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Implementing and evaluating an evidence-based intervention from the intensive care unit (ICU) setting into primary care using promotoras to reduce CA-MRSA recurrence and household transmission

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OBJECTIVES/SPECIFIC AIMS: Community-associated methicillin-resistant Staphylococcus aureus (CA-MRSA) skin and soft tissue infections (SSTIs) recurrence ranges from 16% to 43% and presents significant challenges to clinicians, patients, and families. This comparative effectiveness research study aims to disseminate, implement and evaluate whether an existing intervention, consisting of decolonization and decontamination procedures, which has been determined to be effective in hospital intensive care unit settings, can be implemented by Community Health Workers (CHWs) or "promotoras" conducting home visits prevent recurrence of CA-MRSA and transmission within their households for patients presenting to primary care with SSTIs. METHODS/STUDY POPULATION: In partnership with 3 Community Health Centers and 4 community hospitals in NYC, this study will recruit patients (n=278) with confirmed MRSA SSTIs and their household members. Participants are randomized to receive either a CHW/Promotora-delivered decolonization-decontamination intervention or usual care, which includes hygiene education. The highly engaged stakeholder team meets monthly to review interim results, identify areas for refinement and new research questions, and develop and implement strategies to improve participant engagement and retention. RESULTS/ ANTICIPATED RESULTS: MRSA and MSSA were found in 19% and 21.1% of wound cultures, respectively. 59.5% with MRSA + wound culture had one or more MRSA + surveillance culture; 67.8% with MSSA+ wound culture had one or more MSSA+ surveillance culture. The "warm handoff" approach, developed and implemented by the stakeholder team to engage patients from their initial consent to return of lab results and scheduling of the home visits, helped improve completion of baseline home visits by 14%, from 45% to 59% of eligible participants. Home visits have demonstrated that 60% of households had at least one surface contaminated with S. aureus. Of the surfaces that tested positive in the households, nearly 20% were MRSA and 81% were MSSA; 32.5% of household members had at least one surveillance culture positive for S. aureus (MRSA: 7.7%, MSSA: 92.3%). DISCUSSION/ SIGNIFICANCE OF IMPACT: This study aims to understand the systems-level, patient-level, and environmental-level factors associated with SSTI recurrence and household transmission, and to examine the interactions between bacterial genotypic and clinical/phenotypic factors on decontamination, decolonization, SSTI recurrence and household transmission. This study will evaluate the barriers and facilitators of implementation of home visits by CHWs in underserved populations, and aims to strengthen the weak evidence base for implementation of strategies to reduce SSTI recurrence and household transmission.

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# Let's talk about sex: Does language create a barrier to women reporting and receiving treatment for dyspareunia in the Spanish-speaking community? Natalie Eisenach, Kimberly Swan and Dani Zoorob

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OBJECTIVES/SPECIFIC AIMS: Dyspareunia is a type of female sexual dysfunction estimated to affect 8%–22% of women of all ages. There is concern that these statistics do not depict the true prevalence, because it frequently goes undiagnosed and untreated. By 2050, Latinos will make up 30% of the total population in the United States. As our patient population becomes more diverse, we need to ensure that our healthcare practices accommodate the changes. Our goals are to determine the prevalence of dyspareunia within our patient population and to identify if language impacts patients reporting symptoms of sexual dysfunction to their healthcare provider. METHODS/STUDY POPULATION: Our study is a convenience sample, cross-sectional survey of English and Spanish-speaking women, ages 18–45, who present to university-affiliated clinics. In total, 100 women from each language group will be studied. The survey will be completed in REDCap and will include the validated questionnaires for the Female Sexual Function Index (FSFI), Visual Analog Scales for pain, and Patient Global

Impression of Severity and Improvement. Additional data on demographics and patient discussion of pain with their healthcare provider will be collected. RESULTS/ANTICIPATED RESULTS: The demographic and pain discussion questions will identify reporting rates. The FSFI score will be used to identify patients with sexual dysfunction and dyspareunia and calculate the prevalence in each language group. The domains will be analyzed to assess variations between populations. DISCUSSION/SIGNIFICANCE OF IMPACT: Dyspareunia has a great impact on patients' quality of life when untreated. This study will allow us to identify barriers to diagnosing and treating cases of dyspareunia. If we detect differences in reporting rates between the language groups, future research could be tailored and conducted to identify the specific problems in communication. With this knowledge, we can improve how we discuss sexual health in clinic and ultimately improve quality of care for all patients.

