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

Brianne M. D’Orazio1, Jonathan N. Tobin1, Rhonda G. Kost2, Chanamara Khalida1, Jessica Ramachandran3, Minna Pastagi4, Teresa H. Evering1, Maria P. de la Gandara1, Cameron Coffman1, Joel Correa da Rosa2, Kimberly Vasquez2, Getaw W. Hassen4, Francisco Barsanti5, Satoko Kanahara6, Regina Hammock1, Rosalsee Nguyen1, Mark Trezza1, Trang Gisler8, Hermenia de Lencastre2, Alexander Tomasz2 and Barry S. Coller2

OBJECTIVES/SPECIFIC AIMS: Community-associated methicillin-resistant Staphylococcus aureus (CA-MRSA) skin and soft tissue infections (STIs) recur 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)/Promotoras delivering home visits to 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 high 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 phenotypic factors on decolonization, decontamination, 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.

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

University of Kansas Frontiers

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 with their healthcare provider will be collected. RESULTS/ANTICIPATED RESULTS: The demographics 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 care 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.

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

Brooke Cunningham1, Windy Fredkove2, Alden Lai3, Dimpcho Orionzi2 and Jill Marsteller3

1 CTI, University of Minnesota; 2 University of Minnesota School of Nursing; 3 Johns Hopkins Bloomberg School of Public Health

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 disrupting 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, reasoning, 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 time and effectiveness of the ways they were working, “I can’t 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.