preferred Language: 84.0% (2239) English; 11.5% (307) Spanish; 2.3% (60) Vietnamese; 2.2% (59) Other
2. A total of 297 patients completed the part II survey
   - Average food insecurity score: 6.41
   - Standard Deviation: 2.77
   - 14.1% of food insecure patients have a 4-year degree or higher
   - 42.8% of food insecure patients have at least one child

V. Future Directions

- Identify barriers to utilizing food assistance program resources
- Identify routes of integrating into standard-of-care with minimal impact on ED throughput
- Establishment of an ED-based food pantry

VI. Conclusions

1. A 2-tiered food insecurity screening is feasible in the ED setting
2. Black or Hispanic/Latino patients had higher prevalences of food insecurity than White or Asian patients

VII. Acknowledgments

We would like to thank Dr. Bharath Chakravarthy, Dr. Eric Handler, and Waste Not OC Coalition for funding and allowing us to work on this project with them. We would also like to thank Dr. Wirachin Hoonponsimanont and the EMRAP (Emergency Medicine Research Associate Program) students for their dedication and hard work in helping obtain enrollments.

VIII. References

NeighborhoodHELP-Borinquen Pilot Project: Addressing Clinical Patients’ Health and Social Needs Using Household-Centered Care

Catherine Busatto, MSPA, PA-C; Joshua Dorbu, MPH
Florida International University Herbert Wertheim College of Medicine Green Family Foundation NeighborhoodHELP

cbusatto@fiu.edu

Purpose

Florida International University (FIU) Herbert Wertheim College of Medicine Green Family Foundation NeighborhoodHELP Health Education Learning Program, provides household-centered care with interprofessional teams and addresses social determinants of health (SDOH) in Miami’s underserved communities. FIU’s NeighborhoodHELP partnered with Borinquen Medical Centers in the NeighborhoodHELP-Borinquen-Pilot Project with the intent to assess the impact of our household-centered care approach on the health outcomes of asthmatic and diabetic pediatric patients referred by Borinquen Medical Centers and residing within medically underserved communities in Northeast Miami-Dade County.

Our specialized team of outreach liaisons and a physician assistant (PA) leverage SDOH education to guide participating households and connect them to community resources to help households with significant health and social risks thrive.

Conclusion

Our pilot partnership between FIU NeighborhoodHELP and the Borinquen Medical Center fills a gap in the burgeoning landscape of multi-sector partnerships. By providing an additional vantage point through home visitation, clinicians have access to patient’s specific SDOH risk factors and barriers to address the complex health and social needs in diverse, medically underserved populations.

Continued investigation into this healthcare model would entail a larger scale intervention with more patients over a larger timespan to assess the value of this methodology to providers and policymakers. Further work would also involve additional trainings for brick-and-mortar healthcare systems to promote the integration of household-centered care into the mainstream healthcare sector.

Results

Florida International University (FIU) Herbert Wertheim College of Medicine Green Family Foundation NeighborhoodHELP, Health Education Learning Program, provides household-centered care with interprofessional teams and addresses social determinants of health (SDOH) in Miami’s underserved communities. FIU’s NeighborhoodHELP partnered with Borinquen Medical Centers in the NeighborhoodHELP-Borinquen-Pilot Project with the intent to assess the impact of our household-centered care approach on the health outcomes of asthmatic and diabetic pediatric patients referred by Borinquen Medical Centers and residing within medically underserved communities in Northeast Miami-Dade County.

Our specialized team of outreach liaisons and a physician assistant (PA) leverage SDOH education to guide participating households and connect them to community resources to help households with significant health and social risks thrive.

Table 1: Individual Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Individuals</th>
<th>Target patients</th>
<th>Household numbers</th>
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</table>

Acknowledgements

Jimmy Pertil, MS; Myrtha Jean-Baptiste; Vanessa Rodriguez; Sophia Lacroix, BS; Heather Gomez-Bendana, MPH; Virama Oller, MBA; Luther Brewster, Ph. D; Pedro J. Greer Jr., MD; Onelia Lage, MD. This project was supported by grant funding from the Aetna Foundation.
PROGRAM OVERVIEW
Charla de Lupus (Lupus Chat)® is a unique national program developed in 1994 to address health disparities among people with lupus. Charla offers people with SLE and their families, peer health support and education in both English and Spanish. It is the only hospital-based national lupus peer support and education program culturally tailored to meet the needs of Latino and African American communities, who are affected by this illness at a higher rate.

BACKGROUND
As part of the hospital’s involvement in the Community Service Plan (CSP), required by the New York State Department of Health (NYSDOH) Charla has pioneered several interventions for teens, young adults and parents who reside in the metro NYC area. After conducting a pilot survey to identify self-reported needs & concerns for men with SLE we identified several unmet needs for males with SLE that differ greatly from their female counterparts.

PURPOSE:
SLE mostly affects women; however, males represent 4-22% of patients. Research shows men tend to seek medical attention & supportive care < women & are underrepresented at self-management/support services for coping with SLE, despite having higher disease severity. Limited research exists regarding the specific mental, psychosocial, & support needs of men with SLE. A hospital-based national support & education program with a focus on reaching African American & Hispanic/Latino communities with SLE, conducted a national survey to identify self-reported needs & concerns for men with SLE.

METHODOLOGY:
- An 85-item survey with Likert scale & open-ended questions was disseminated nationally to males with SLE over 18.
- The survey was advertised via online forums at major hospitals serving SLE patients in NYC & local & national SLE groups.
- The survey assessed 4 core areas: health status & quality of life, health behavior & lifestyle, access to care & interest in male specific programming.
- Surveys were completed via an online link.

RESULTS:
A total of 112 respondents participated in the survey, 61% identified as White, 21% Black/African American, 15% Hispanic & 31% other. Mean age was 26 & mean year since diagnosis (DX) was 10. 49% of males were employed/self-employed & 46% unemployed/unable to work. 53% had an annual income of >50K, & 59% had some college or advanced degree. Almost half (45%) reported living in an urban/city area, 34% suburban area & 20% rural area. Almost all (92%) were being treated by a Rheumatologist.

When respondents rated their overall health, 65% reported their health as fair/good, while 21% reported poor health. The majority (76%) reported worrying more about their future since DX. Most males (83%) reported that SLE limits their activities of daily living.

When asked about the single most important way SLE affected daily life, responses included fatigue & pain, with 48% reporting feeling pain daily. 52% of men reported SLE affects their sexual health: 52% reported less sexual desire & satisfaction, 45% limited motion, & 47% impotence.

When asked how often they followed medical advice, 59% said always, however reasons for not following medical advice included: worry about treatment side effects (44%) & that treatment would not help (43%).

CONCLUSION:
Despite our small sample, this study provides important information about the physical & emotional health of males with SLE as well as their interest in psychosocial support. A next step would be to conduct focus groups with more ethnically diverse males with SLE since lupus disproportionately affects more African American, Hispanic/Latinos and Asian-Americans.
Title: A Quality Improvement Project: The Expansion of Public Health Nursing Services to Infants Born at the University of Chicago Medicine

Author: Guadalupe Perez, DNP, RNC-MNN, APHN, CNL

Background

• A comprehensive community health assessment of the infant health outcomes in the city of Chicago showed that the highest prenatal adverse outcomes that lead to high infant mortality rates are mostly found in community areas in the South Side of Chicago such as Calumet Heights, Fuller Park, and Riverdale.

• The Maternal, Infant, Child, and Adolescent Health bureau at the Chicago Department of Public Health (CDPH) provides public health nursing support services through the Family Connects Chicago and Adverse Pregnancy Outcomes Surveillance system (APORS) programs. However, not all infants born in Chicago are offered public health nursing support services under these programs. This can lead to a gap in public health nursing support services in infants born in the south side of Chicago.

• CDPH has expanded public health nursing support services to eligible infants born at the University of Chicago Medicine (UChicagoMedicine) Family Birth Center to address Chicago’s South Side community areas with high prenatal adverse outcomes, including high infant mortality rates. Yet, the initiative of the expansion of public health nursing services to the UChicagoMedicine Family Birth Center lacked an infants recruitment plan.

Purpose

• This quality improvement (QI) project's objective was to achieve a 60% of public health nursing support services (telehealth nurse visit) acceptance/completion rate of the eligible infants referred from the University of Chicago Family Birth Center.

Methods

• Methods included recruitment of eligible infants, which consisted of the development and the application of a referral process, the creation of a secured electronic referral form, and marketing materials.

• Infant eligibility included unregistered infants who are born to mothers who received prenatal care outside the organization/healthcare system, had minimum prenatal care, and/or did not receive any prenatal care.

• The UChicagoMedicine social workers and medical residents identified eligible infants at the time of their birth, offered CDPH public nursing services to the infant’s parents and/or guardians (family) and confirmed verbal consent for referral completion.

• The public health nurse support services consisted of a telehealth nurse visit via telephone technology soon after the new mother and her infant were discharged from the hospital.

• The telehealth nurse visits included, but were not limited to; maternal and infant health checks, connections to healthcare and community resources.

• The data collection included the number of referrals received compared to the telehealth nurse visit completed which determined the acceptance rates.

• This QI project was guided by the Model for Improvement framework that included a Plan-Do-Study-Act (PDSA) cycle for program evaluation. See figure 1 for more details.

Results

• There was a total of ten referrals (N=10) received from the UChicagoMedicine Family Birth Center from August 10, 2020 to September 30,2020.

• 60% (N=6) of the infants’ families accepted telehealth nurse visits. See figure 2 for details.

• The remaining 40% (N=4) of families who did not receive services were found to be unreachable.

• Additional data collection showed that the unreachable infants/families were reached via phone call by the public health nurses, but the infants’ families did not return their calls. One family’s phone was disconnected.

Figure 2. The number of referrals of infants whose families accepted/completed telehealth nurse visits and number of infants’ families unable to reach.

Conclusion

• This QI project focused on the implementation of infants’/families’ recruitment process to facilitate the expansion of public health nursing support services to eligible infants born at the UChicagoMedicine Family Birth Center.

• The project’s objectives were met, and data collection provided additional information and details of why families did not accept/complete nursing support services.

• Further data collection and research is needed to confirm why some families are unreachable, which can be compared to the COVID-19 era and post COVID-19 era.

• A second PDSA Cycle completion was recommended before protocols are finalized by modifying the families’ recruitment process and adding the following components;

  a) Explore other methods of communication, such as texting technology.
  b) Translating marketing materials to Spanish.
  c) Collect additional contact information from the infants’ family.

• It is highly recommended to expand public health nursing support services to all infants born in underserved community areas by partnering with local birthing hospitals to address gaps in infants’ healthcare, and to address social determinants of health.
Addressing Emergency Room Overutilization with an Innovative Household Centered Care Approach.

The Florida International University Green Family Foundation NeighborhoodHELP Program in Partnership with Baptist Health Systems of South Florida.

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Purpose

Describe the components of an interprofessional integrated household centered care approach and how it reduced emergency department (ED) utilization rates for a targeted group of high ED utilizers in an underserved community.

Background

The FIU NeighborhoodHELP (NHELP) program is a holistic household centered care approach to caring for diverse underserved communities that are largely Hispanic and African American in Miami-Dade County by addressing the social determinants of health. Its service delivery model utilizes interprofessional student teams (physician assistants, social workers, nurses, MDs, community outreach workers, and lawyers) to address the medical and social needs of uninsured high emergency room utilizers with chronic medical conditions. Enrolled patients are cared for at mobile health centers in their own neighborhood and then followed up with household visits.

The evidence clearly shows that economic disadvantages along with low health literacy can contribute ED overutilization. Public health consequences are a result of poor coping strategies born from a lack of access to adequate social, medical and mental health care.

NHELP providers recognize the importance of collaborative efforts among community stakeholders in order to provide chronic disease management and mitigate the social determinants of health that often lead to increased emergency room visits.

Methodology

Participants were referred by a local hospital and are predominantly Hispanic and African American uninsured high ED utilizers. The observational cohort of uninsured high ED utilizers (n=31) was tracked longitudinally (1,767 months of discrete observational data) for number of ED visits over time. The effect of enrollment and duration in the program on the rate of ED visits were assessed with an uncontrolled pre-post design. A multilevel Poisson regression model was employed to control for patient-level fixed effects.

• A team of outreach specialists enroll patients, identify needs, and connect them to needed services through an extended network of community partners and internal resources.
• Following enrollment, patients are scheduled on the mobile health center to establish primary care.
• Enrolled patients receive a range of services in addition to primary care through collaborative efforts of the interprofessional student teams, such as:
  • Education about disease processes and management;
  • Culturally sensitive nutritional education
  • Care coordination of high-risk patients by the Physician Assistant;
  • Referrals for specialty care
  • Connection to legal and transportation services.

Participants were referred by a local hospital and are predominantly Hispanic and African American uninsured high ED utilizers. The observational cohort of uninsured high ED utilizers (n=31) was tracked longitudinally (1,767 months of discrete observational data) for number of ED visits over time. The effect of enrollment and duration in the program on the rate of ED visits were assessed with an uncontrolled pre-post design. A multilevel Poisson regression model was employed to control for patient-level fixed effects.

Average ED visits per month decreased from 0.36 pre-enrollment to 0.15 post-enrollment. In the multilevel model, each additional month post-enrollment was associated with a 2.5% (p<0.001; 95% CI: 1.2% to 3.9%) decrease in expected ED visits per month.

The program has showed a reduction in emergency room utilization by 45% over a three-year period. NHELP enrolled households also exceeded 75% of national clinical benchmarks, which look at a comprehensive set of standardized performance measures.

