

diverse communities. (2) Help clinicians and researchers develop patient-centered communication skills needed for more frequent and meaningful engagement of research participants. (3) Identify additional service support needs of clinical research teams not currently offered by other centers (e.g., translation services by certified translators, access to bilingual/bicultural research staff) so they can effectively recruit diverse communities. **METHODS/STUDY POPULATION:** Mixed methods evaluation approaches centered on obtaining community and academic input aimed at revising the tool to enhance its feasibility and relevance. Round one of focus groups were conducted (4), 2 with a diverse group of community stakeholders, 2 with a diverse group of academic stakeholders. Focus group feedback guided HLCR Assessment Tool revisions. This round of focus groups, served as an opportunity for community and academic stakeholders to discuss shared and divergent priorities related to the development and utilization of the tool. Feedback from these sessions guided a second set of revisions to the tool. Brief surveys were administered at each time point to gather participant demographic data. For the first round of focus groups with community stakeholders, 2 diverse groups totaling 19 people participated (11 female, 7 male, 1 no answer; 6 Asian/Pacific Islander, 6 Black/African American, 4 Latino/Hispanic, and 3 White/Caucasian). Participants served a variety of populations including seniors, youth, underserved, Muslim Americans, Bangladeshi, Arab, South Asian, refugees, community health centers, service organizations, 1st generation students, Latinos, multi-ethnic groups, limited English speaking, people with lupus, un/underinsured, people with HIV, Korean Americans, African Americans, and the disability community. Data pending on the first round of focus groups with academic stakeholders. All participants of the first round of focus groups will be invited to return to a second round of focus groups (2), this time only 2 groups will be held, and these will combine community and academic participants in each focus group. **RESULTS/ANTICIPATED RESULTS:** Along with formatting and grammatical revisions, recurring recommendations focused on considerations/clarifications in 3 main areas: compensation for all stakeholders, developing a common language and clarifying terms, and aligning the research process with the community. Considerations around compensation was mentioned in discussions related to multiple tool domains. In particular, community stakeholders recommended inclusion and consideration of compensation not just for research participants but also community partners, sites, community representatives, and other academic partners. It was also very important to make sure the form of compensation for both community partners and participants aligns with what was being asked of them. Community stakeholders cited a few examples where they were involved in studies where the time and requirements for participation were not commensurate with the compensation they received or the study budget did not include compensation for community partner effort. Along with edits to questions in the HLCR Assessment Tool, community stakeholders also recommended education for budget/finance personnel on fair compensation for research participants and community partners. In both focus groups, there was also confusion around specific terms and an identified need to develop a common language and clarify terms among all those involved in the research process. More specifically, terms such as community, culture, community of focus, community partners, accessible, and convenient were identified as needing further definition or clarification. Through the focus groups, we learned the valuable lesson that it cannot be assumed broad terms or even seemingly specific ones will be interpreted the same by everyone or have the same meaning in different contexts. Therefore, it needs to be very clear what these terms mean and who or what they represent. Finally, the community stakeholders emphasized throughout both focus groups the importance of making sure that the HLCR Assessment Tool unpack and explicitly emphasize how the research process can align and should align with community needs, communication structures, influencers, and assets. Some factors community stakeholders suggested be considered were: (1) Where the researcher is in the research process; (2) How community members prefer to communicate with each other; (3) Stigma/biases (e.g., class) that may be pervasive in a particular community; (4) Identification of key community influencers/gatekeepers; (5) Learning about a community's assets along with their needs. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Currently, there is dearth of resources focused on increasing diverse engagement in clinical and translational research, and consequently, research teams have little or no knowledge or support for how or when to engage community partners in clinical or translational research. The goal of this project is to help fill that gap with a tool to guide clinical and translational research teams in assessing the health literacy and culturally responsive components of their research projects to improve recruitment of diverse populations. Feedback on the first iteration of the HLCR Assessment Tool helped us identify the priorities for community stakeholders and better understand their concerns and needs around engagement with academic partners in clinical and translational research. This understanding will help us enhance the relevance and usefulness of the HLCR Assessment Tool so that clinical and translational science researchers more effectively engage with community partners and help ensure the community's needs are better aligned with. Therefore, developing and pilot testing this tool can offer a significant opportunity for clinical and translational sciences institutions to enable their researchers and their teams to better understand, anticipate, and adapt to the cultural and

