

screening arm had 7.1 times higher odds (95% CI 5.7–8.8) of being identified as at-risk for suicide, 7.8 times higher odds (95% CI 4.6–13.1) of confirmed follow-up needs, and 4.0 times higher odds (95% CI 2.0–7.9) of initiating mental health treatment. Using a PHQ-8 screen potentially missed 30.2% of at-risk students (positive response to PHQ-9 item #9, but negative on the PHQ-8).

Conclusions: Even with a MDD screening tool, which is not optimized for suicide risk assessment, universal screening increased identification of and treatment initiation for suicide risk among identified adolescents. This both confirms the value of this approach and suggests a suicide-specific risk assessment may have even greater impact on treatment engagement of at-risk youth.

Sources of Support: Research reported in this publication was funded through a Patient-Centered Outcomes Research Institute® (PCORI®) Award (AD-2017C3-8752). The views presented in this publication are solely the responsibility of the author(s) and do not necessarily represent.

PLATFORM RESEARCH PRESENTATION II: CHARLES E. IRWIN JR. NEW INVESTIGATORS

25.

MOLECULAR BACTERIAL VAGINOSIS AND PROSPECTIVE RISK OF CERVICOVAGINAL CHLAMYDIA TRACHOMATIS INFECTION IN ADOLESCENTS

Luke Thomas Carlson, MD, MA¹, Mykhaylo Usyk, MD, MA², Nicola Schlecht, PhD³, Robert Burk²

¹Icahn School of Medicine at Mount Sinai; ²Albert Einstein College of Medicine; ³Roswell Park Comprehensive Cancer Center.

Purpose: Adolescents make up only a quarter of the population but account for over half of all incident sexually transmitted infections. Bacterial vaginosis has been associated with cervicovaginal Chlamydia trachomatis (CT), although the mechanisms of their association remain poorly characterized. This study investigated the prospective association between the cervicovaginal microbiome (CVM) and the risk of acquiring CT infection in adolescents.

Methods: We conducted a nested case-control study of CT within an HPV longitudinal cohort study of sexually active adolescents from a large adolescent health center in New York City. Controls were matched to incident (newly diagnosed) CT cases using risk set sampling based on age, date of study enrollment, and prior history of CT infection. For this study, cervicovaginal swab samples collected from three time points were analyzed: approximately six months before CT infection (V1), at the time of CT diagnosis (V2), and six months after infection treatment (V3). Clinical CT was diagnosed using a GEN-PROBE APTIMA assay. The CVM was evaluated using 16SV4 rRNA bacterial gene amplicon next-generation sequencing. Sequence reads were clustered into amplicon sequence variants using DADA2 and taxonomy was assigned using a custom cervicovaginal microbiome specific database employing a Naive Bayesian classifier. We assessed the presence of bacterial vaginosis (BV) using a previously validated molecular score from the 16SV4 reads (molBV) that provides a Nugent-like score on a scale from 0 - 10. At V1, 232/502 (46.2%) cervicovaginal samples were molBV-BV negative (score 0-3), 79/502 (15.7%) were molBV-BV intermediate (4-6), and 191/502 (38.0%) were molBV-BV positive (7-10). The relative risk (RR) of incident CT based on the molBV-BV score was assessed by comparing participants who were BV positive to those intermediate and negative using

multivariable conditional regression adjusting for patient BMI, number of sexual partners within the last 3 months, and condom use.

Results: 16SV4 rRNA gene amplicon sequencing yielded an average of 33,339±13,280 bacterial reads with no significant differences based on case status (p=0.08). Subclinical detection of BV by the molBV score at V1 significantly predicted risk of CT diagnosis at V2, 6 months later (RR=1.78, 95%CI=1.05-3.03). Adjusted cross-sectional analysis of V2 samples revealed an even stronger association between molBV-BV positive status and clinical detection of CT (RR=2.90, 95%CI=1.74-4.85), whereas following CT treatment (V3) there were no differences between cases and controls in their BV scores (p=0.5).

Conclusions: While it is known that having a clinical diagnosis of BV is associated with cervicovaginal CT, to our knowledge this is the first study to prospectively demonstrate an association between sub-clinical detection of BV by next-generation molecular sequencing of the CVM and the risk of acquiring a cervicovaginal CT infection.