Conclusion

Results lead us to ascertain that incorporating culturally appropriate, interprofessional team-based care for Hispanic and African American uninsured/underserved communities, with a focus on addressing Social Determinants of Health can lead to decreased ED visits.

In addition, NeighborhoodHELP’s holistic household centered care approach facilitates underserved communities to increase access to health care and improve outcomes. Though ED utilization was discussed in this poster, NeighborhoodHELP’s purpose, extends to promoting health, resilience, wellbeing, and disease prevention in the communities they serve.

http://medicine.fiu.edu

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Adult-onset Still's Disease in Young, Hispanic woman
- What to do to advocate for your patient's health

Joaquín A. Villegas Inurragar, MD/MPH, Michael A. Garcia, MD, and German N. Martinez-Gamba, MD
Department of Family and Community Medicine, University of Texas Health Science Center at Houston, Houston, TX

Purpose
The purpose of this case report is to instruct the viewer how to make the diagnosis of Adult-Onset Still's disease and how to properly treat it. Also, it will provide instructions on how to deal with insurance pre-authorizations and specialty pharmacies to advocate for patients' health.

Introduction
Adult-onset Still's Disease is an inflammatory disorder with a pathognomonic triad of arthritis, rash and daily fevers. With an annual incidence of 0.16 per 100,000 people, Adult-onset Still's disease is a rare disease. There is a bimodal age distribution with one peak at ages 15-25 and a second at ages 36-46. Males and females are equally affected.

There are three patterns of this disease: monophasic (resolving within 1 year), intermittent (recurrent symptoms with remission of 1-2 years between flares) and chronic, with symptoms persisting for years. The most predominant symptoms are arthritis and arthralgia, which can be seen as transient and oligoarticular, the symptoms soon involve major joints like knees, wrists, ankles, elbows, shoulders and proprioceptive, interphalangeal joints. Manifestation can evolve over periods of months and can even lead to destructive polyarthritis in some patients.

Symptoms also include myalgia, daily fevers and a classic evanescent salmon-pink rash that involves the trunk, extremities and occasionally can involve the palms, soles and face. The rash tends to appear and disappear with the fever.

Lesser symptoms include pharyngitis, hepatomegaly, lymphadenopathy, splenomegaly and pericarditis. Lab markers include elevated ESR and CRP, elevated ferritin, and leukocytosis. Transaminitis can also be seen in those with liver components. Of note, ANA and rheumatoid factor are most commonly negative. Interleukin-6 and 18 are often elevated.

Diagnosis is usually a diagnosis of exclusion. The Yamaguchi criteria has been developed to help diagnose Adult-Onset Still's Disease (see Figure 1).

Case Report
Patient is a 24-year-old Hispanic woman with no significant medical history, presenting to the hospital with over 6 weeks of painful swollen knee joints, debilitating myalgias and rash on her face and trunk, and intermittent fevers. The patient came to Houston from the Rio Grande Valley in the deep South Texas area. Back home, patient was told her “lab workup” was negative and that a specialist was not available until 6 more months.

On presentation, patient was febrile to 101.8, but otherwise all other vital signs stable. Physical exam, imaging and lab workup as follows:

<table>
<thead>
<tr>
<th>General:</th>
<th>ASOx3, no acute distress</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEENT:</td>
<td>Submandibular lymphadenopathy palpated, no mucosal lesions</td>
</tr>
<tr>
<td>Cardio:</td>
<td>Regular rate and rhythm, no abnormal heart sounds</td>
</tr>
<tr>
<td>Resp:</td>
<td>Clear to auscultation bilaterally, regular rate</td>
</tr>
<tr>
<td>Abdominal:</td>
<td>Soft, non-tender, non-intended</td>
</tr>
<tr>
<td>Extremities:</td>
<td>2+ pulses palpated, no edema</td>
</tr>
<tr>
<td>Skin:</td>
<td>Macular papular salmon-pink rash over trunk and face, no excoriation marks</td>
</tr>
<tr>
<td>Labs:</td>
<td>ESR: 78, CRP: 6.8, ANA: negative, RF: negative</td>
</tr>
</tbody>
</table>

Rheumatology was consulted and diagnosis of moderate to severe Adult-onset Still's disease was made. However, patient was resistant to typical therapy of NSAIDs, prednisone, anakinra (IL-1 receptor antagonist) and tocilizumab (anti-IL-6 receptor monoclonal antibody). Patient was then started on Canakinumab (anakinra IL-1 beta monoclonal antibody) which resolved symptoms. However, patient's hospital stay was prolonged while the medical team had to obtain authorization from her insurance company to dispense the medication in the outpatient setting.

Figure 1. Yamaguchi Criteria for Adult Onset Still Disease

<table>
<thead>
<tr>
<th>Major Criteria</th>
<th>Minor Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever &gt;102.2 F, lasting &gt;1 week</td>
<td>Sore throat</td>
</tr>
<tr>
<td>Arthralgia/arthritis lasting &gt;2 weeks</td>
<td>Lymphadenopathy</td>
</tr>
<tr>
<td>Nonpuritic, salmon-pink rash during febrile episodes</td>
<td>Hepatomegaly or splenomegaly</td>
</tr>
<tr>
<td>Leukocytosis &gt;10,000 with &gt;80% granulocytes</td>
<td>Abnormal liver function tests</td>
</tr>
<tr>
<td>Yamaguchi criteria requires presence of five features, with at least two being major diagnostic criteria. All other possible causes, such as malignancy, infection, autoimmune disorder or toxins must be ruled out.</td>
<td></td>
</tr>
</tbody>
</table>

Managing Pre-authorization

Specially drugs are those considered complex medications usually prescribed for complex, chronic and rare diseases, such as cancer, MS and HIV/AIDS. They tend to have high costs due to specialized delivery, preparation, storage and distributions. Thus, insurance companies often try to avoid these medications, here are some learning points that arose from this patient's situation.

- Be up-to-date with clinical guidelines
- Be prepared to defend your choice of drug and point out Evidence-Based medicine to justify your decision
- Clearly document failed therapies and duration
- Be sure to document all attempted therapies and point out why it was necessary to escalate to the drug in question.

Choose to speak with Physician Decision Maker

Insurance will likely have a physician on-staff that will help provide context to the drug in question. Ask to speak with them to

4. Keep Trying!

Just because you have been denied once, it does not mean you can't try again. If the patient is benefiting from the treatment and there is no alternative, keep advocating for your patient's health.

Conclusion

This case report highlighted how a typical patient with Adult-onset Still's Disease can present Adult-Onset Still's Disease is a rare rheumatological disorder that is a diagnosis of exclusion and can sometimes be refractory to common treatment.

Dealing with insurance companies is a reality of life for providers and it is vital to become adept in it to advocate for your patients and their health.

Works Cited

An Obesity Prevention Intervention for Latino Families

Estrada L, MPH CHES, 1 Madrigal I, RD, 2 Chapman M, 2 Berdugo J, 2 Homs C, 2 Gómez SF MPH PhD1,3

1Gasol Foundation, Los Angeles, CA, USA; 2Gasol Foundation, Sant Boi de Llobregat, Barcelona, Spain; 3GREpS, Health Education Research Group, Nursing and Physiotherapy Department, University of Lleida, Lleida, Spain

**PURPOSE**

To demonstrate improvements in the four key determinants of childhood obesity: eating habits, physical activity, hours and quality of sleep, emotional well-being, and weight status.

**METHODOLOGY**

**Program Structure**

The program is offered on Saturday mornings to children ages 6-12 and their families. It is implemented during the school year in the neighborhood of Watts, South Los Angeles, and Boyle Heights in Los Angeles County. The project structure consists of 8 sessions: 1 opening & 1 closing session and 6 sessions with children and adults. The program workshops and materials are delivered in Spanish.

**Evaluation Protocol**

The program is evaluated by PRE & POST assessments and BMI Measurements. The PRE-POST questionnaires measure skills, attitude, and knowledge of the four main topics. In addition, three anthropometric variables are collected from both children and adults.

**RESULTS**

Between 2017 and 2019, 187 adults and 294 children participated in the program. Adults increased physical activity levels and sleep hours and half (49.2%) improved their weight status. Nearly all children (92%) either maintained or improved their weight status and the overall percentage of children with obesity and abdominal obesity was lowered. Also, the majority of children (54.5%) improved their diet quality and over a third (31%) showed improvement in emotional well-being. Furthermore, most of the children (92%) decreased screen time during the weekends.

**CONCLUSION**

The program results highlight the relevance of culturally sensitive holistic health promotion interventions in vulnerable populations. In light of the COVID-19 pandemic, the Vida! Health & Wellness program has been adapted into a virtual model. The data for the virtual adaptation of the program will be available in summer 2021.
Purpose

In the United States, chronic disease affects racial and ethnic minorities at a disproportionate rate, in particular Hispanics and Latinos. Economic adversity and poor social conditions often contribute to disease burden. By empowering patients to reduce unhealthy behaviors, as many as 40 million cases of chronic diseases per year can be prevented.

Nutritional interventions have been incorporated within medical education curricula and as community programs as a means of empowering future medical professionals and patients to reduce chronic disease. One important aspect of nutrition is the cultural variability in diet, however it is unclear if nutritional interventions are appropriately addressing this factor.

The purpose of the literature review was to identify if cultural tailoring was incorporated in the design and implementation of nutritional interventions.

Methods and Materials

Frameworks proposed by Arksey and O’Malley (2005) & Levac, Colquhoun, and O’Brien (2010) were used in designing the scoping review.

1) Identifying research question
2) Identifying relevant studies
3) Data extraction
4) Analysis and synthesis
5) Consultation

Guiding research questions:
1) what proportion of studies have specifically discussed the use or tailoring of culturally relevant concepts in their design, implementation, and evaluation?
2) which chronic health conditions have been targeted by these same types of interventions?
3) what ethnic and/or racial groups have these interventions been implemented among or designed around?
4) geographically, where have these interventions been implemented?

PubMed, Scopus, Web of Science, and CINAHL (Cumulative Index to Nursing and Allied Health Literature), and the Cochrane Database of Systematic Reviews.

The Boolean search terms combinations: “culinary medicine”, “cultural competency” and “nutrition” and “medical education”; “culture” and “nutrition” and “medical education”; “patient nutrition education” and “culture”, “dietary” and “education” and “medical student”

Results

<table>
<thead>
<tr>
<th>Cultural Tailoring</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Midwest</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Southwest</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td>Southeast</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>125</td>
<td>125</td>
</tr>
</tbody>
</table>

Table 1: Medical Education Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Region</th>
<th>Ethnic Group</th>
<th>Target Disease</th>
<th>Cultural Tailoring</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
<td>Northeast</td>
<td>Hispanic/Latino</td>
<td>Diabetes mellitus</td>
<td>Yes</td>
<td>Additional scholarship needed for future studies.</td>
</tr>
<tr>
<td>Study 2</td>
<td>Southwestern</td>
<td>African American/Black</td>
<td>Hypertension</td>
<td>Yes</td>
<td>Future studies within the medical education level may benefit their target population with more culturally relevant topics.</td>
</tr>
<tr>
<td>Study 3</td>
<td>Southeastern</td>
<td>Asian/Pacific Islander</td>
<td>Obesity/Weight management</td>
<td>Yes</td>
<td>Future studies within community-based programs may benefit additional communities in need by addressing a wider breadth of chronic conditions and racial/ethnic groups.</td>
</tr>
</tbody>
</table>

Conclusion

• At the medical education level, interventions were tailored for obesity but incorporated no cultural tailoring.
• At the community level, the programs were tailored for specifically Latinos and African Americans with diabetes or cardiovascular disease.
• Need for further research into how culinary medicine is preparing physicians to effectively address and impact dietary differences among diverse patient populations.
• Future studies within the medical education level may benefit their target population with more culturally relevant topics.
• Future studies within community-based programs may benefit additional communities in need by addressing a wider breadth of chronic conditions and racial/ethnic groups.

Acknowledgements

We would like to thank Dr. Roberta Baer and Laura Kihlstrom for their feedback on the literature search methods in order to ensure inclusion of various academic disciplines.

References


Timely access to specialty care in low-income safety net health institutions is a well-known problem nationwide. Traditional specialty referral, or paper referral, is plagued with logistical problems, and after seeing a PCP, safety net patients can often wait months before being called to schedule the follow-up appointment while no show rates at specialty offices can average up to 40%. E-consult allows PCPs to manage their own patients specialty care by allowing PCPs and specialists to communicate via the EHR, without the need for a specialist face-to-face visit with the patient.

AltaMed Corporation instituted an E-consult system in its network of clinics in late 2018, though use of the E-consult system is not on par with the national average. E-consult has been demonstrated to decrease wait times and increase safety net patients' access to care, therefore improving AltaMed PCP’s use of E-consult is a logical next step to increasing patient access to quality care.

- Identify challenges of implementing E-consult
- Assess PCPs attitudes towards E-consult usage

Developed a survey to explore the potential benefits, barriers, and PCP sentiment with use of the E-consult (referred to as e-curbside) system at AltaMed
- Survey contained demographics and Likert Scale questions regarding PCPs perception of E-consult usage
- PCPs were defined to be practitioners within the AltaMed network with the following credentials: MD, DO, NP, and PA
- Out of the 193 survey sent out we received 40 back

**PCPs in AltaMed clinics overwhelmingly agree that E-consult use:***
- Increases patient access to specialty care (87.5% Agree).
- Improves the quadruple aim of quality enhancement (92.5% Agree).
- Are comfortable using E-consult (93.8% Agree)
- The specialist’s recommendation is very helpful (25.6% Agree)
- Challenges for PCP to use E-consult at AltaMed are as follows:
  - The specialist’s recommendations are not very useful (21% Agree)
  - Concerned that it will take too much time to receive response (15% Agree)
  - Takes too much time to use (13% Agree)
  - patient is better off seeing specialist face-to-face (13% Agree)

Overall PCP’s in AltaMed clinics agree that E-consult improves access and the quality of care given to safety net patients. Most are comfortable using the E-consult system, though the low self-reported usage overall of E-consult indicates need for further evaluation of the barriers discovered in this study.