health literacy needs of diverse populations. More specifically, this tool can: (1) Help clinicians develop the patient-centered communication skills needed to facilitate more frequent and meaningful engagement of potential research participants during medical visits to truly make every healthcare encounter an opportunity for research. (2) Help clinical and translational sciences institutes identify additional service support clinical research teams will need access to in order to effectively recruit diverse communities, that are not currently not supported [e.g., translation services by certified translators, access to bilingual/bicultural research staff at all level (i.e., study coordinators, research assistants, etc.), etc.].

2148

Understanding the health effects of binding and tucking for gender affirmation

Tonia Poteat, Mannat Malik and Erin Cooney
Johns Hopkins Bloomberg School of Public Health

OBJECTIVES/SPECIFIC AIMS: Gender affirmation is a critical aspect of the health and well-being of transgender individuals. For many transgender people, this includes changing one's physical appearance to align with one's felt gender. Some gender-affirming body modifications require medical interventions such as hormone therapies and surgeries. Other modifications, such as tucking to create a flat-appearing lower pelvis and binding to create a flat-appearing chest, require no external intervention. The published literature is slowly growing on the health effects of gender affirming medical interventions; however, other body modifications are understudied. As part of our needs assessment of the transgender community, we sought to understand the frequency and health impact of binding and tucking. **METHODS/STUDY POPULATION:** A quantitative online survey was developed based on qualitative interviews with 20 community-based key informants. The survey was available online, in English, for 6 months. Eligible participants were 18 years of age or older, lived in the Baltimore metropolitan area, and identified as transgender and/or a sex different from what was assigned on their original birth certificate. **RESULTS/ANTICIPATED RESULTS:** 139 participants provided complete data: 45% were assigned male at birth (AMAB) and 55% were assigned female at birth (AFAB). In total, 54% were Black, 40% White, and 9% Latinx. Of AFAB participants, 80% had bound their chest tissue. Of those who had bound, 51% bound 7 days/week, 62% bound 8+ hours per day, and 68% were concerned about the health effects of binding. The most common symptoms associated with binding were back pain (65%), shortness of breath (48.6%), bad posture (32%), chest pain (30%), and light-headedness (30%). Of AMAB participants, 71% had ever tucked, 85% of those tucked 7 days per week, 79% tucked 8+ hours per day, and 50% were concerned about the health effects of tucking. Most common symptoms included itching (28%), rash (21%), testicular pain (17%), penile pain (14%), and skin infections (12%). **DISCUSSION/SIGNIFICANCE OF IMPACT:** The majority of transgender participants used binding or tucking for gender-affirming body modification and at least half of them have concerns about associated health effects. Clinicians should ask transgender patients about binding and tucking behaviors and assess for common symptoms. More research is needed to better understand the benefits and risks of gender-affirming binding and tucking behaviors.

2094

Validation of a set of "healthcare trust" scales for women seeking substance abuse treatment in community-based settings

Joshua Cockroft¹, Deondria Matlock² and Susie Adams³
¹ Vanderbilt University Medical Center; ² The Next Door, Inc;
³ Vanderbilt University School of Nursing

OBJECTIVES/SPECIFIC AIMS: To validate previously published psychometric scales capturing interpersonal or healthcare-related trust in a target population of women with a history of substance use disorder seeking substance abuse treatment in a community-based setting. **METHODS/STUDY POPULATION:** Participants are enrolled at The Next Door, Inc. (TND) and Renewal House (RH), 2 community agencies in metropolitan Nashville that provide substance abuse treatment and post-incarceration re-entry services for women with a history of substance use disorder. We will enroll 300 participants to provide sufficient power for statistical psychometric validation. Inclusion criteria include adult women with self-identified history of substance use disorder seeking substance abuse treatment within seven days of initiation of inpatient residential or intensive