2505

### Mixed emotions: Health care personnel's reactions to new accountabilities for health equity

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OBJECTIVES/SPECIFIC AIMS: Calls for health care organizations to promote health equity, through reducing health care disparities and addressing the social determinants of health, are growing and disrupt assumptions about equal care and the role of the health care delivery system more generally. This paper uses qualitative data to explore the emotions that health care personnel express as they make sense of the newfound emphasis on equity. To do so, we consider the relationships between social identity, sense of control, emotion, cognition, and action. METHODS/STUDY POPULATION: The principle investigator conducted 21 semistructured interviews with senior leaders and equity team members and 7 focus groups with providers and staff employed at one of Minnesota's largest health care system. The PI asked respondents to describe recent conversations about equity in their workplaces and to identify barriers and facilitators to addressing equity. Focus group participants were also asked to imagine colleagues' reactions—"what would they say, think, and feel" should they be asked to adapt practices to address the social determinants of health, community health, and healthcare disparities. Interviews and focus groups were audiotaped and transcribed. Two coders independently coded each transcript for themes and then compared and reconciled their coding. Reactions to equity work emerged inductively during the coding process. RESULTS/ANTICIPATED RESULTS: Findings suggest that discourses on health equity can disrupt personal and professional identities and trigger a mixture of emotions, including fear, sadness, and excitement. Personnel with broad, or flexible, constructions of their work roles experienced less disruption, and more positive emotions, than those personnel who constructed narrow, or rigid, professional identities. Those who expressed a stronger sense of control also expressed more positive emotions, such as happiness and hope, and were excited about the prospect of greater accountabilities related to equity. Those who doubted the existence of disparities were defensive and pointed to cues such as standardized care protocols and perceptions of colleagues' professionalism to oppose change. Those who perceived low organizational self-efficacy, due to a lack of time, skills, or knowledge, often expressed frustration and helplessness. Their sensemaking focused on the lack of progress and sought sensegiving about ways to "make it workable." DISCUSSION/SIGNIFICANCE OF IMPACT: Discussions about equity are new in healthcare and trigger mixed reactions, drawing out provider and staff's hopes, fears, and anxieties. Variations in emotional reactions may be related to differing perceptions about sense of control over disparities and the social determinants of health. If we want to enlist health care providers, nurses, and managers in efforts to improve health equity, we need to understand these emotions and sensemaking processes.

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## Parental perspectives on factors affecting participation in family centered rounds: Impact of technology use in trainee presentations

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OBJECTIVES/SPECIFIC AIMS: Family centered rounding on pediatric inpatient units improves communication and family satisfaction. While the use of electronic medical record based devices and resources as part of the rounding process allows for immediate access of information and real time order management, there is limited data concerning parental perspectives' about technology use on rounds, and about factors affecting participation during family centered rounds more generally. Our objectives were to examine parental (1)