- PCP’s are split on opinion over whether E-consult is a burden to their time. However most challenges noted using E-consult are logistical and could be improved upon to make E-consult an effective use of PCP time.

- Assessing whether E-consult is cost-effective for both the patient and AltaMed
- Analyze outcome efficacy through E-consult usage versus traditional consultation
- Difference in E-curbside usage for various specialties

**ACKNOWLEDGEMENTS**

- NMF Primary Care Leadership Program
- AltaMed in Los Angeles, CA
- Michael Hochman, MD, MPH of USC
- Efrain Talamantes, MD of AltaMed in Los Angeles, CA
- Funders listed in Scholars’ program acceptance letters (i.e. in text of first paragraph)
INTRODUCTION
➢ The COVID-19 pandemic continues to disproportionately impact the Latinx community, nonetheless, attention and resources have been less than equitably distributed
➢ A combination of structural inequities paired with a lack of transparency by government and media outlets continues to propagate the harm the Latinx community faces because of the pandemic
➢ Illinois Unidos (IU) purpose is to address and redress the consequences of slow, or even non-responses to increase COVID-19 testing, contact tracing, and educational outreach efforts, as well as necessary services for Latinx communities
➢ IU members include healthcare providers, researchers, community leaders, labor organizers, grassroots workers, and elected and appointed government officials committed to sharing COVID-19 data and information and developing effective prevention and mitigation strategies

PURPOSE
➢ To describe the early development of the Illinois Unidos (IU) coalition and provide selected descriptive findings of coalition members’ perceived effectiveness of its work

METHODS
➢ An online effectiveness survey was conducted in July 2020 (3 months after the group’s formation) using RedCAP
➢ The survey included questions about member demographics, organizational affiliation, and meeting attendance and an assessment of members’ perception of coalition leadership style, communication, facilitation of capacity-building among members, coalition operational procedures and structures, as well as conflict management and resolution
➢ Member satisfaction was gauged with a Likert scale

RESULTS

Table 1: Illinois Unidos Partnership Demographic Data

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>N (33)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
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<td></td>
</tr>
<tr>
<td>Under 25</td>
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<td>25-45</td>
<td>12</td>
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<td>46-60</td>
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<tr>
<td>61+</td>
<td>6</td>
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<tr>
<td>Sex at Birth</td>
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</tr>
<tr>
<td>Female</td>
<td>24</td>
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<td>Male</td>
<td>8</td>
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<td>Non-binary</td>
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<td>Prefer not to say</td>
<td>1</td>
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<tr>
<td>Education</td>
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<td></td>
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<td>High school</td>
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<td>0.0</td>
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<tr>
<td>Some college or 2-year Associate Degree</td>
<td>1</td>
<td>3.0</td>
</tr>
<tr>
<td>Trade or vocational school degree</td>
<td>0</td>
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<tr>
<td>College Degree: BA or BS (4 yrs of college)</td>
<td>11</td>
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<tr>
<td>Masters degree</td>
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<tr>
<td>Doctoral degree</td>
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<td>30.3</td>
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<tr>
<td>Other</td>
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<td>3.0</td>
</tr>
<tr>
<td>Ethnicity</td>
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<tr>
<td>No</td>
<td>1</td>
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<td>Puerto Rican, Boricua, New York Rican</td>
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<td>30.3</td>
</tr>
<tr>
<td>Cuban or Cuban American</td>
<td>1</td>
<td>3.0</td>
</tr>
<tr>
<td>Mexican, Mexican American, or Chicano</td>
<td>14</td>
<td>42.4</td>
</tr>
<tr>
<td>Central America</td>
<td>2</td>
<td>6.1</td>
</tr>
<tr>
<td>South America</td>
<td>4</td>
<td>12.1</td>
</tr>
<tr>
<td>Other Spanish, Hispanic, or Latino</td>
<td>1</td>
<td>3.0</td>
</tr>
</tbody>
</table>

RESULTS Cont.

CONCLUSIONS
➢ The COVID-19 pandemic highlighted the importance of advocacy in healthcare
➢ Participating in IU allowed members to both seek and offer resources for themselves, their communities, and patients
➢ The coalition continues to grow while meeting members’ expectations and needs

FUTURE DIRECTIONS
➢ Membership feedback has been incorporated to create different workgroups that allow more opportunities for engagement
➢ There are plans for a follow up survey, given the recent growth in membership

ACKNOWLEDGEMENTS
Thank you to all the volunteers of Illinois Unidos, especially founding members and co-chairs Xavier Nogueras and Cesar Rolon for their tireless commitment to social justice and health equity.
Characteristics of an early cohort of COVID positive patients at an Urban Emergency Department

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University of Illinois College of Medicine - Chicago

Contact: Aaron Case (case1@uic.edu), Marina Del Rios (mdelrios@uic.edu)

Introduction

• COVID-19 has affected the lives of millions globally, with underrepresented minority groups disproportionately suffering from this deadly virus
• In Illinois, Hispanics represent the highest overall incidence of COVID, while in Chicago, age adjusted mortality rate in Hispanics is higher than in any other ethnicity
• While research has been growing on COVID-19 patients since the pandemic started, the patients diagnosed early in the pandemic were left out of most clinical trials and cohort studies.
• We examined the characteristics of an early cohort of COVID-19 positive patients at an urban academic teaching hospital Emergency Department (ED).

Methods

• Retrospective chart review was conducted to study patients who tested positive for COVID-19 in the ED in April 2020
• This hospital serves predominantly minority populations (with at least 70% patients Black or Latino).
• We conducted univariate analysis, followed by bivariate analysis (chi square and fisher’s exact test) to assess differences in characteristics.

Results

• In this early cohort of 81 COVID-19 patients, >50% were Hispanic and 32% were African American; 52% were females. Mean age was 44 (±15).
• Hispanics (46%) and Unknown (31%) ethnicity group were less likely to have female cases when compared to non-Hispanics (70%) (p=0.04).
• Hispanics were less likely to have private insurance and more likely to be uninsured (p=0.01) but had lower comorbidities. (Figure 1)
• Among those that had a chest radiograph, 83% of Hispanics had abnormal findings vs. 71% in non-Hispanics, p=0.36); however, respiratory rate was >18 in 39% of Hispanics vs. 56% of non-Hispanics (p=0.14).
• Return to Hospital (within 30 days) was more common in Unknown ethnicity group; however, was not statistically significant.

Conclusions

• Data demonstrates significant inequalities towards Hispanics in the ED with respect to insurance and severity of disease, with lower comorbidity yet more severe illness
• Given the lack of insurance, male predominance, and lower comorbidities, it is imperative to assess further disease characteristics and outcomes in this population
• There is a need to address health literacy and policy efforts to ensure increased access to healthcare in this population.
• Future studies should assess differences between the early and the later cohort of COVID-19 patients to explore how the demographics changed over time.

Figure 1: Distribution of demographic and clinical characteristics in the cohort of COVID-19 positive cases.
Charles R. Drew University and AltaMed Health Services: A Unique University and FQHC Collaboration to Implement a Health Careers Opportunity Program (HCOP) to Train Minority Students for Future Careers as Healthcare Providers

Hector Balcazar PhD, Marco Angulo MD, Roger Liu PhD, Khadijah Ojo EdD, Lilly Ojo MS, Anabel Arroyo, Vanessa Peña-García BA, Erick Leyva BA
Charles R. Drew University of Medicine and Science, AltaMed Institute for Health Equity
Email: AltaMedSummerProgram@AltaMed.org

Charles R. Drew University of Medicine and Science (CDU) was one of twenty-one institutions awarded a Health Careers Opportunity Program (HCOP) grant in 2018 through 2023. The five-year grant, funded by Health Resources and Services Administration (HRSA), was provided to help increase the number of minority students in the health career field. To help facilitate this goal, CDU partnered with AltaMed Health Services, a federally qualified health center (FQHC), that seeks to provide health services to medically underserved communities in East Los Angeles. As such, the CDU-AltaMed HCOP Academy was established due to overarching organizational missions and goals in order to create a six-week summer pre-health enrichment program aimed at increasing the number of health professionals committed to working in medically underserved communities.

• Over a span of two years, AltaMed and CDU have hosted 48 aspiring health professionals.
• To be admitted into the CDU-AltaMed HCOP ACE program, applicants have to be invested in serving the medically underserved communities in Southern California, be the first in their immediate family to attend college, and be interested in attending a health professional program.
• The 48 participants chosen are 91% Latino/a, 3% Black/African American, and 6% Asian Pacific Islander.
• The six-week summer program has four main pillars: tiered mentorship, health equity, clinical experience, and a scholarly activity component. The goal of the comprehensive curriculum is to provide early health career exposure through the tools and knowledge necessary to serve medically underserved communities.

Purpose

Methodology

Results

Purpose

Methodology

Results

Conclusion

The CDU-AltaMed HCOP ACE Program was designed to prepare participants from disadvantaged backgrounds to health professional careers through a robust curriculum. The unique partnership between an academic institution and an FQHC provides participants with the exposure and essential tools to become a competitive applicant for health professional programs. The desired outcome of this program is to increase the number of participants who matriculate into health graduate and professional programs across the United States. To facilitate this outcome, program participants are supported with longitudinal follow-up via the pre-health advisor with three individualized advising sessions one year following program completion.
Direct Primary Care (DPC) preference survey among individuals who do not have health care insurance

Omar Matuk-Villazon, M.D., M.B.A., Adepoju Omolola, PhD, University of Houston College of Medicine, Houston, Texas

**Introduction**

DPC is a new method of delivering primary healthcare services in which patients pay a modest monthly fee for a broadly defined spectrum of primary care services, not including medical subspecialties or hospital services.

We propose to identify and quantify key data elements of patient preference for such a model, as well as the financial viability of the program.

**Aim**

To conduct a market analysis on the consumer preferences of uninsured and underinsured individuals regarding a direct primary care model and evaluate their attitudes towards “up-front” pricing in healthcare versus the traditional insurance model.

**Methods**

The Direct Primary Care (DPC) preference survey was sent to 9 different organizations via a clickable link between 10/1/2020 and 11/1/2020. There were two language versions of the survey; the participants could choose to respond in English or Spanish.

Details of the survey are included in Appendix 1. The survey received IRB approval from the University of Houston, Committee for the Protection of Human Subjects.

**Preliminary Results**

Appendix 1 provides a description of the overall sample, stratified by insurance status. Although 1323 individuals responded, only 392 had complete responses, and are described in table 1.

About half of respondents were females and over 60% self-identified as Hispanic. 38% reported having a college degree or an advanced degree, 42% were engaged in full-time employment and 61% reported an annual income of $40,000 or less. The average age was 45 years.

64% of respondents reported seeing a physician in the past year but only 25% receive care in a Community Health Center. Self-reported receipt of government benefits ranged from 8% (SNAP), 7% (Harris Health Gold Card), to 12% (multiple benefits).

Health insurance status is evenly distributed among the sample (n=392). Approximately 45% of the sample has health insurance and 55% does not have health insurance.

Regarding price, 73% found $60 to be attractive (6-10) while 59% found $80 attractive.

**Most Important Direct Primary Care Plan Feature**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price Per Month</td>
<td>24%</td>
</tr>
<tr>
<td>50% Specialist Discount</td>
<td>15%</td>
</tr>
<tr>
<td>Same Care Team</td>
<td>15%</td>
</tr>
<tr>
<td>50% Rx Discount</td>
<td>15%</td>
</tr>
<tr>
<td>50% Hospital Discount</td>
<td>15%</td>
</tr>
<tr>
<td>50% Lab Discount</td>
<td>22%</td>
</tr>
</tbody>
</table>

**Discussion**

The most important DPC model features listed are comparable between the insured and uninsured.

However, it appears that a greater proportion of those who listed price per month as the most important feature do not have health insurance.

Health insurance status may drive an individual’s appeal towards the cost-effective features of direct primary care plans.

Texas being a non-Medicaid expansion states faces with the reality of having 20% + uninsured population.

A low-cost-consumer based primary care insurance seems to be a viable option for patients in order to have access to healthcare.

**Future Plans/ Timeline**

To expand the survey to a larger national population to validate the results.

To gather data from the pilot clinic currently running.

**Questions**

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@omatuk
Direct Primary Care (DPC) preference survey among individuals who do not have health care insurance

Omar Matuk-Villazon, M.D., M.B.A., Adepoju Omolola, PhD, University of Houston College of Medicine, Houston, Texas
INTRODUCTION

The Environment, Leiomyomas, Latinas, and Adiposity Study (ELLAS) is an NIH-funded prospective cohort study of reproductive age Latinas/x based in Southeast Michigan. Although the Latin community is one of the fastest growing populations in the United States, this population continues to be underrepresented in research. It is well known that US racial minorities, including Latinas/x, receive poorer quality health care for a wide variety of conditions than their white counterparts. Sociodemographic and financial factors play a large role in health outcomes in this group. It is important to understand how these factors shape the doctor-patient relationship and contribute to daily discrimination amongst Latinas/x.

