

children. We aimed to assess the impact of recent systemic changes on these disparities. **METHODS/STUDY POPULATION:** Retrospective cohort study of pediatric patients utilizing data from the United States Renal Data System (USRDS) and Scientific Registry of Transplant Recipients (SRTR). We compared access to transplantation, time to deceased donor kidney transplant (DDKT), and allograft failure (ACGF) using Cox proportional hazards in the 4 years preceding KAS to the 4 years post-KAS implementation. **RESULTS/ANTICIPATED RESULTS:** Compared to the pre-KAS era, patients post-KAS were more likely to be pre-emptively listed (26.8% vs 38.1%, $p < 0.001$) and pre-emptively transplanted (23.8% vs 28.0%, $p < 0.001$), however these benefits were not uniform across racial groups. Only 12.7% and 15.7% of Black and Hispanic children received a pre-emptive transplant compared to 29.6%, 49.8% and 54.4% of White, Asian and Other race children respectively. Compared to White children, Black and Hispanic children had a lower likelihood of transplant listing within 2 years of first dialysis service aHR 0.67 (0.59-0.76) and 0.82 (0.73-0.92), in the post-KAS era. Time to DDKT after listing was comparable across all racial groups in both eras. Black children have disproportionately worse 5-yr ACGF, aHR 1.50 (1.08-2.09), $p = 0.02$. **DISCUSSION/SIGNIFICANCE:** After KAS implementation there remains equity in time to DDKT, however disparities persist in transplant listing and ACGF among Black children. Further studies are needed to identify granular SES factors impacting delayed referral and systemic barriers to transplant, as well as risk factors for poor allograft outcomes among minority children.

176

COVID-19 infection risk in patients with non-syndromic orofacial clefts during pandemic in Puerto Rico[†]

Yinayra Victoria¹, Natalio Debs², Augusto Elias³ and Carmen J Buxo⁴

¹University of Puerto Rico-Medical Science Campus-, ²University of Puerto Rico School of Dental Medicine (UPR SDM), ³Professor and Assistant Dean of Research (UPR SDM) and ⁴Associate professor & Director of the Dental Genomic and Craniofacial Core (UPR SDM)

OBJECTIVES/GOALS: Patients with nsCL/P are prone to infections due to their open like wound cleft and immune system susceptibility. COVID-19 affected nsCL/P patients access to care and treatment delays. This study will determine COVID-19 infection risk between children with nsCL/P compared to those unaffected. **METHODS/STUDY POPULATION:** Retrospective cohort of children 5 years old and under with nsCL/P (exposed group) and children without nsCL/P (unaffected group); matched by age and gender. Participants will be selected from ongoing case-control study (n=500), School of Dental Medicine, and Pediatric University Hospital. Power analysis will calculate minimum sample size (power=0.80 alpha=0.05). Exclusion criteria: syndromic clefts, patients without diagnosis information and with history of co-morbidity. Other bacterial and viral infections present at the time of COVID-19 diagnosis, sex, age, geographic location, COVID-19 vaccination status and others will be considered as possible cofounders. Descriptive statistics, Chi-square, Odds Ratios at 95% confidence intervals and multiple logistic regression will be estimated. **RESULTS/ANTICIPATED RESULTS:** We hypothesize that we will identify an increased risk of COVID-19 infection in children with nsCL/P than in those unaffected or children without nsCL/P. Children with nsCL/P will also have an increased risk of symptoms and complications of COVID-19 infection than those unaffected. **DISCUSSION/SIGNIFICANCE:** Knowing the increased risk of COVID-19 infection in children with nsCL/P will aid to prioritize treatment. If a higher risk

of COVID-19 infection is found, it will generate a need to modify elective surgery status to semi-elective; minimizing delayed treatments, unnecessary hospitalizations, complications and increased cost of treatment.