perspectives on factors that affect their participation during family centered rounds and (2) resource preference (tablet, computer on wheels, paper notes) used by trainees and the reasons for said preference. METHODS/ STUDY POPULATION: We performed a cross-sectional study with Englishspeaking parents who were present for multidisciplinary family centered rounds and whose children were admitted to the inpatient pediatric unit at a tertiary care academic medical center. Parents were surveyed after rounds to ascertain their opinions on factors affecting their participation in rounds, preferences in respect to the resource used by trainee, and whether they believed the resource used on rounds that day affected their understanding or participation in rounds. Parents were also asked to articulate the reasons behind their preferred resource. Responses were analyzed using descriptive statistics, and qualitative responses were analyzed for themes. RESULTS/ ANTICIPATED RESULTS: In total, 40 parents enrolled. Common responses regarding factors affecting parental participation included: information was explained in way that was easy to understand (90%), parents' understanding of the medical information (85%), eye contact with the medical team (78%), if the medical team asks for parent input (75%), and the health of the child (70%). Fewer parents (23%) believed that the type of resource used affected their participation. Tablets were the preferred technology resource (33%) due to their portability, ease of accessing information, and that they encouraged interaction with the patient. Fewer preferred computers on wheels (27%) and paper notes (5%). In total, 35% of parents reported no preferred resource. No parents said that tablets were their least preferred resource. Reasons computers on wheels were least preferred (13% of parents) included their large size and that they limited eye contact, whereas, parents stated that paper notes were least preferred (13% of parents) because they were old-fashioned, easy to lose, and not accurate; 68% of parents stated the resource used did not affect their understanding on rounds that day, and 83% asserted the resource had no effect on participation. DISCUSSION/SIGNIFICANCE OF IMPACT: Clear and engaging communication during family centered rounds is most important to parents' participation. The type of technology resource used is less relevant, but parents favor the use of tablets when they report a preference. Given the convenience for providers, tablet utilization as part of a family centered, trainee based rounding process has potential benefit.

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### Psychological mechanisms linking food insecurity and obesity

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OBJECTIVES/SPECIFIC AIMS: The current pilot study will use a mixed methods approach to investigate the role of psychological mechanisms in the relationship between food insecurity and obesity. We will be the first to assess 4 key psychological constructs (delay discounting, grit, future time perspective, and subjective social status) in a sample of food secure and food insecure adults with and without obesity. The specific aims are: (1) Examine associations among psychological mechanisms, food security status, and body mass index (BMI); and (2) Collect qualitative data on psychological mechanisms linking food insecurity and BMI. METHODS/STUDY POPULA-TION: This is a cross-sectional, observational pilot study that will be conducted in the local Baton Rouge community. The target study sample is 56 food secure and food insecure women and men aged 18-49 years with a BMI of 20.0 kg/m<sup>2</sup> or greater. Independent (grouping) variables are food security status and BMI. Primary endpoints are 4 psychological constructs measured via questionnaires: (1) delay discounting, (2) grit, (3) future time perspective, and (4) subjective social status. We will also assess a number of key covariates, including health literacy, sociodemographics, food assistance use, and dietary quality. Semistructured, in-depth interviews will be conducted in a subsample of 12 participants. RESULTS/ANTICIPATED RESULTS: For quantitative data, we will test for significant associations between food insecurity, obesity, and selected psychological mechanisms via bivariate correlations and linear and logistic regression models. Qualitative data will be analyzed to identify key themes and concepts that conceptually link the aforementioned psychological mechanisms to food insecurity and obesity. Analyzed qualitative data will be triangulated with quantitative findings. DISCUSSION/SIGNIFICANCE OF IMPACT: This pilot study will examine the role of psychological mechanisms in the relationship between food insecurity and obesity. Moreover, we are gathering data to identify potentially new intervention targets that will be used to develop intervention strategies aimed at reducing health disparities by effectively promoting weight management among low socioeconomic populations.