PURPOSE

To learn the different sociodemographic aspects that affect the doctor patient relationships in Latinas/x

To recognize which sociodemographic aspects play a role in discrimination in the daily life of Latinas/x

METHODOLOGY

Participants were recruited in a community health center with experience serving the Latin population in Detroit.

Demographic information was collected including age, education level, country of birth, and language preference via bilingual interviewers.

Participants were asked to complete the Interpersonal Processes of Care and Discrimination in Everyday Life Surveys.

Univariable and multivariable linear regression models were used for statistical analysis.

RESULTS

A total of 573 Latina/x people ages 21-50 years were enrolled and completed the first study visit.

- Older age, lower BMI, not having attended college, income <$30,000/year, being born outside the US, and lower acculturation were associated with higher doctor-patient relationship scores.
- In multivariate analysis only older age and lower acculturation were associated with higher relationship scores.
- Having attended college, income ≥$30,000/year, being born in the US, higher acculturation were associated with a higher discrimination score.
- In multivariate analysis only having attended college and being born in the US were associated with higher discrimination scores.

CONCLUSIONS

- It is important to understand the different social aspects that can affect the doctor-patient relationships and discrimination in everyday life of our patients and how the play a role in their overall health.
- More research is needed to understand why these sociodemographic aspects were associated with lower doctor-patient relationship scores and more discrimination in everyday life.

FUNDING

This research is funded by the National Institute on Minority Health and Health Disparities.
Engaging People Experiencing Homelessness in Primary Care
Jahanett Ramirez MD MPH, Liana Petruzzi LCSW, Timothy Mercer MD MPH, Lauren Gulbas PhD, Elizabeth A. Jacobs MD MPP
The University of Texas at Austin School of Social Work and Dell Medical School
Co-presenters: Jahanett.Ramirez@austin.utexas.edu and Liana.Petruzzi@austin.utexas.edu

Methodology

• Sample: 31 adults experiencing homelessness who are engaged in care at two different clinic sites (shelter-based or church-based), and 11 individuals who are not engaged in care
• Participants in the ‘engaged in care’ sample were included if they had at least two EMR-documented visits in the past year at either the ARCH (shelter-based) or Sunrise Clinic (church-based)
• Patients were included in the ‘not engaged in care’ sample if they had not seen a primary care physician in the previous 12 months
• Semi-structured qualitative interviews with open ended questions were conducted in-person by a MD and patients were verbally consented and compensated with a $20 gift card
• A multi-phased process of content analysis was used to identify themes across the transcribed interviews

Results

• Three models include a focus on comprehensive, coordinated, and integrated care delivery systems through case management and community collaborations that address physical, mental, and social determinants of health.
• However, despite widespread implementation of HCH programs across the country have adopted models of care that aim to reduce barriers to care and improve access.
• These models include a focus on comprehensive, coordinated, and integrated care delivery systems through case management and community collaborations that address physical, mental, and social determinants of health.

Qualitative Results: Themes

Patient Perceptions

- Homeless stigmatized
- Provider focus too narrow
- Confusion about care plan
- Desire to take care of one-self
- Poor mental health and substance use
- Provider communication and empathy

Facilitators to Care

- Convenient location
- Familiarity with location
- Familiarity with provider
- Provider/staff awareness
- Resource knowledge
- Co-located resources
- Mental health services

Structural Barriers to Care

- Chaotic environment
- Unknown of services
- Inconsistent providers
- Financial difficulties
- Short appointments
- Transportation difficulties

Demographics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Engaged (n=31)</th>
<th>Not Engaged (n=11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age (range)</td>
<td>54 (35-65)</td>
<td>46.5 (26-58)</td>
</tr>
<tr>
<td>Male</td>
<td>77% (24)</td>
<td>91% (10)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latinx</td>
<td>35% (11)</td>
<td>36% (4)</td>
</tr>
<tr>
<td>African American</td>
<td>30% (11)</td>
<td>64% (7)</td>
</tr>
<tr>
<td>White</td>
<td>15% (5)</td>
<td>2% (0)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than HS</td>
<td>35% (9)</td>
<td>64% (2)</td>
</tr>
<tr>
<td>Some College or more</td>
<td>35% (7)</td>
<td>28% (0)</td>
</tr>
<tr>
<td>Did not respond</td>
<td>3% (1)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Homelessness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(n=9, less than 1 year)</td>
<td>26% (30, 1-3 years)</td>
<td>18% (3, 1-3 years)</td>
</tr>
<tr>
<td>(n=1, 4 years or more)</td>
<td>35% (3)</td>
<td>30% (0, 1-3 years)</td>
</tr>
<tr>
<td>Insurance</td>
<td>77% (MAP insurance)</td>
<td>94% (MAP Insurance)</td>
</tr>
<tr>
<td>MIN-Cog Score</td>
<td>3.5 out of 5 points</td>
<td>4.1 out of 5 points</td>
</tr>
</tbody>
</table>

Quotes

“...If the doctor broaden their view on what to do for me. I had a doctor before that would just zoom in on one little problem. Somebody would look at my broad view from my head down to my toes, I know I got messed up ankle, messed up hip, messed up knee, bump in the head. You can’t isolate any of that area. You find out they got broaden the prescriptions instead of looking at one little spot at a time...”

– Engaged at Sunrise, Hispanic/Latinx participant

“...Just to be humble and to understand the needs of those people. Some of those people are hyper and have bad tempers. They have bad temper and don’t really know how to control their speech sometimes. Some of them have been on the streets, have been excluded, quite a few have never gone to school. They’ve been in prison and so on and so forth. So those people need special treatment...”

– Engaged at ARCH, Hispanic/Latinx participant

“...One-stop-shop is the best part. You want to get as much as you can get down in one day that you choose to leave your valuables behind versus your health. If you’re going to have to and you’re going to take a loss, you want it to count for something...”

– Not Engaged, Hispanic/Latinx participant

Conclusions

• Patients experiencing homelessness have unique needs and psychosocial stressors that require sensitivity from primary care providers and staff
• Convenience of services are essential, such as location, short clinic wait times and co-location of services

Future studies focused on the unique experience of Hispanic/Latinx adults are needed, as these communities continue to represent over one-fifth (22%) of all people experiencing homelessness (2019 Annual Homeless Assessment Report to Congress).

Clinical Interventions should address:

• Providing education and awareness to staff and providers regarding specific needs of homeless patients
• Addressing shared-decision making during the visit
• Fostering a sense of trust, compassion, and acceptance
• Emphasizing continuity of care, including consistent providers and staff, whenever possible.

Acknowledgements

The authors would like to acknowledge the Department of Internal Medicine at The University of Texas at Austin Dell Medical School, and support by grant T32HL140290 (Post-doctoral Training in Promoting Health Equity in Cardiovascular Disease), awarded to the Steve Hicks School of Social Work at The University of Texas at Austin by the National Heart, Lung, and Blood Institute, and from grants P2CHD042849 (Population Research Center) and T32HD007081 (Training Program in Population Studies), awarded to the Population Research Center at The University of Texas at Austin by the Eunice Kennedy Shriver National Institute of Child Health and Human Development.

Table 1. Baseline Characteristics of Patients

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<tr>
<th>Characteristics</th>
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</tr>
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</tr>
</tbody>
</table>

Quoted from the Annual Homeless Assessment Report to Congress.
Evaluation of a Bilingual Cultural Hispanic/Latinx Workshop About Diabetes for Pre-health and Health Professions Students

Reniell Iniguez, MS2, Pilar Ortega, MD,3, Yoon Soo Park, PhD, Jorge A. Girotti, PhD, MHA

1University of Illinois at Chicago, College of Medicine (UIC-COM), 2Department of Medical Education UIC-COM, 3Department of Emergency Medicine UIC-COM

Objectives

- Design and implement a novel bilingual cultural Latino health workshop on diabetes for pre-health and health professions students.
- Evaluate the workshop’s effectiveness in achieving educational objectives for learners of varying language proficiency, including heritage learners:
  1. Applying bilingual diabetes knowledge in language-appropriate discussions with Hispanic/Latinx individuals.
  2. Identifying common Hispanic/Latinx beliefs and practices related to diabetes.
  3. Describe the impact of clinician language and cultural skills on Hispanic/Latinx patients with diabetes.

Background

- Latinos have a disproportionate prevalence of diabetes and its complications.
- Linguistic and cultural concordance between patients and clinicians results in improved outcomes for Hispanic/Latinx individuals with diabetes.
- Spanish heritage learners and second-language learners should be trained and supported in gaining the cultural and language skills necessary to provide patient-centered care for Hispanic/Latino with diabetes.

Method

- The authors implemented a 1-hour bilingual cultural health topic workshop on diabetes at two different events for pre-health and health professions students enrolled in the existing MOLA mentorship program and the UIC Hispanic Center of Excellence LaHSEP program.
- IRB-approved online voluntary pre- and post-workshop surveys were collected for a total of 91 participants.

Results

Learner Responses to the Pre and Post-Workshop Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Pre-Test Mean</th>
<th>Pre-Test SD</th>
<th>Post-Test Mean</th>
<th>Post-Test SD</th>
<th>Difference Mean</th>
<th>Difference SD</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can accurately explain the definition of diabetes to a Spanish-speaking person</td>
<td>2.38</td>
<td>0.83</td>
<td>1.47</td>
<td>0.73</td>
<td>0.91</td>
<td>0.91</td>
<td>1.17</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>I can accurately explain the definition of diabetes to a non-Spanish speaking person</td>
<td>2.20</td>
<td>0.84</td>
<td>1.42</td>
<td>0.62</td>
<td>0.77</td>
<td>1.05</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Participants strongly agreed that learning common Hispanic/Latinx cultural belief and practices related to diabetes was very good</td>
<td>2.00</td>
<td>0.74</td>
<td>1.27</td>
<td>0.49</td>
<td>0.73</td>
<td>1.23</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Participants strongly agreed that learning common Hispanic/Latinx cultural belief and practices related to diabetes was very good</td>
<td>1.96</td>
<td>0.67</td>
<td>1.42</td>
<td>0.54</td>
<td>0.53</td>
<td>0.88</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Participants strongly agreed that learning common Hispanic/Latinx cultural belief and practices related to diabetes was very good</td>
<td>2.04</td>
<td>0.82</td>
<td>1.47</td>
<td>0.62</td>
<td>0.58</td>
<td>0.81</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Participants strongly agreed that learning common Hispanic/Latinx cultural belief and practices related to diabetes was very good</td>
<td>1.82</td>
<td>0.91</td>
<td>1.44</td>
<td>0.76</td>
<td>0.38</td>
<td>0.46</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Participants strongly agreed that learning common Hispanic/Latinx cultural belief and practices related to diabetes was very good</td>
<td>1.31</td>
<td>0.51</td>
<td>1.13</td>
<td>0.34</td>
<td>0.18</td>
<td>0.42</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>Participants strongly agreed that learning common Hispanic/Latinx cultural belief and practices related to diabetes was very good</td>
<td>1.69</td>
<td>1.94</td>
<td>1.29</td>
<td>0.55</td>
<td>0.40</td>
<td>1.12</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Participants strongly agreed that learning common Hispanic/Latinx cultural belief and practices related to diabetes was very good</td>
<td>1.36</td>
<td>0.46</td>
<td>1.20</td>
<td>0.40</td>
<td>0.16</td>
<td>0.36</td>
<td>0.02</td>
<td></td>
</tr>
</tbody>
</table>

Key findings:

- Statistically significant improvement in confidence with discussing cultural concepts with Latino patients.
- After the workshop, participants perceived greater impact of health professional language and cultural skills on patient care. Participants reported increased confidence that pursuing language and cultural skills will result in better care for Latino patients with diabetes or for diabetes prevention.
- The workshop was effective across learners with variable Spanish-proficiencies.
- High perceived class usefulness. All participants felt the workshop was valuable (44/51, 86%) strongly agreed and 14% agreed that they learned valuable cultural skills.

Conclusions

- Additional bilingual workshops are needed to evaluate and understand the potential of adopting a bilingual pedagogy to prepare health professionals to care for Hispanic/Latino communities.
- Bilingual educational training modalities may be an effective means for helping Spanish heritage learners and second-language learners acquire a deeper understanding of the role of culture on health decisions in Latino communities.
- This course may represent an opportunity for replication at other institutions to promote the acquisition of important cultural skills necessary for the proper treatment of diabetes in Latino communities.

Acknowledgements

- Medical Organization for Latino Advancement (MOLA)
- Hispanic Center of Excellence (HCE) at the University of Illinois Chicago’s Latino Health Science Enrichment Program (LaHSEP)

References:

EXAMINING RELATIONSHIPS AMONG PHYSICAL ACTIVITY, SOCIAL HEALTH AND SOCIOECONOMIC STATUS IN PREGNANT WOMEN

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AUTHORS: Marleny Carmona, MS3, Christopher P. Connolly, PhD, Ari A. B. Choi, Karen K. Warren, MS3, Kathryn E. Staudinger, MS3, Farion Williams, MD, Washington State University

PURPOSE:

To investigate relationships among physical activity behaviors, measures of social health, and socioeconomic status among pregnant women.

BACKGROUND

There are many social determinants of health, as shown in Figure 1. Our study focused on income, social support, and physical activity. Low SES factors such as low education, low income, and unemployment have shown to be risk factors for postpartum depressive symptoms (1). More, loneliness increases the risk of mortality, and physical activity might be a mediator of loneliness-mortality associations (2). The current ACOG recommendations for exercise are that pregnant women should take part in at least 150 minutes of moderate-intensity aerobic activity every week (3). Recommendations for exercise are that pregnant women should take part in at least 150 minutes of moderate-intensity aerobic activity every week (3).