Sources of Support: This work was supported in part by the National Institute of Allergy and Infectious Diseases (R01AI072204) and the Einstein Cancer Research Center (P30CA013330), and the Einstein-Rockefeller-CUNY Center for AIDS Research funded by the NIAID (P30AI124414).

26.

EXPLORING THE IMPACT OF RACISM ON BLACK YOUTH: A MULTIDIMENSIONAL EXAMINATION OF DISCRIMINATORY EXPERIENCES ACROSS PLACE AND TIME

Tyia Wilson, PhD¹, Alexander Riley, PhD¹, Susheel Khetarpal¹, Paul Abernathy⁴, Jaime Booth¹, Alison Culyba¹

¹University of Pittsburgh; ²University of Pittsburgh; ³University of Pittsburgh; ⁴Neighborhood Resilience Project.

Purpose: Black youth are disproportionately impacted by community violence. Experiences of racism and discrimination may confer additional stress and create greater challenges for youth attempting to recover following violence exposure. We know little about how experiences of violence and discrimination intersect over place and time as well how these intersections relate to changes in stress, post-traumatic stress, and safety. This study linked innovative social network and ecological momentary assessment (EMA) methods to elucidate how perception of racism may influence stress and perceptions of safety among Black youth following a violent event.

Methods: This project engaged 25 Black youth (ages 14-19 years old, 58% female) who had witnessed community violence within the past three months. Using an intensive longitudinal design, we sought to understand how the interrelatedness of people, places, and time may impact youth's recovery following exposure to community violence. Youth were recruited in partnership with community-based youth-serving programs and agencies in Pittsburgh, PA. A baseline survey assessed experiences of discrimination (Experiences of Discrimination Scale), stress (Cohen's global measure of stress), posttraumatic stress symptoms (PTS; Child PTSD Symptom Scale; CPSS-5) and also included an egocentric social network survey to identify key sources of support. Youth were given a cell phone with a mobile app, MetricWire, and were asked to complete EMA app-based surveys three times daily for two weeks about the spaces that they were in, the people they were with, and their current emotional state. EMA surveys prompted youth to report their in-the-moment perceptions of racism, stress, PTS symptoms, safety, and social support. A total of 513 EMAs were completed (49% response rate). Multilevel models

estimated the relationship between participants' perception of racism in a space and feelings associated with stress, PTS symptoms, and perceptions of safety. Models included both overall and momentary perceptions of racism in place to examine both time-dependent and time varying perception of racism.

Results: Overall, 76% of youth reported at least one experience of discrimination, with 36% reporting being called racially insulting names and 32% being hassled by the police. One third (36%) endorsed moderate to severe PTS symptoms. In multilevel models, youth who reported higher overall levels of perceived racism also reported higher levels of stress ($B=.50$, $p=.001$), PTS symptoms ($B=.52$, $p=.001$), and lower levels of perceived safety ($B=-.50$, $p=.000$). Youth's momentary perception of racism in a space was associated with lower levels of perceived safety in that space ($B=-.09$, $p<.01$).

Conclusions: There is sparse research on moment-to-moment experiences of racism and its consequences among Black youth who experienced violent events. Using an innovative intensive longitudinal design, we identified how being in spaces that youth perceive as discriminatory impacts feelings of stress, post-traumatic stress, and safety following a violent event. Interventions attuned to place-based experiences of discrimination may help to support recovery among Black youth exposed to violence.

Sources of Support: University of Pittsburgh CTSI's Research Initiative for Special Populations(NIH/NCATS UL1TR001857) NICHD - Eunice Kennedy Shriver National Institute of Child Health and Human Development National Institute on Alcohol Abuse and Alcoholism (NIAAA: T32 AA007).

27.

EMERGENCY CARE UTILIZATION FOR MENTAL AND SEXUAL HEALTH CONCERNS AMONG ADOLESCENTS FOLLOWING SEXUAL ASSAULT: A RETROSPECTIVE COHORT STUDY

Susan J. Wiener, MD¹, John Porter, MBA¹, Niloufar Paydar-Darian, MD¹, Michael Monuteaux, ScD¹, Joel Hudgins, MD, MPH¹

¹Boston Children's Hospital.