2460

### Qualitative study of obesity risk perception, knowledge, and behavior among Hispanic taxi drivers in New York

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OBJECTIVES/SPECIFIC AIMS: To access obesity risk perceptions, knowledge and behaviors of Hispanic taxi cab drivers and develop a better understanding of the factors that influence health outcomes in this population. METHODS/ STUDY POPULATION: Focus groups were conducted at NYC H + H/Lincoln, where subjects were screened and recruited from taxi bases with the help of the local Federation of Taxi Drivers. This was done by utilizing flyers, messages through taxi-base radios, and referrals from livery cab drivers. Approval from the local Institutional Review Board was obtained. The research investigators, developed a structured focus group procedural protocol of open-ended interview questions related to cardiovascular disease. Participants for the focus groups were older than 18 years old and working as livery cab drivers in NYC for at least 6 months. Three focus groups were held with informed consent obtained from each participant in their primary language before the start of each session. After completion of the focus group, participants received a gift voucher for attending the approximately 1-hour session. Focus groups were moderated by trained research staff members at Lincoln. Three main categories of questions were organized based on perception, knowledge, and behavior. Participants were questioned on topics about obesity, CVD and diabetes knowledge; knowledge about etiology, risk perception, possible prevention and interventions. Responses were recorded using audiotapes and transcribed verbatim. If participants did not elaborate on the initial question, a probing question was asked to clarify. The transcript was translated from Spanish by trained bilingual staff and analyzed using standard qualitative techniques with open code method. Four research investigators read the transcript separately and formulated concepts, which were then categorized and formulated into dominant themes. These themes were then compared and analyzed with a group consensus to ensure representative data. Once recurring themes emerged and the saturation point was reached, the study concluded, after enrolling 25 participants. The Health Believe Model (HBM) was employed to understand and explain the perceptions and behaviors of taxi drivers. HBM is one of the most widely recognized models and is used to understand, predict and modify health behavior. HBM helps to identify perception of risks of unhealthy behavior, barriers for having healthy behavior, actions taken by patients to stay healthy, self-efficacy and commitment to goals [12]. RESULTS/ ANTICIPATED RESULTS: Of the 25 Hispanic livery cab drivers, 92% were male. The majority of taxi drivers that participated in the study were immigrants (96%), with a mean age of 53 years (ranged 21-69), and 92%, were spoke Spanish. In total, 52% participants identified themselves as Hispanic, 20% White, 4% Black, and 20% did not identify their race. Mean body mass index (BMI) was 31 (22.8–38.7) kg/m<sup>2</sup>. In all, 56% were obese and another 40% were overweight. From this sample, 50% had been diagnosed with hypertension and 27% were living with diabetes. In all, 64% had a high school education or higher. Answers provided by the taxi drivers to focus group questions were recorded, reviewed and divided into 8 dominant themes based on concepts that emerged from the focus groups discussions. (a) Focus group study findings: Themes recorded during the focus group discussions, include poor diet, sedentary lifestyle, comorbidities/risk factors, stress, health not being a priority, discipline, education, and intervention. Participants shared their opinions in regards to these themes with minimal differences, making an emphasis on the fact that the nature of their profession was the root cause. Of the themes, the top 3 dominant themes include poor diet, sedentary/lifestyle and comorbidities/risk factors. (1) Diet: The theme "Poor diet" evolved from 151 related concepts that were described by participants. All 25 participants perceived their diet as bad due to eating high-fat meals associated with the cultural food and restaurant chains with lower food prices and ease of car parking. Drivers also reported that they did not have enough time to eat healthy foods based on their long working hours. They say: "comemos muy tarde por que preferimos montar un pasajero" ... stating that they preferred to pick up passengers and delay their meals. However, they consider poor diet as the most decisive factor in their increased risk for obesity, diabetes, and hypertension. (2) Life Style: The theme "Sedentary lifestyle" was derived from 147 similar concepts described by participants. They believe that physical inactivity is another leading risk factor for obesity, diabetes, and CVD. The demands of the profession force them to drive more than 10 hours per day. They understand the importance of daily exercise but they admit that at the end of the workday they are too tired to exercise or "stop working" to participate in exercise as this means less money. They also understand that family history of obesity in addition to poor diet increases their risk of obesity, diabetes, and cardiovascular risks. (3) Comorbidity: The theme "Comorbidities" developed from 143 concepts grouped together. Taxi-drivers perceived that obesity complications directly