METHODS

In 2019, pregnant women (n=295) completed a questionnaire in Tri-Cities, WA. Pregnant women ages 18 to 45 were recruited in prenatal health clinics and received a $10 Amazon gift card for their participation after completing the questionnaire, which took about 15 minutes. The questionnaire asked about weekly physical activity (min/week), basic demographics (including socioeconomic status), number of consistent interactions and relationships with others, and perceptions of loneliness. To examine social health, we utilized the Social Network Index (SNI) to measure social interactions and ULCA Loneliness Scale to measure loneliness. Both measures of social health have been psychometrically validated. SNI has three variables: number of high-contact roles, number of people in social networks, and number of embedded networks. We only used the number of high-contact roles as a score for SNI. We divided income into five categories.

RESULTS

Income was not related to moderate to vigorous physical activity (MVPA) participation or physical activity that met the recommendations for pregnant women by the American College of Obstetricians and Gynecologists (ACOG). Income was correlated with women’s high contact social roles (r=0.225 with P < 0.001), and it was inversely correlated with perceptions of loneliness (r=−0.15, P<0.05). High-contact social roles were associated with MVPA (r=−0.33, P<0.05) and meeting ACOG recommendations (r=−0.31, P<0.05). Naturally, perceptions of loneliness and the number of high-contact social roles were significantly correlated (r=−0.36, P<0.001). Perceptions of loneliness did not relate to MVPA or meeting ACOG recommendations. The physical activity variables assessed in this study were also significantly correlated (r = −0.38, P<0.001), as expected.

CONCLUSION

• Our findings indicate that income was not significantly related to physical activity behavior.
• Higher income was significantly related to having more social interactions and decreased perceptions of loneliness.
• Pregnant women with higher social interactions participated in MVPA at significantly higher rates and met ACOG physical activity recommendations at higher rates.
• We suspect that low SES is a possible health equity concern for pregnant women as low SES is related to disadvantages to social health, which showed to be related to physical activity behavior.
• It is essential to find potential barriers that low SES women face to help optimize their social health and physical activity behaviors.

Table 1. Pearson correlation of income

<table>
<thead>
<tr>
<th>Correlation Coefficient</th>
<th>r</th>
<th>P-value</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income-Meanings</td>
<td>0.014</td>
<td>0.82</td>
<td>0.049</td>
</tr>
<tr>
<td>Income-MVPA Participation</td>
<td>0.048</td>
<td>0.43</td>
<td>0.000</td>
</tr>
<tr>
<td>Income-High Contact Social Roles</td>
<td>0.225</td>
<td>0.000</td>
<td>-0.360</td>
</tr>
</tbody>
</table>

Table 2. Pearson correlation of high social contact roles

<table>
<thead>
<tr>
<th>Correlation Coefficient</th>
<th>r</th>
<th>P-value</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Social Contact Roles-Meanings</td>
<td>0.127</td>
<td>0.02</td>
<td>0.000</td>
</tr>
<tr>
<td>High Social Contact Roles-MVPA Participation</td>
<td>0.132</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>High Social Contact Roles-High Contact Social Roles</td>
<td>0.380</td>
<td>0.000</td>
<td>0.000</td>
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</tbody>
</table>

Table 3. Pearson correlation of loneliness

<table>
<thead>
<tr>
<th>Correlation Coefficient</th>
<th>r</th>
<th>P-value</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loneliness-Meanings</td>
<td>-0.019</td>
<td>0.76</td>
<td>0.048</td>
</tr>
<tr>
<td>Loneliness-MVPA Participation</td>
<td>-0.155</td>
<td>0.43</td>
<td>0.000</td>
</tr>
<tr>
<td>Loneliness-High Contact Social Roles</td>
<td>-0.315</td>
<td>0.000</td>
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</tr>
</tbody>
</table>

REFERENCES

Purpose

Hispanic employment in construction has grown significantly over the years. The study objective was to examine disparities in health and health service utilization between Hispanic and white, non-Hispanic construction workers using national survey data.

Methodology

This study analyzed data from the 2014–2018 National Health Interview Survey (NHIS), a nationally representative household survey. The NHIS sample adult (aged 18 or older) file was subset to include Hispanic and white, Non-Hispanic construction workers. All five years of data were pooled together, and the survey weights, strata, and clusters were used to account for the complex survey design. Self-reported general health, healthcare utilization, health insurance coverage, and delays in medical care were compared between Hispanic and white, non-Hispanic construction workers using chi-square tests. All numbers in charts were calculated by authors.

Results

Racial/ethnic composition of construction workers, National Health Interview Survey, 2014-2018 (average)

<table>
<thead>
<tr>
<th>Race/ethnicity</th>
<th>Unweighted N</th>
<th>Weighted N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>1,435</td>
<td>3.0 million</td>
<td>32.6%</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>3,722</td>
<td>6.2 million</td>
<td>67.4%</td>
</tr>
<tr>
<td>Total</td>
<td>5,157</td>
<td>9.2 million</td>
<td>100%</td>
</tr>
</tbody>
</table>

Age distribution of construction workers, Hispanic versus white, non-Hispanic

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>% of workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-29</td>
<td>24.6%</td>
</tr>
<tr>
<td>30-39</td>
<td>33.6%</td>
</tr>
<tr>
<td>40-49</td>
<td>21.3%</td>
</tr>
<tr>
<td>50-59</td>
<td>24.6%</td>
</tr>
<tr>
<td>60+</td>
<td>3.9%</td>
</tr>
</tbody>
</table>

*chi-square p<0.001

Percentage of construction workers born outside of U.S. or receiving the NHIS in a non-English language, Hispanic versus white, non-Hispanic

*chi-square p<0.0001

Family income of construction workers, Hispanic versus white, non-Hispanic

*chi-square p<0.0001

Education of construction workers, Hispanic versus white, non-Hispanic

*chi-square p<0.0001

This work was supported by the National Institute for Occupational Safety and Health (NIOSH), Grant No. U60OH009762. Any errors in this presentation are the authors’ sole responsibility.
**Health and Health Services among Hispanic Construction Workers, 2014-2018**

*Samantha Brown, MPH*, Raina Brooks, MPH, Xiwen Sue Dong, DrPH  
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This work was supported by the National Institute for Occupational Safety and Health (NIOSH), Grant No. U60OH009762. Any errors in this presentation are the authors' sole responsibility.

### Conclusion

Hispanic employment in the construction industry has grown significantly over the years. However, this study found that overall health and access to health services among Hispanic workers lag behind that of their white, non-Hispanic counterparts.

- **General health:** Despite Hispanic construction workers being younger (on average) than white, non-Hispanics, they were less likely to report that they had "very good or excellent" health (64.6% versus 69.1%). This could be in part due to differences in SES observed between the two groups.

- **Healthcare utilization:** Compared to white, non-Hispanics, Hispanic workers were less likely to have recently visited a doctor (visited doctor <1 year ago: 52.2% versus 74.2%) or to have a usual place for medical care (57.5% versus 78.7%).

- **Barriers to access:** Hispanic workers reported delayed medical care more frequently than white, non-Hispanics workers (21.9% versus 17.2%). This could be related to immigration status and potential language barriers. They were also more than twice as likely to be uninsured (50.7% versus 17.4%).

To address the health of this growing population, further action is needed to improve insurance coverage and healthcare services for Hispanic construction workers.

<table>
<thead>
<tr>
<th>Time since last saw healthcare professional, construction workers, Hispanic versus white, non-Hispanic*</th>
<th>Self-reported general health rating of construction workers, Hispanic versus white, non-Hispanic*</th>
<th>Usual place for medical care, care delays, and health insurance coverage among construction workers, Hispanic versus white, non-Hispanic*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White, non-Hispanic</td>
<td>Hispanic</td>
</tr>
<tr>
<td>% of workers</td>
<td>Fair or poor</td>
<td>Good</td>
</tr>
<tr>
<td>0%</td>
<td>5.9%</td>
<td>7.3%</td>
</tr>
</tbody>
</table>

*chi-square p<0.001 |

<table>
<thead>
<tr>
<th>Time since last saw healthcare professional, construction workers, Hispanic versus white, non-Hispanic*</th>
<th>Self-reported general health rating of construction workers, Hispanic versus white, non-Hispanic*</th>
<th>Usual place for medical care, care delays, and health insurance coverage among construction workers, Hispanic versus white, non-Hispanic*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White, non-Hispanic</td>
<td>Hispanic</td>
</tr>
<tr>
<td>% of workers</td>
<td>&lt;1 year</td>
<td>1-5 years</td>
</tr>
<tr>
<td></td>
<td>74.2%</td>
<td>62.2%</td>
</tr>
</tbody>
</table>

*chi-square p<0.01 |

*Delayed medical care in past year due to cost, inability to get appointment soon or to get through by phone, doctor's office closures or long wait times, or lack of transportation.
Influenza Vaccine Uptake among Underserved Latinx Middle-Aged and Older Adults in South Los Angeles

Background. Vaccination is a powerful prevention tool in the fight against seasonal influenza, among older, underserved, Latinx adults. Despite this, vaccine hesitancy and inconsistent uptake across this heterogenous population continues to be a substantial public health challenge. A better understanding of factors that impact influenza vaccination behaviors in this group could result in more effective messaging and initiatives promoting universal vaccination among Latinx. This timely exploration may also shed light on similar challenges facing the wide-spread dissemination of the COVID-19 vaccine among aging Latinx.

Purpose. We aimed to explore influenza vaccination uptake and associated co-variates among underserved, Latinx, older adults. We were interested in the role of sociodemographics, living arrangements, financial strain, access and satisfaction with medical care, and the presence of major chronic conditions and/or chronic obstructive pulmonary disease.

Methods. This cross-sectional survey recruited middle-aged and older Latinx residents of South Los Angeles (n=165), a historically under-resourced community of ~1 million in Los Angeles County. Latinx residents aged 55 years or older who had been diagnosed with diabetes and/or hypertension were recruited from senior centers and senior housing centers in the South Los Angeles Service Plan Area (SPA) 6. Bi-variate and multi-variate logistical regression were performed on survey data to explore independent correlates of influenza vaccination.

Findings. Almost half of underserved Latinx older adults in our study (45%) reported influenza vaccination within the 12 months prior to the study. The majority (~85%) reported receiving this recommendation from their primary care provider. However, one-third (30%) of those who received this advice did not get the vaccine. Multivariate logistic regression also associated a decreased likelihood of vaccination with living alone (p=0.026), lacking Medicare coverage (0.028), or experiencing higher levels of financial strain (0.020). Difficulty accessing medical care (p=0.008) or dissatisfaction with these experiences (p<0.001) were also strongly associated with a decreased likelihood of vaccination. Participants diagnosed with COPD had 9.5 (CI: 1.76 – 51.3) higher odds of being vaccinated compared to those without; no similar correlations were detected for diabetes mellitus, hypertension, or other heart conditions.

Discussion. A surprising aspect of this study was the number of Latinx elders who had received a flu vaccine recommendation from a provider but had not been vaccinated. This is consistent with studies among other aging, ethnic/racial minorities and highlight the pivotal role of the provider in wide-spread influenza vaccine adoption. Additional findings reflect known negative impacts of the Social Determinates of Health (SDoH) on preventive care efforts in this group. One striking finding of this study is the lack of a clear association between vaccination and diabetes mellitus, given the frequent monitoring needed to manage this chronic illness.

Conclusion. Findings from this study highlight the need for culturally informed messaging around influenza vaccine among aging Latinx in South LA. Further efforts to quantify associations between lower vaccine uptake and known SDoH are needed to recognize the effect of structural and human factors impacting vaccine uptake. These lessons may be leveraged to improve rapid dissemination of COVID-19 vaccines among this historically underserved group.
Lessons and Strategies Regarding Naloxone Distribution and Funding

Jason Richie, MS
University of California, San Francisco

**INTRODUCTION**
To present recommendations for local health officials designed to ensure the availability of cost-controlled naloxone doses, adjusted to fit a community’s unique mix of economic, demographic and geographic dynamics.

Cooperation between local health departments, state agencies and state legislatures remains critical. A coordinated approach is overdue, and would address a pressing need for overdose victims, their families, first responders and taxpayers. The funding of naloxone cannot be considered in fiscal isolation, albeit only from a twin perspective of healthcare and public safety.

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**METHODOLOGY**
Interviews and statistics from the Centers for Disease Control and Prevention’s Injury Center (CDC), the National Institutes on Drug Abuse (NIDA), the Massachusetts Department of Public Health’s and the West Virginia Department of Health and Human Resources.

**CASE STUDIES**

**Massachusetts**
- The Office of the Massachusetts Attorney General in partnership with partnered with Department of Public Health and state legislature created a fund (formally known as the Municipal Naloxone Bulk Purchase Trust Fund). The fund allows municipalities to purchase naloxone for use by first responders at a heavily discounted rate.

Data from the Massachusetts Department of Public Health demonstrates the extent to which Massachusetts’s bulk purchasing program has spearheaded both fiscal restraint and achievable opioid overdose prevention. Reviewing these records, nearly 1,300 people in Massachusetts died of an unintentional opioid-related overdose in 2014 (representing a nearly 60 percent increase since 2012) and among the highest in the United States during this time period. Regrettably, opioids now kill more people in Massachusetts than car accidents and guns combined. Absent naloxone however, the number of opioid overdose-related fatalities in Western Massachusetts would be 13 to 14 times higher.