Purpose: Sexual assault (SA) is a prevalent public health issue that involves the violation of human rights and has various short-term and long-term impacts on health. Adolescents and young adults have the highest rates of SA victimization of any age group. Adolescent survivors of SA often present to the pediatric Emergency Department (ED), where the care they receive may impact their future mental and physical health trajectories. This study aimed to explore the health outcomes of adolescent survivors of SA, as measured by their subsequent emergency healthcare utilization for mental and sexual health concerns following an initial visit for SA.

Methods: This retrospective cohort study utilized the Pediatric Health Information System (PHIS) database, which contains clinical data from 49 children's hospitals. Thirty hospitals reported complete data during the study period and were included. The cohort population included adolescents aged 11-18 years old seen at a PHIS hospital with a primary diagnosis of SA between 2010-2017. The control population included age-matched, biological sex-matched adolescents seen at the same hospital during the same time-frame for a minor injury, including sprain or contusion. Participants were followed prospectively in the PHIS database through 2020 (or until age 22); subsequent ED visits during the follow-up period for suicidal ideation/attempt, sexually transmitted infection (STI), pelvic

inflammatory disease (PID), or pregnancy were identified by billing diagnosis codes. The risk of each outcome was compared between the SA and control populations using Cox proportional hazards models, with calculation of hazard ratios (HR) with 95% confidence intervals (95% CI).

Results: The study population consisted of 20,434 adolescents (10,217 SA cohort patients and 10,217 controls). The majority (91.7%) were female. During the study period, 8.2% of participants initially seen for SA returned to the ED due to suicidal ideation/attempt, compared to 4.6% of controls. ED return visit rates for sexual health concerns in the SA versus control groups were 1.9% versus 1.5% for STI, 2.3% versus 0.9% for PID, and 1.7% versus 1.1% for pregnancy. Adolescents in the SA cohort had a significantly higher risk of returning to the ED for suicidal ideation/attempt (HR 3.49, 95% CI 3.05-4.00), STI (HR 1.89, 95% CI 1.48-2.43), PID (HR 3.86, 95% CI 3.11-7.79) and pregnancy (HR 2.31, 95% CI 1.76-3.03), compared to controls.

Conclusions: In this retrospective cohort study of over 20,000 patients, adolescents evaluated in the ED for SA were at significantly greater risk for returning to the ED for suicidality and sexual health concerns, compared to controls. This is the first large-scale study to use healthcare systems data to demonstrate an increased frequency of adverse health outcomes requiring emergency care among adolescent survivors of SA across multiple hospitals. These findings highlight that adolescent survivors of SA experience health-related disparities, underscoring the need for increased allocation of both research funding and clinical resources to improve their emergency and follow-up care, as well as emphasizing the importance of advocating to bolster sexual violence prevention efforts.

Sources of Support: HRSA MCHB T71MC00009 LEAH training grant.

28.

EXAMINING LONGITUDINAL ASSOCIATIONS BETWEEN FUTURE ORIENTATION AND MULTIPLE FORMS OF YOUTH VIOLENCE PERPETRATION

Susheel Kant, Khetarpal, B.S.¹, Kwonho Jeong, M.S.¹, Kaleab Z. Abebe, PhD¹, Elizabeth Miller, MD, PhD², Alison Journey Culyba, MD, PhD, MPH²

¹University of Pittsburgh School of Medicine; ²UPMC Children's Hospital of Pittsburgh.

Purpose: Future orientation, defined as hopes and aspirations for the future, is gaining promise as a cross-cutting protective factor against youth violence. Much of the research on future orientation and violence to date has used cross-sectional designs, assessed limited violence outcomes, and focused on youth in suburban settings. Seeking to better characterize associations between future orientation and interpersonal violence over time, we assessed how baseline future orientation longitudinally predicted multiple forms of violence among a sample of male youth residing in neighborhoods with concentrated disadvantage across Pittsburgh, PA.

Methods: Data were drawn from a recently completed sexual violence prevention trial among a sample of predominantly African American male adolescents, ages 13 to 19, living in areas with high levels of community violence. Future orientation was measured using seven items that encompassed excitement about one's future, aspirational goal setting, and contributions to one's community, with each item rated on a 5-point Likert scale. Youth and community violence measures included a past 9-month history of weapon violence, 3-month history of bullying, and lifetime history of gang