outpatient treatment at TND or RH. Participants complete a one-time online survey comprising a demographics questionnaire, Rotter Interpersonal Trust Scale, Wake Forest Trust in Physician Scale, Revised Health Care System Distrust Scale, 5-item RAND Social Desirability Scale, and Adverse Childhood Events Survey. Participants then individually participate in a modified protocol of the "Trust Game." Predictor variables for multivariate analysis collected include age, race/ethnicity, gender identification, number of days in current treatment, number of prior substance abuse treatment programs, and number of adverse childhood events. RESULTS/ANTICIPATED RESULTS: Each individual scale will be assessed for item analysis, factor analysis, construct validity, content validity, and reliability and compared with general population sample values published in the literature. We will use multivariate analysis to determine the impact of potential predictor variables on specific types of interpersonal or healthcare-related trust. We anticipate having preliminary results to present in April. DISCUSSION/SIGNIFICANCE OF IMPACT: Women who seek substance abuse treatment in the community face unique challenges compared to their male counterparts, including higher rates of prior interpersonal trauma, co-occurring psychiatric diagnoses, and more serious physical health problems. Characteristics such as these highlight the need for regular healthcare engagement in the setting of an increased risk of decreased interpersonal or healthcare-related trust. Prior qualitative research demonstrates that trust building is seen as an essential component of care in ongoing substance abuse treatment for women in this population. Validation of psychometric healthcare-related trust scales in a population of women seeking substance abuse treatment in a community based setting will provide a framework for future quantitative inquiry into the impact of healthcare-related trust on health outcomes, healthcare engagement, and treatment retention for this target population. Similarly, it will also facilitate inquiry into the effectiveness of specific treatment programs or interventions on improving therapeutic trust building.

2451

Views of African American parent-child dyads on the immunization neighborhood to improve HPV vaccination rates

Jennifer Erves, Pamela C. Hull and Consuelo H. Wilkins
Vanderbilt University Medical Center

OBJECTIVES/SPECIFIC AIMS: To better understand African American (AA) parents and their adolescents perceptions towards the immunization neighborhood to improve HPV vaccination rates. METHODS/STUDY POPULATION: We conducted qualitative interviews among a purposive sample of 30 AA parent-child dyads. We engaged the community (community advisory boards, community organizations) in the design and implementation of this study. Before each interview, we provided participants a brief survey to assess acceptability of various vaccination settings (i.e., pharmacies, health departments, and schools). An inductive, qualitative content analysis approach was used to analyze the data, and a constant comparison method was used to compare codes for theme development. Descriptives (i.e., frequencies) were used to analyze survey data with the SPSS version 23 software. RESULTS/ANTICIPATED RESULTS: Findings demonstrate that many parents were willing to get their adolescents vaccinated at the health department ($n = 19$) followed by the pharmacy ($n = 17$). However, majority of parents were less willing to get their adolescent vaccinated at school ($n = 21$). Mixed results were found for children with many having positive attitudes towards alternative settings (health department = 21; pharmacy = 14; school = 16). Parents viewed the health department as being stigmatized and unclear for adolescent immunizations in general, while children were unsure of the difference between the health department and the medical home for the vaccine. Both parents and adolescents viewed the pharmacy as "too open" but would use it if a nurse administered the shot and had a good tracking system. Both also expressed strong feelings against school vaccinations, especially HPV vaccine shots. However, would consider for convenience or if administration was done by a nurse. DISCUSSION/SIGNIFICANCE OF IMPACT: Findings from this study provide intervention targets to improve access to HPV vaccination in alternative settings. It further demonstrates the importance of community engagement for the success of translational research, in which we will use it to disseminate this study's findings. Ultimately, this study could play a role in shifting the traditional model of the HPV vaccine being provided solely in the medical home to improve HPV vaccination rates.