**West Virginia**
- The West Virginia Department of Health and Human Resources (DHHR) purchased one million dollars of naloxone kits, equaling about 34,000 doses. Kits included a 2mg naloxone syringe and atomizer, purchased with funding from the state legislature to DHHR’s Office of Drug Control Policy. According to the DHHR, complete distribution entails 22 percent (7,800) of the doses to the West Virginia State Police (WVSP), 24 percent (6,200) to the State Fire Marshall’s Office for fire departments and 29 percent (10,000) to support EMS response.

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**RESULTS**

The opioid crisis is a central issue for health departments across the country. Irrespective of size, virtually every community faces rising challenges in treating opioid addiction that creates substantial budgeting issues for health/public safety regulators. What are the lessons health departments can incorporate into grant requests and policy planning?

During 2019-2020 legislative sessions, a range of opioid related bills were passed nationally resulting in new, one-time appropriations. Accordingly, many local communities receive their funding directly from the state, either via legislative or agency appropriations.

Communities maintain differing approaches to naloxone procurement and distribution, centered on a mixture of higher than average funding, interagency cooperation and predictive mapping among their respective local health departments. As a result, each demonstrated decreased opioid overdose deaths during a time period when stable funding and adequate doses of naloxone were available. The accessible data from these approaches sheds light on how larger variances in funding and adequate doses of naloxone were available. The accessible data from these approaches sheds light on how larger variances in funding and adequate doses of naloxone were available. The accessible data from these approaches sheds light on how larger variances in funding and adequate doses of naloxone were available.

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**CONCLUSIONS**

Strategies are presented with updated 2018-2019 era data and reflects the current landscape that incorporates new jurisdictional approaches, particularly asset forfeiture and lawsuits against pharmaceutical manufacturers. Endemic problems remain, although the combined efforts are limiting the supply of opioids to patients with conditions of medical necessity and expanding liability.

**RECOMMENDATIONS**
- **Price Stabilization:** Based on what has been learned in Massachusetts, we know that consistent stabilized pricing is helpful. Opposed to negotiating on a piecemeal basis, consistent pricing and application (particularly for cases where double or even triple doses are needed), will stabilize naloxone pricing. Even though there will be variation in the amount of naloxone used in any given year (particularly in communities with a high rate of transient population), departments and governments will be able to budget without fear of price spikes.

- **Expanded Public Education for Users and Family Members:** Educating the public on the risks associated with overdoses is crucial, however, particularly in local communities where the responsiveness of first responders can be substantially longer than in urban communities.

- **Passage of State Laws:** Spearheaded by local municipalities, Massachusetts, North Carolina and Washington have shown the benefit of enacting laws providing immunity for “good Samaritans,” including both family members as well as third-party bystanders. Overdose deaths have decreased in each state since legislation was enacted. In a study conducted five-years after the law’s passage, 75 percent of police officers surveyed felt it was important they were at the scene of an overdose to protect medical personnel, and a minority. Currently, 40 states offer some form of protection though a good Samaritan law.

- **Changes in Manufacturing:** Government guarantees for the purchase of naloxone, similar to influenza vaccines, could create a stable demand that may motivate additional pharmaceutical companies to begin manufacturing doses. Stabilizing the key chemical compounds that comprise naloxone are critical to achieve supply and demand.

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**CONTACT**
Jason Richie, MS
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BACKGROUND AND GOALS

- About 25% of women with IBD become pregnant after their diagnosis, infant born to mothers with IBD have been shown to have a less diverse and more pro-inflammatory gut microbiota compared to that of infants who were born to control mothers.
- Microbiota composition plays an important role in the development of the immune system in early stages of life. Thus, an unbalanced microbiome in early infancy and childhood may lead to an increased risk of immune-mediated diseases later in life. Therefore, changing the microbiota in infants of mothers with IBD may intercept the infant’s risk of developing IBD and other immune-modulated diseases.
- The MELODY (Modulating Early Life Microbiome through Dietary Intervention in CD) trial tests the efficacy of a non-invasive dietary intervention during the third trimester of pregnancy in modulating the transmission of the disease from the mother with IBD to offspring, while taking into consideration the genetic and environmental factors of the disease.
- The goal of the trial is to see whether the gut microbiota composition can be ameliorated for both pregnant women with CD and their infants via dietary intervention through the IBD-AID (antiinflammatory diet). Through this clinical trial, we hope to provide a deeper understanding of the origin of initial gut bacterial colonization in infants to improve the intervention targets and prevent the development of CD in high-risk individuals.

METHODS

**Inclusion & Exclusion Criteria**

**Arm 1: Crohn’s Disease + IBD-AID Diet**
- Healthy Controls

**Sample Collection**
- Infant Questionnaire
- Bristol Stool Chart
- Stool (Infant & Mother)
- Breastmilk
- MECONIUM
- Diet Questionnaires
- ROME IV

**Timeline**

<table>
<thead>
<tr>
<th>Pregnancy</th>
<th>Delivery</th>
<th>After Birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-29 w</td>
<td>37 w</td>
<td>6 mo</td>
</tr>
</tbody>
</table>

**Samples**

- Saliva
- Stool
- Umbilical cord blood
- Breast milk
- Meconium

**Questionnaires**

- Basic Info Q
- Health history/ Reproductive Q
- FFQ weekly throughout
- FFQ (diet arm only)
- FFQ (24HR)
- Follow-up Q
- IBD Rome IV
- 24HR

**Results**

- Accumulating evidence suggests that maternal health, perinatal environmental exposures and microbial colonization during early life exert marked effects on immune and metabolic programming in the baby with long-term health-related consequences, including the predisposition to IBD and other immune-mediated diseases.
- The MELODY trial is aimed to investigate if bacterial manipulation through diet during the 3rd trimester of pregnancy will improve the microbiome composition in the gut of CD patients and lead to the development of a healthier microbiome in the offspring.
- We considered a randomized study design for pregnant women with CD, however, this diet requires shopping, cooking, and planning skills in order to reach the dietary targets and prevent the development of CD in high-risk individuals.
- The MELODY trial is aimed to investigate if bacterial manipulation through diet during the 3rd trimester of pregnancy will improve the microbiome composition in the gut of CD patients and lead to the development of a healthier microbiome in the offspring.
- We considered a randomized study design for pregnant women with CD, however, this diet requires shopping, cooking, and planning skills in order to reach the dietary targets and prevent the development of CD in high-risk individuals.
- The goal of the trial is to see whether the gut microbiota composition can be ameliorated for both pregnant women with CD and their infants via dietary intervention through the IBD-AID (antiinflammatory diet). Through this clinical trial, we hope to provide a deeper understanding of the origin of initial gut bacterial colonization in infants to improve the intervention targets and prevent the development of CD in high-risk individuals.

**Conclusions**

- If successful, the IBD-AID™ could be applicable in clinical practice.
- Our study may inform the design of future large-scale intervention studies with the goal of primary risk prevention in high-risk babies born to mothers with immune-mediated diseases. We anticipate that both the expected (and unexpected) data outcomes from this study will stimulate further studies evaluating how the present protocol may be further pursued by the examination of feeding practices in moms, babies and children.
- We will also generate an extensive collection of serial samples and longitudinal clinical data, including identification of specific dietary components correlated with certain functional and quantitative bacterial patterns for future investigations.
Provision of Non-English Language Services in U.S. Mental Health Facilities

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2 Department of Psychiatry, Yale University School of Medicine
3 New England Mental Illness Research, Education and Clinical Center, U.S. Department of Veterans Affairs (VA)
Corresponding Author: hieronimus.loho@yale.edu

BACKGROUND
• To ensure high quality care, patients need to receive mental health services in their primary language.
• There has been little research examining the provision of non-English language services across the nation’s mental health facilities.

PURPOSE: National survey data were used to examine the provision and organizational correlates of non-English language services in U.S. mental health facilities.

METHODS
• Using data from SAMHSA’s 2018 National Mental Health Services Survey, we examined the differences between mental health facilities that provided non-English language services (n = 5186) and those that did not (n = 2317) across 23 organizational characteristics.
• Characteristics included: type of facility, funding sources, patient volume, number of services such as supportive housing, legal assistance, smoking cessation and others, and being located in the ten states with the highest percentage of people with Limited English Proficiency.
• Further analyses compared facilities that provided language services through on-call interpreters, multilingual staff, or both.

FUNDING
Research reported in this publication was supported by the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health under Award Number T35DK104689. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

69.1% of U.S. mental health facilities offer services in one or more non-English languages

Positive Associations:
• Hospitals (RR = 2.33)
• CMHCs (RR = 1.93)
• High Patient Volume (RR = 1.80)
• Public Ownership (RR = 1.70)
• Located in ten states with the highest percentages of people with Limited English Proficiency (RR = 1.59)
• Providing pro-bono care (RR = 1.51)
• Providing high number of specialized/support services (RR = 1.51)

Negative Associations:
• VA Medical Center (RR = 0.51)
• Residential Facility (RR = 0.33)
• Partial Hospitalization Facility (RR = 0.29)
• Private For-profit Ownership (RR = 0.53)
• Receiving no government funding (federal, state, or local) (RR = 0.23)

ADDITIONAL RESULTS
• Facilities relying exclusively on multilingual staff were more likely to be private for-profit and less likely to be publicly owned and hospitals.
• Facilities with only on-call interpreters were more likely to be hospitals and less likely to be located in a state with high LEP populations.

CONCLUSIONS
• Most U.S. mental health facilities provide language services, and most do so through on-call interpreters.
• Our study is limited by the self-reported nature of the data, lack of location specificity, and lack of analysis of policy and legislative effects.
• More research needs to be conducted on the access, quality and outcomes of language interpretation and other services related to immigrant patients’ mental healthcare.

The authors report no conflicts of interest.
Psychoeducational Intervention for Spanish-speaking Patients

Matilde Fredrickson, DO; Frances Respicio, LCSW; Bridget Harrison, MD, MPH
Stanford-O’Connor Hospital Family Medicine Residency Program

Background

The underutilization of mental health services by Spanish-speaking patients is a growing concern in the medical community. Many Spanish-speaking patients referred to a mental health provider do not follow up and have significantly higher rates of premature termination of treatment. A phone questionnaire was provided to nine Spanish-speaking patients with a diagnosis of depression to address the barriers they face in obtaining mental health treatment. The most significant barriers identified by patients included cultural barriers such as fatalism and familism, work constraints and transportation, and cultural insensitivity from providers. Using these results, a psychoeducational intervention was created to address these barriers.

Methods

I. Created Psychoeducational Intervention

- Trauma Informed Care
  - ACT Strategies
  - PACE
  - Assistive Speech
- Cultural Barriers
  - Medication
  - Therapy
  - Somatic
  - Self-compressive
  - Meditation

II. Implemented Intervention

Recruitment

- Indian Health Center of Santa Clara County
  - Native American/Alaskan Natives
  - Community of RotaCare
- RotaCare-San Jose
  - Free clinic located in East San Jose
  - Primarily serves uninsured Spanish-speaking patients
  - Over 80% uninsured
  - Spanish-speaking patients with depression.
  - Limited, discrete psychoeducational intervention as a step sensitive when treating Spanish-speaking patients for their mental health. This project with a small sample size of patients nonetheless demonstrated the feasibility of a limited, discrete psychoeducational intervention as a step in addressing the mental health needs of Spanish speaking patients with depression.

Results

I. IHC-Family Medicine Center Continuity Patients

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Before Intervention</th>
<th>1 month</th>
<th>3 months</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>40%</td>
<td>60%</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Therapy</td>
<td>0%</td>
<td>10%</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Exercise</td>
<td>50%</td>
<td>50%</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td>Medication</td>
<td>0%</td>
<td>20%</td>
<td>0.12</td>
<td></td>
</tr>
</tbody>
</table>

II. IHC-Meridian Non-Continuity Patients

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Before Intervention</th>
<th>3 months</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>12%</td>
<td>12%</td>
<td>0.00</td>
</tr>
<tr>
<td>Therapy</td>
<td>0%</td>
<td>10%</td>
<td>0.06</td>
</tr>
<tr>
<td>Exercise</td>
<td>15%</td>
<td>75%</td>
<td>0.05</td>
</tr>
<tr>
<td>Medication</td>
<td>0%</td>
<td>30%</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Discussion

Throughout this project, I realized many Spanish-speaking patients want to learn more about mental health. However, many of these patients have poor access to care or have cultural barriers with their current primary care providers. The lack of continuity with patients created a challenge to implementing this intervention at different clinic sites. Medication uptake rates might have been higher for non-continuity patients if medication had been prescribed during the intervention and if follow up with a provider in that same clinic had been arranged. After the intervention, only two patients started therapy sessions but stopped prematurely due to work constraints and language barriers. Many Spanish-speaking patients with depression will be treated for mental health issues solely by their primary care providers. Therefore, I believe it is crucial that PCPs learn basic therapy skills and are trained to be culturally-sensitive when treating Spanish-speaking patients for their mental health. This project with a small sample size of patients nonetheless demonstrated the feasibility of a limited, discrete psychoeducational intervention as a step in addressing the mental health needs of Spanish speaking patients with depression.

Recommendations

- Improve continuity with patients after the intervention
- Create an app to provide culturally-sensitive meditation and therapy
- Measure PHQ-9 scores in order to track depression severity

Acknowledgments

I want to thank my community partners, Indian Health Center and Rota Care, for allowing me to offer this intervention to their Spanish-speaking patients.

I want to thank Frances Respicio, LCSW and Lisa Dale Miller, LMFT for teaching me about trauma and its impact on health.