177

Contextual Pathways Linking Racial Discrimination to Rural Black American Mens COVID Vaccine Hesitancy[†]

Michael Curtis¹, Steven M Kogan¹ and Christopher C Whalen¹

¹University of Georgia

OBJECTIVES/GOALS: The present study investigated contextual factors linking rural Black American mens experiences of racial discrimination to their COVID vaccine hesitancy. Specifically, we investigated two potential mediators of the link between racial discrimination and COVID vaccine hesitancy: (1) medical mistrust, and (2) COVID conspiratorial beliefs. **METHODS/STUDY POPULATION:** Hypotheses were tested using structural equation modeling with 7 waves of data from 504 Black American men participating in a longitudinal study of risk behavior and substance use during young adulthood. At baseline, mens mean age was ~20. Data were collected before and during the COVID pandemic. The COVID pandemic began after Wave 4 data had been collected. A series of 3 online surveys, at 3-month intervals, were conducted to examine acute COVID-related stressors and impacts. **RESULTS/ANTICIPATED RESULTS:** The dual mediation model fit the data as follows: $\chi^2(7) = 19.00$, $p < .008$; $\chi^2/df = 2.71$; RMSEA = 0.06; CFI = 0.95; SRMR = 0.04. Results indicated that racial discrimination was directly associated with increases in COVID conspiratorial beliefs ($B = .14$, $p < .05$) and medical mistrust ($B = .22$, $p < .001$). COVID conspiratorial beliefs was directly associated with increases in COVID vaccine hesitancy ($B = .11$, $p < .05$). Indirect effects were detected whereby racial discrimination was associated with increases COVID vaccine hesitancy indirectly via increases in COVID conspiratorial beliefs ($B = 0.016$; 95% CI [0.001, 0.048]). **DISCUSSION/SIGNIFICANCE:** Investigating race-related factors in the context of vaccine hesitancy is a novel area of inquiry that could facilitate the development of targeted interventions for Black Americans to increase their vaccine uptake. Future research is needed to more thoroughly examine the relationship between racial discrimination and conspiratorial beliefs.

178

Promoting Diversity and Inclusion through the Black Voices in Research Storytelling Curriculum: Instructional Design and Pilot Implementation

Yulia A. Levites Strelakova¹, H. Robert Kolb², Patricia Xirau-Probert³ and Tiffany Pineda⁴

¹University of Florida

OBJECTIVES/GOALS: Last year, we reported on storytelling events highlighting the experiences of Black biomedical professionals. The goal of this continuation study was to put Black Voices into action through a companion curriculum, instructional materials, and facilitated meaningful discussions around racial justice. **METHODS/STUDY POPULATION:** We developed instructional materials and pilot-implemented the curriculum in a 250-student Healthcare Leadership class. Prior to viewing the video, participants were asked to provide a definition of diversity, inclusion, and equity. Afterwards, the students reflected and suggested changes to the

definition. Throughout the class, instructors facilitated group discussions about the role of diversity. As a culminating activity, students submitted a written reflection summarizing their understanding of the role of diversity, inclusion, and equity in healthcare. RESULTS/ANTICIPATED RESULTS: Instructional materials included videos, a facilitators guide, a reflection worksheet, and online course modules. The facilitators guide included an overview of best practices in the facilitation of group discussions, common rules groups can establish for open dialogue, and discussion questions specific to the Black Voices videos. In-class and lab discussions brought up several prominent metaphors for diversity and inclusion. For example, students first defined diversity as pieces of the puzzle that somehow fit together, but later surmised that the pieces do not need to fit, or be from the same puzzle. DISCUSSION/SIGNIFICANCE: Our pilot showed that participants experienced the power of storytelling, particularly for amplifying Black voices, gained a vehicle to expand awareness and consciousness of diversity, equity, and inclusion, and identified plans to promote and facilitate stories of race, equity, and diversity.