SCIENCE AND HEALTH POLICY/ETHICS/ HEALTH IMPACTS/OUTCOMES RESEARCH

2314

(In)Adequacy of prophylactic central lymph node dissection for papillary thyroid cancer in the United States: An analysis of 18,755 patients

Keven Seung Yong Ji, Taofik Oyekunle, Julie A. Sosa and Sanziana A. Roman
Duke University

OBJECTIVES/SPECIFIC AIMS: The incidence of papillary thyroid cancer (PTC) has sharply increased in recent decades. Though thyroid resection is the best treatment modality, there is significant variation in practice involving use of prophylactic central lymph node dissection (PCLND) at time of thyroidectomy. Recently, a threshold number for lymph node (LN) yield was determined to assure adequacy of lymphadenectomy in evaluating occult nodal disease via PCLND for pathologic T3, clinical N0, M0 PTC patients, for whom guidelines recommend PCLND. This study assesses the prevalence of adequate prophylactic LN dissection (APLND) and determines its association with patient, and disease characteristics. METHODS/STUDY POPULATION: Adult patients receiving surgery for pT3 cN0 M0 PTC > 1 cm were identified from the National Cancer Data Base, 2004–2015. APLND for pT3 stage was defined as removing 8 or more LNs, based on recent literature. Univariate and multivariate logistic regression models were employed to determine factors associated with APLND and inadequate prophylactic LN dissection (IPLND). RESULTS/ANTICIPATED RESULTS: In total, 18,755 patients were included: 2905 (10.1%) had APLND; 15,849 (89.9%) had IPLND. Rate of APLND increased from 4.9% to 17.9% over the decade. Patients receiving APLND were younger than those receiving IPLND (47 vs. 52 years, respectively, $p < 0.001$). The proportion of cases found to be LN positive in the APLND group was 64.5%, while that in the IPLND group was 18.2% ($p < 0.001$). After adjustment, Whites were more likely than Blacks to receive APLND [OR 1.86 (95% CI 1.51–2.30), $p < 0.001$]. The adjusted OR of receiving APLND was higher at academic centers [1.76 (1.29–2.41), $p < 0.001$] and at integrated centers [1.77 (1.25–2.51), $p < 0.001$], compared with community facilities. After adjustment, patients with multifocal tumors were more likely to receive APLND than those with unifocal tumors [1.28 (1.17–1.41), $p < 0.001$]. Unplanned 30-day readmission rate was higher in the APLND group (2.4%) compared to the IPLND group (1.7%, $p < 0.001$); this remained significant after adjustment [OR for APLND 1.80 (1.31–2.47), $p < 0.001$]. There was no significant difference in the likelihood of receiving radioactive iodine between patients who underwent APLND versus IPLND [1.00 (0.90–1.00), $p = 0.6$]. DISCUSSION/SIGNIFICANCE OF IMPACT: APLND is associated with a higher likelihood of finding metastatic LNs, and an increased risk of unplanned short-term readmissions. The rate of APLND has increased over time, but still only a minority of thyroid cancer patients undergo adequate prophylactic surgery. Disparities exist based on patient, facility, and disease characteristics. Further work is needed to study the association between adequacy of dissection and disease recurrence.

2229

A community-academic translational research and learning collaborative to evaluate the associations among biological, social, and nutritional status for adolescent women and their babies using electronic health records (EHR) data

Jonathan Tobin¹, Amanda Cheng¹, Caroline S. Jiang¹, Mireille McLean¹, Peter R. Holt¹, Dena Mofteh¹, Rhonda G. Kost¹, Kimberly S. Vasquez¹, Daryl L. Wieland², Peter S. Bernstein³, Siobhan Dolan³, Mayer Sagy⁴, Abbe Kirsch⁵, Michael Zinaman², Elizabeth DuBois⁶, Barry Kohn⁷, William Pagano⁷, Gilles Bergeron⁸, Megan Bourassa⁸, Stephanie Morgan⁹, Judd Anderman⁵, Shwu H. Kwek¹⁰, Julie Wilcox¹¹ and Jan L. Breslow¹

¹ The Rockefeller University; ² Jacobi Medical Center, North Central Bronx Hospital; ³ Albert Einstein College of Medicine, Montefiore Medical Center; ⁴ Morrisania Diagnostic and Treatment Center; ⁵ Bronx Lebanon Hospital Center; ⁶ Community Healthcare Network; ⁷ NYU Lutheran Family Health Centers; ⁸ The Sackler Institute for Nutrition Science, The New York Academy of Sciences; ⁹ Montefiore Medical Center; ¹⁰ Community Healthcare Network; ¹¹ Clinical Directors Network, Inc. (CDN), NYU Steinhardt School of Culture, Education, and Human Development