I want to thank the following faculty members for supporting my ideas: Bridget Harrison, MD, MPH, Grace Yu, MD, Katherine Mullina, MD, and Andrew Schachman, MD.

For Further Information

Please contact me at matildef@stanford.edu for more information.
Background: In response to COVID-19, hospitals have had to rapidly adapt their discharge planning protocols and have had to continue to adapt as new information continues to comes out. COVID-19 pandemic has highlighted the importance of discharge planning for patient care and has added a new element of public health in that we have to take all possible precautions to ensure that patients are not spreading the virus after they leave the hospital.

Purpose: Skilled and Unique Discharge Assessments to meet the needs of our most Vulnerable Populations.

Older adults- home safety evaluation, in-home visit by a visiting nurse on the day of discharge to verify the patient has everything they need when they arrive home, family support, ability to isolate.

Patients with mental health disorders, follow up care and compliance. Living conditions (street, car, as well as common comorbidities)

Homeless population-shelters, hotels, SNF’s, or other available resources.

Relevance: Outpatient follow up, management and compliance review to monitor worsening symptoms, needs, avoids readmission, cross contamination and putting the public at risk.

Discharge planning should begin at the time of admission. Assessment for safe discharge by the healthcare team involves several key factors that determine whether the patient will meet the requirements to heal and maintain health outside of a hospital setting.

These key factors include:
• patient’s physical ability to follow discharge instructions and perform activities of daily living
• patient’s psychological ability to understand and follow discharge instructions
• support system and financial means to obtain the appropriate follow-up care.

Consideration for COVID Patient’s:
Transportation to next destination
DME supplies
Isolation needs
Follow up care
Support system

Pandemic Coordination:
Assess if the patient will be able to maintain home-isolation recommendations (Does the patient have the ability to understand isolation recommendations? Does the patient have a psychiatric disorder or medical condition that may prevent them from maintaining isolation recommendations?).
• Assess if the patient’s home is suitable to adhere to isolation recommendations (Does the patient reside in a communal environment, such as a single-room occupancy, which shares bathroom or kitchen facilities?).

When discharging to a long-term care facility and the patient requires transmission-based precautions, adhere to the following recommendations:
• Prior to transfer, review precautions with the accepting facility to ensure that the facility has the proper personal protective equipment and ability to adhere to precautions.
• Preference should be given to facilities that already have cared for COVID-19 cases or have a unit designated for COVID-19 patients.

When discharging to a long-term care facility and the patient no longer requires transmission-based precautions:
• Symptomatic patients should be placed in single rooms and be restricted to their rooms.
• Asymptomatic patients require no further restrictions.

Conclusions:
Effective communication is fundamental to ensuring that patients become engaged in their care and, consequently, better equipped to follow discharge instructions and self-monitor after leaving the acute care setting.

A sustainable discharge strategy comprises identifying and addressing patient specific factors that could lead to readmission, education, developing a patient-focused after-care plan and ensuring a smooth transition to a post-acute setting.
AltaMed Health Services is a federally qualified health center (FQHC) system that provides care to more than 300,000 Southern California Residents through 39 accredited sites in Los Angeles and Orange County. Orthopedic surgeons have been the main specialty referral for musculoskeletal complaints, both surgical and non-surgical. As a result, there have been approximately 8,635 referrals over a 12-month period (October 2019-September 2020). Chart review of a small sample of these referrals indicate that approximately 90% of these referrals can be treated non-surgically by a primary care sports medicine physician. In October 2020, a sports medicine clinic was created at the East Los Angeles Commerce AltaMed Clinic, which was identified as the clinic that encompassed 12% of all orthopedic referrals throughout the AltaMed system. The purpose of this project is to assess the impact of having an in-house sports medicine physician regarding decreasing the number of referrals to outside specialty clinic for non-surgical treatments, increasing patient access to care at primary medical home and assess the costs to AltaMed.

We identified the AltaMed location at East LA Commerce as the top utilizer of orthopedic referrals from October 2019-September 2020 and subsequently began a primary care sports medicine clinic at this location in October 2020 where our in-house specialist dedicated half a day of clinic (0.1 FTE) per week. Since 2019, AltaMed has utilized EPIC as their electronic health records system. A chart review in EPIC was used to assess the change in the amount of orthopedic referrals over a two month span.

Prior to the start of the primary care sports medicine, the clinic averaged 84 referrals for orthopedic surgery. By creating a simplified referral process for providers, the number of referrals to orthopedic surgery decreased by 52 percent in the two months of implementation of the sports medicine clinic (0.1 FTE). The average number of referrals went from 84 to 40.

Figure 1 represents the number of orthopedic referrals placed by all providers at East LA Commerce.

Based on the results, by decreasing the number of referrals to orthopedic surgery and increasing clinic visits via sports medicine, we can create a sustainable model to ensure patients have continued access to much-needed services while having less barriers to care.

- Prospectively assessing the percentage of referrals to orthopedics and how many of these referrals can be seen with our primary care sports medicine clinic.
- If the patients were seen by orthopedics, what was the severity of their condition. This will allow us to know how many of our patients actually have conditions that cannot be treated through our sports medicine clinic and should in fact be seen by orthopedics (surgery candidates).
- Chart review for how many days it took for patients who were referred to sports medicine to actually be seen for sports medicine. This will be compared with the timeline in which it takes patients to see orthopedics.
- Chart review for the top referrals to orthopedics and sports medicine.
- Identify the financial impact on the organization.

Contact: alexandersoto@mednet.ucla.edu
Successful Recruitment Strategies during COVID-19 Among Underserved Hispanics/Latinxers with Type 2 Diabetes

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Purpose

- Type 2 Diabetes Mellitus (T2D) is one of the most prevalent chronic diseases currently decreasing life expectancy of patients.
- Hispanic/Latinx (H/L) have a 66% higher risk of being diagnosed with T2D than non-H/L whites.
- Diabetes Telehealth Management (DTM) is an innovative technology that has been shown to improve outcomes of T2D patients in general.
- Our ongoing mixed methods, randomized control trial (RCT) explores the use of DTM among underserved H/L patients with T2D.
- Due to the COVID-19 Pandemic, approaches to overcome risks to in-person recruitment and home laboratory services were identified and assessed in order to continue patient recruitment.

Methodology

- Risk reduction measures (Table 1) allowed the recruitment of patients with T2D.
- Both pre/post-COVID PAID-5 scores were >8 indicating possible diabetes related emotional distress at enrollment.
- Acceptance rates, reasons for refusal, and patient-reported diabetes-related emotional distress at enrollment measured by the Problem Areas in Diabetes scale (PAID-5) Short-form.
- Referrals were compared Pre- and Post-COVID-19: study participation rates, reasons for refusal, and patient-reported diabetes-related emotional distress at enrollment.

Funding

This work was supported through a PCORI award (No. 9185). None of the authors and do not necessarily represent the views of the PCORI, its Board of Governors or Methodology Committee.

Results

<table>
<thead>
<tr>
<th>TABLE 1 RISK-REDUCTION STRATEGIES IDENTIFIED AND MODIFICATIONS TO RECRUITMENT PROTOCOLS DUE TO COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCT Study Process Pre-COVID Post-COVID</td>
</tr>
<tr>
<td>Recruitment method   In-person, Physician Referrals Phone Recruitment, Mailing of research intro letters, Physician Referrals</td>
</tr>
<tr>
<td>Approach method      Before, after or during patient’s physician appointment Call patients to offer study participation up to three times over a one-week period</td>
</tr>
<tr>
<td>Collection of Outcomes Primary outcome variable In-clinic/lab site testing In-clinic/lab site testing with an option for in-home blood-draw services (free of charge)</td>
</tr>
<tr>
<td>Other variables     In-person survey administration Phone survey administration</td>
</tr>
<tr>
<td>Follow-ups and equipment delivery On-site during clinic visit and at patient’s home By phone and contactless delivery</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 2 PARTICIPANT RECRUITMENT REPORTING FOR PRE- AND POST-COVID-19 TIME PERIODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants Approached</td>
</tr>
<tr>
<td>Pre-COVID</td>
</tr>
<tr>
<td>Post-COVID</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 3 PARTICIPANT REASONS FOR REFUSAL PRE- AND POST-COVID-19 TIME PERIODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason</td>
</tr>
<tr>
<td>Declined at consent</td>
</tr>
<tr>
<td>Don’t need help</td>
</tr>
<tr>
<td>Don’t want to deal with diabetes</td>
</tr>
<tr>
<td>Don’t want to participate in research</td>
</tr>
<tr>
<td>Family approval needed</td>
</tr>
<tr>
<td>Liability Concern</td>
</tr>
<tr>
<td>No reason</td>
</tr>
<tr>
<td>No time</td>
</tr>
<tr>
<td>Not interested</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Too complicated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESULTS CONT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TABLE 4 AVERAGE TOTAL SCORES ON THE PAID-5 SHORT-FORM PRE- AND POST- COVID-19 TIME PERIODS</td>
</tr>
<tr>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Average total scores</td>
</tr>
<tr>
<td>Pre-COVID</td>
</tr>
<tr>
<td>Post-COVID</td>
</tr>
</tbody>
</table>

Note: A score of >8 indicates possible diabetes related emotional distress

Conclusions

- Risk reduction measures (Table 1) allowed the recruitment of patients to continue with minimal risk.
- Although acceptance rate is lower during Post-COVID, phone recruitment has facilitated an increase in total volume of patients approached, twice as many compared to pre-COVID – as by phone patients can quickly assess study participation – and enrolled about 25% more compared to Pre-COVID in the same six-month time period (Table 2).
- Reasons for refusal are shown in Table 3 and a higher proportion of patients reported having other reasons for refusing study participation post-COVID (i.e. patient did not call back, phone not in service).
- Both pre/post-COVID PAID-5 scores were >8 indicating possible distress and warrants further assessment. We posit that the constant contact by nurses (in both groups, telemonitored and outpatient management) provides comfort to underserved patients in a time of crisis, thereby minimizing the emotional stress related to diabetes during the COVID-19 pandemic.
- Although the study is focused on underserved H/L patients with T2D, home laboratory testing and phone recruitment were successfully implemented and should be explored by other studies where physical presence is not required.
Unity, Alignment, and Collaboration:

The Success of Appreciative Inquiry to Engage All Team Members in Improving High Blood Pressure for At-Risk Hispanic/Latino Adults in the Primary Care Setting

Julia M. Jurkiewicz, MSN, RN, NE-BC, ABM-BC, Orlando J. Penaloza, MD, FACP, AAHIVS, Sotero Rodriguez, LPN, Veronica Gonzalez, MBA, Victor Gonzalez Benitez, MD, Angela Olarte, CRNP, Betty Bohorquez, PA-C

Valley Health Partners Community Health Center, Allentown, Pa.

Background

- Centro de Salud (CDS), an internal Medicine health center treating the Hispanic Latino patient population, serves the highest risk patient population across all internal and family medicine practices at Lehigh Valley Health Network (LVHN) and Valley Health Partners Community Health Center (VHPCHC).
- CDS supports the quadruple aim of the Institute for Healthcare Improvement (IHI): Improved patient outcomes, patient experience, lower cost of care, and improved physician experience.
- Patients at CDS have multiple comorbidities impacted by their social determinants of health, putting them at risk for developing complications related to their uncontrolled hypertension.
- Hypertension in the United States has risen in prevalence, and management of this condition remains a problem due to challenges with self-management behaviors.
- The staff and providers at CDS utilize the Appreciate Inquiry (AI) model to support change management and quality improvement.
- AI supports a culture of conversation that is appreciative and inquiry-based, focusing on the strengths of each staff member, creating an environment where everyone thrives.
- Conversations in planning this project fueled productive and meaningful engagement—thus, generating exceptional outcomes.

Purpose

- To demonstrate the effectiveness of the AI model in fueling engagement, positive change, and self-efficacy while implementing interventions to help control patient’s blood pressure.
- Improving care quality, efficiency, and the health of the community by achieving better outcomes.

Goal

- Controlling High Blood Pressure quality metric for Centro de Salud was at 77.6%, threshold is 78.6%.
- To improve the Controlling High Blood Pressure metric: 1% each month, to 81.6%, within a 3-month period.

Methodology

- The staff and providers at CDS utilize the theory of Appreciative Inquiry to fuel engagement in closing care gaps.
- The 5-D Cycle of Appreciative Inquiry was incorporated into each intervention throughout the entire project: Discovery (explore what is), Dream (imagine what might be), Design (determine what should be), Destiny (create what will be), and a positive core.
- The PCDA cycle (Plan, Do, Check, Act) was the method used for continual improvement throughout the project:
  - Plan for initial interventions developed from reviewing baseline data.
  - Plan for adjustments developed from reviewing post-intervention data.
  - Plan for further adjustments developed from reviewing post-adjustment data.
- Clinical staff were re-educated on proper blood pressure measurement, conducted blood pressure checks for patients whose blood pressure was close to goal, scheduled provider appointments for high risk patients, and engaged in running their weekly reports to identify patients whose blood pressure was still not at goal.

Results

- In 3 months, the Controlling High Blood Pressure metric surpassed the project end goal, rising 6.4% to 84%.

Conclusions

- Utilizing the AI framework model for this project led to over-achieving the end goal of improving the blood pressure of a vulnerable Hispanic community.
- Outcomes demonstrated that AI increases positive emotions and builds the capacity of the staff to promote health behavior change and improve the health and well-being of the most vulnerable patient population.
- The interventions helped the staff sustain a healthy family-oriented culture that embraced change management and inspired ideas and results in a cooperative ability.
- Our experience suggests that using the Appreciative Inquiry framework model may result in improved quality outcomes in ethnic minorities and vulnerable populations.
- This strategy is basic, simple, and reproducible.
- Future research is required to address how Appreciative Inquiry impacts the quadruple aim regarding cost savings for a high-risk patient population with social determinants of health.