179

Responsible Conduct of Research for Undergraduates

Jennifer Moses¹, Anne Donnelly¹ and Michelle Leonard¹

¹University of Florida

OBJECTIVES/GOALS: In spite of significant growth in undergraduate research, there is little accessible RCR training material targeting this group. The goal of this project was to develop level appropriate RCR materials and test them for effectiveness of teaching basic knowledge of RCR. It was developed cognizant of the type of learning preferred by this group. METHODS/STUDY POPULATION: Today's undergraduate students are digital natives accustomed to using on-line resources for learning and value the ability to work independently. An asynchronous, online series of eight RCR modules were developed using PowerPoint. Audio instruction was overlaid over the presentations and uploaded to YouTube. Each module includes quiz at the end that must be completed with a 90% score in order to continue and students can retake each quiz until correct. Case studies, a plagiarism game, and additional resources such as infographics created by the Office of Research Integrity were included. 275 first year undergraduates completed the pilot and the on-line retrospective pre-post assessment that included 28 Likert scale items and two open-ended questions that were analyzed with RapidMiner. RESULTS/ANTICIPATED RESULTS: Participants rated their ability prior to and after the course to recognize the roles/responsibilities of a mentor, maintain and organize data records, recognize what constitutes research misconduct and multiple types of plagiarism, define ethics of authorship and the types of peer review, recognize responsible handling of human and animal subjects and to define collaborative research. Responses were analyzed using t-Tests and all items showed a significant increase. Students reported between a 28% and 50% increase in knowledge in each topic and gains in understanding where to report RCR violations. Text analysis using RapidMiner provided developers with suggestions on how to enhance the project. Students reported finding the course concise and easy to understand and valued the

included case studies. DISCUSSION/SIGNIFICANCE: This study demonstrated that RCR materials developed specifically for today's undergraduate students, presented an easily accessible format, effectively conveys the basics of RCR. The on-line, asynchronous format made it accessible to those for whom in person course is not possible. This model fills the gap in RCR training for early researchers.

Health Equity and Community Engagement

180

A Translational Approach to Uterine Fibroids in Black Women and Latinas*

Minerva Orellana¹, Elizabeth A. Stewart¹, Joyce E. Balls-Berry² and Felicity Enders¹

¹Mayo Clinic Graduate School of Biomedical Science and

²Washington University

OBJECTIVES/GOALS: Uterine fibroids (UF), non-cancerous myometrial neoplasms, affect 11 million women in the US. In qualitative research, experiences of Black women (BW) and Latinas (HL) with UF are understudied. UF etiology is poorly understood, and most symptoms are focused on decreasing UF symptoms. This study will showcase a translational approach in studying UF. METHODS/STUDY POPULATION: A community-engaged research process will be used throughout the study. We have a partnership with the Fibroid Foundation (FF), a UF advocacy organization. For our first aim, we have held community-engagement (CE) studios to provide insight for best practices in creating and implementing culturally appropriate studies with ethnographically diverse women regarding topics of UF. Our CE studios set the foundation for the second aim, which will be in-depth interviews assessing the sociocultural impacts among pre-menopausal BW and HL with UF. The women will be recruited through the FF's social media platform. To address lack of treatment options in UF, we will be focusing on JAK 2/3 pathway. We will be performing immunofluorescence on tissue microarrays on over 100 patient samples with extensive clinical and survey data. RESULTS/ANTICIPATED RESULTS: We held two CE studios, one with BW with UF and another with HL without UF. These participants were chosen as patient stakeholders. One theme from the CE studio was that both groups mentioned a cultural impact around menstrual health and UF discussions. The participant stakeholders provided insight to other influences in their journey that will be used to develop the interview guide questions for Aim 2. We expect the individual interviews to show similar experiences as our CE studio experiences. We anticipate more in-depth conversations about the sociocultural and ethnoracial factors impacting UF treatment. For Aim 3, we hypothesize that there will be increased JAK 2/3 expression in UF of patients with higher symptom burden and larger fibroid volume. DISCUSSION/SIGNIFICANCE: Implementing a community-engaged research framework provides a foundation for qualitative and translational gynecologic research in BW and HL. This project will contribute insight to their UF experience. There is a lack of innovative treatments, and we have access to valuable patient tissue and data that can be used for potential molecular targets.