References


https://doi.org/10.1080/13557851003674997

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Understanding Hispanic/Latino participation in clinical trials and observational studies in the United States, and strategies to increase participation: A targeted literature review

Leticia Ferril1, Lorena Kurti1, Mauricio Ferril1, Brian Dreyfus1, Patricia Doykos1, Antonia Andonova1, Kimberly Hofer1, Mir Sohall Fazel1

1Brigham and Women’s Hospital, Boston, MA, USA; 2Endpoints Outcomes Research Inc., Vancouver, Canada

Research purpose

The primary objective of this study was to conduct a systematic review of the literature on Hispanic/Latino participation in clinical trials and observational studies in the United States, and to identify strategies to increase participation. We aimed to understand the factors affecting participation and to develop recommendations for improving recruitment and retention.

Methodology

Literature search

- Literature search was conducted using PubMed, EMBASE, and MEDLINE® from January 2010 to January 2020. Relevant articles were included.

Study selection & data extraction

- Eligible studies were those that reported on Hispanic/Latino participation in clinical trials or observational studies in the United States.

Evidence synthesis

- The results of the literature review were summarized, and strategies to increase participation were identified.

Results

Factors affecting participation

- Lack of awareness and knowledge about clinical trials and observational studies
- Language and communication barriers
- Cultural and social differences
- Financial and transportation costs
- Fear of side effects and health concerns
- Time constraints and work schedules
- Language and communication barriers

Strategies to increase participation

- Provide incentives
- Offer language translation services
- Use professional translators
- Use culturally appropriate recruitment materials
- Establish strong community partnerships

Conclusion

Hispanic/Latino participation in clinical trials and observational studies is crucial for advancing health equity and improving outcomes. Strategies to increase participation include providing incentives, offering language translation services, and establishing strong community partnerships. Further research is needed to understand the barriers and facilitators to participation and to develop effective recruitment strategies.

References

Understanding Hispanic/Latino participation in clinical trials and observational studies in the United States, and strategies to improve participation: A targeted literature review

Leticia Ferri1, Lorena Kurti1, Mauricio Ferri1, Brian Dreyfus1, Patricia Doykos1, Antonia Andonova1, Kimberly Hofer1, Mir Solhai Fazeli1

1Brigham Young University, Provo, UT, USA - Evolving Outcomes Research Inc., Vancouver, Canada

References

Utilization of Interpreter Services on a General Medicine Ward Service: A Multi-Modal, Iterative, Quality Improvement Project

Alberto Ortega, BS; Justine Ko, MD, MPH; Semi Han, MD; Lianne Ho, MD, MBA; Leslie Martínez, MSN-ED, RN; and Andrew Young, DO

Background
- 54% of Los Angeles County residents do not speak English as their primary language
- During the 2016-2017 fiscal year, 41.2% of patients at LAC+USC Medical Center identified Spanish as their preferred language
- Federal law mandates availability and use of interpreter services (IS) for all patients
- Multiple studies demonstrate a correlation between interpreter use and positive health outcomes

Introduction
- <50% of Internal Medicine (IM) house staff utilize IS during encounters with patients with limited English proficiency (LEP)
- <10% of survey respondents report fluency in another language

Objectives
1. Raise awareness on availability and importance of IS
2. Identify barriers to utilizing IS
3. Develop an intervention to increase the use of IS

Methodology
1. Didactic lecture during PGY-1 orientation
2. “Badge buddies”, laminated cards with interpreter service information
3. Interpreter contact information placed beside workstation phones
4. IM interns surveyed
5. IM interns audited
6. Patient Family Advisory Council interviewed

Results

<table>
<thead>
<tr>
<th>Provider Surveys</th>
<th>Nurse Care Coordinator Audits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of USes</td>
<td>Number of USes</td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interpreter Type Used (N = 88)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Person</td>
</tr>
<tr>
<td>Phone Interpreter</td>
</tr>
<tr>
<td>Family/Friend</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reasons Interpreter Not Utilized (N = 32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13% consistently use IS</td>
</tr>
<tr>
<td>68% felt their skills were sufficient</td>
</tr>
<tr>
<td>54.5% cited inefficiency</td>
</tr>
<tr>
<td>52% of interpreters were in-person or telephonic</td>
</tr>
<tr>
<td>Interpreter availability and time required to set up IS were recorded as major barriers</td>
</tr>
</tbody>
</table>

Patient Family Advisory Council
- Comprised of a group of patients, families, and care providers
- Meet monthly to gain community perspectives and input on quality improvement projects

Key Finding: Patients often feel a sense of “shame” and “embarrassment” when requesting IS

Intervention: Assign Interpreters to IM Wards Teams

<table>
<thead>
<tr>
<th>Goal</th>
<th>Intervention</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce barriers to IS utilization by improving efficiencies and destigmatizing IS use for patients with LEP</td>
<td>Assign an in-person Spanish interpreter to each inpatient ward service with an “opt-out” option</td>
<td>Increase in overall interpreter use</td>
</tr>
</tbody>
</table>

Conclusion
- Education alone is not sufficient to increase use of IS
- Improvements in logistical setup and one’s perception of their own fluency may lead to better utilization of interpreter services
- The Patient Family Advisory Council provided an innovative opportunity for real patients and community members to make valuable contributions to the project, and should be considered in future quality improvement efforts

Future Directions
- Assess patient experience of increased access to IS
- Encourage attending physicians to model IS usage to increase compliance by resident physicians

References
Prolapse and Incontinence Knowledge Questionnaire (PIKQ).

The objective of this study was to validate a Spanish version of the knowledge of pelvic floor disorders in Spanish-speaking women.

Currently, no validated questionnaires exist that evaluate still the most commonly reported reason for not seeking medical attention. Lack of knowledge in women with pelvic floor disorders is a valid and reliable Spanish version of the Prolapse and Incontinence Knowledge Questionnaire (PIKQ).

Methodology

- Validation and reliability testing of the Spanish version of the PIKQ was conducted in two phases.
- In the first phase, a translation-back translation method was utilized to generate a final Spanish translation of the PIKQ.
- 3 bilingual researchers independently developed 3 Spanish translated versions of the PIKQ. 3 additional bilingual researchers then independently back translated these 3 Spanish versions into English.
- The newly created English versions were then compared to the original PIKQ by 7 separate investigators.
- Each English back-translated item was compared to the original English PIKQ item on a 7-point Likert scale evaluating the comparability of language and the similarity of interpretation.
- The final Spanish version of the PIKQ was the version that corresponded to the best rated back-translated English version.
- In the second phase, bilingual women randomized to complete the Spanish or English version of the questionnaire first, followed by the alternate language version.
- Agreement between individual survey items from the PIKQ English and Spanish versions was assessed by percent agreement and kappa statistics.
- Intraclass correlation coefficients (ICCs) compared the overall PIKQ score and POP and UI subscores.
- To establish test-retest reliability, we re-administered the Spanish PIKQ 1-2 weeks after initial administration and calculated Pearson’s correlation coefficients. The mean age was 32 years (SD 9). Women were representative of diverse ethnic backgrounds comprised of 10 Latin American countries, the United States and Spain.
- 42% of these women considered both Spanish and English their primary language. The majority had college-level education (54%).
- Individual items showed 74-97% percent agreement, good to excellent agreement (kappa 0.6-0.89) for 9 items and moderate agreement (kappa 0.4-0.59) for 14 items between English and Spanish PIKQ versions.
- ICCs of the overall PIKQ score and POP and UI subscores showed excellent agreement (ICC 0.81-0.91).
- Pearson’s correlation coefficients between initial and repeat Spanish scores were high overall (r=0.87) and for POP (r=0.81) and UI subscores (r=0.77).

Results

- 57 bilingual women were randomized and completed all items from the final Spanish and English versions of the PIKQ.
- The mean age was 32 years (SD 9). Women were representative of diverse ethnic backgrounds comprised of 10 Latin American countries, the United States and Spain.
- 42% of these women considered both Spanish and English their primary language. The majority had college-level education (54%).
- Individual items showed 74-97% percent agreement, good to excellent agreement (kappa 0.6-0.89) for 9 items and moderate agreement (kappa 0.4-0.59) for 14 items between English and Spanish PIKQ versions.
- ICCs of the overall PIKQ score and POP and UI subscores showed excellent agreement (ICC 0.81-0.91).
- Pearson’s correlation coefficients between initial and repeat Spanish scores were high overall (r=0.87) and for POP (r=0.81) and UI subscores (r=0.77).

Conclusion

A valid and reliable Spanish version of the PIKQ has been developed to assess patient knowledge about urinary incontinence and pelvic organ prolapse in Spanish-speaking women.
Virtual Clinical Training During COVID-19: Evaluating An Online Patient Simulation Curriculum For 2nd Year Medical Students

Vanessa Peña-Garcia BA, Marco Angulo MD, Erick Leyva BA, Roger Liu Ph.D, Anabel Arroyo
Altamed Institute for Health Equity

Email: AltamedSummerPrograms@Altamed.org

Introduction

The most important part of medical education training comes from experiences gained in direct patient care. The goal of the Altamed Summer Program Virtual Clinical Experience is to increase the number of primary care physician leaders committed to careers in medically underserved communities. iHuman by Kaplan serves as a substitute for in-person clinical exposure. Altamed scholars have virtual clinical time embedded into the curriculum using Kaplan’s iHuman platform, supplemented by a variety of virtual workshops including presentations on mentoring and motivational interviewing. Through a tiered-mentorship approach, scholars (1) navigate a patient case with a faculty preceptor, (2) review the case with their designated partner (3) teach the case to pre-health scholars with the designated faculty preceptor. The Kaplan iHuman Virtual Patient Simulation aids students in building fundamental clinical competency and judgment skills that include full patient exam components: review, examination, diagnosis, and documentation skills. The diverse patient encounters include avatars that are programmed to behave and respond as naturally as possible.

Methodology

- Altamed PCLP scholars had 47 hours of virtual clinical time using Kaplan’s iHuman platform
- Clinical time was supplemented by a variety of virtual workshops including mentoring and motivational interviewing
- The program emphasized patient-centered communication and social determinants of health screening through a health equity lens
- A tiered-mentorship model was implemented

Kaplan iHuman Online Platform

Tiered-Mentorship Model

Mission-fit Faculty  Medical Student Scholars  Pre-Health Scholars

Mission-fit Faculty

- Health Equity Toolkit
- Mission-fit Faculty

“Secret” Source

2020 Altamed NMF PCLP Scholars Demographics
- 14 medical students
- 7% Asian / Pacific Islander
- 21% African American / Black
- 72% Latino/a
- 100% Committed to medically underserved
- 86% Confident in matching into residency
- 86% Confident in practicing at an FQHC

2020 Altamed NMF PCLP Scholar Testimonials
- “What I appreciated when Schiff was done was that the PCLPers remained the same clinical case to the UCPers in order to enhance their teaching skills.”
- “I am so impressed, she really understood the task to make sure we are an excellent online format. The team did an incredible job that schools are still trying to figure out.”
- “We were able to weed out… pre-health students, which projected us into an immediate leadership position of leadership. No one, do not, should have. We were able to apply our leadership training, instead of teaching leadership skills for future use.”

Results

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Average Pre Program Score (Max = 5)</th>
<th>Average Post Program Score (Max = 5)</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence in taking patient histories.</td>
<td>4.57</td>
<td>4.64</td>
<td>2%</td>
</tr>
<tr>
<td>I am confident that I know how to demonstrate patient-centered communication.</td>
<td>4.29</td>
<td>4.79</td>
<td>12%</td>
</tr>
<tr>
<td>Confidence in screening for social determinants of health.</td>
<td>4.14</td>
<td>4.79</td>
<td>16%</td>
</tr>
<tr>
<td>Confidence in conveying patient findings in a coherent manner.</td>
<td>3.93</td>
<td>4.57</td>
<td>16%</td>
</tr>
<tr>
<td>Confidence in gathering essential and accurate information about patients.</td>
<td>4.21</td>
<td>4.93</td>
<td>17%</td>
</tr>
<tr>
<td>Confidence in completing the disease findings of patients.</td>
<td>3.43</td>
<td>4.36</td>
<td>27%</td>
</tr>
<tr>
<td>Confidence in improving patient treatment and management plans.</td>
<td>3.21</td>
<td>4.14</td>
<td>29%</td>
</tr>
<tr>
<td>Confidence in performing a physical.</td>
<td>3.57</td>
<td>4.71</td>
<td>32%</td>
</tr>
</tbody>
</table>

Table 1. Scholars’ confidence in how to take a patient history and physical, assess for social determinants of health, develop patient treatment and management plans, and how to demonstrate patient-centered communication all increased.

Conclusion

Community health centers have identified medical confidence, ethical behavior, and improved patient-provider relationships as key components to medically underserved patient care. The mission of the Altamed Summer Program Virtual Clinical component is to develop an optimized learning experience inclusive of the organization of scientific evidence and patient diagnosis, to have scholars eventually be junior faculty themselves as they teach back what they learn. Despite the virtual environment due to COVID-19, scholars clearly demonstrated improved communication, leadership and teaching skills that contribute to their professional toolkit, all while applying evidence-based medicine and working towards eliminating disparities in health care access and outcomes by providing superior quality health and human services.

References


Health Equity Toolkit Mission-fit Faculty “Secret” Source