

characterize abortion attitudes among US men who live in areas with restrictive abortion laws using qualitative methods. **METHODS/STUDY POPULATION:** We will use a semi-structured interview guide to elicit men's attitudes about abortion, characterized within moral, legal, religious, political, and other domains. Inclusion criteria include English-speaking cisgender men, ages 18 to 65 who live in states with the most restrictive abortion laws as defined by the Guttmacher Institute. We will recruit participants through Facebook ads and interviews will continue until theoretic sufficiency. Using an inductive thematic analysis approach, transcripts will be coded for emergent themes by two researchers independently in QRS NVivo 12.0, with concurrent refinement of themes as interviews are completed. **RESULTS/ANTICIPATED RESULTS:** We will elucidate emergent themes regarding men's abortion attitudes which could include how men think of abortion as a medical, moral, or personal reality, why they do or do not support abortion provision, among many other possibilities. We anticipate that researchers can use the data obtained from this study to begin to build a conceptual framework of abortion attitudes among US men who lives in restrictive states. **DISCUSSION/SIGNIFICANCE OF IMPACT:** This study will fill an important gap in the literature by qualitatively characterizing abortion attitudes among a population that has political influence on abortion access. Results can inform policy and advocacy campaigns aimed at shifting public abortion attitudes towards increased acceptance.

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Achieving health equity in translational research: Applying critical race theory in workforce curricula to address disparity

Kristina Gern Johnson¹, Karen C. Johnston¹, Jennifer Phillips², and Maryellen Gusic²

¹University of Virginia; ²iTHRIV

OBJECTIVES/GOALS: Learners will:

- Identify social structures that serve as root causes of health disparities
- Critically evaluate the ways in which racism, culture, and power perpetuate disparity
- Use critical reflection to shape their research and advocate for institutional change

METHODS/STUDY POPULATION: The Integrated Translational Health Research Institute of Virginia (iTHRIV) Health Equity curriculum provides a lens for participants to view health disparities, social structures that create and perpetuate disparities, and the path to a more equitable future. This longitudinal workforce curriculum incorporates the principles of critical race theory (CRT), including: race as a social construct, structural determinism, intersectionality, and the social construction of knowledge. Learners gain practical experience through facilitated group discussions and critical reflection of their own work including research question design, recruitment, dissemination, and enhancing the faculty pipeline. **RESULTS/ANTICIPATED RESULTS:** To measure the impact of the curriculum, we will evaluate learners' participation in mentoring activities for persons from underrepresented backgrounds; participation in local and national diversity and inclusion efforts; engagement in community-based research; ability to account for implicit bias and power imbalances in their research design, including in recruitment and retention; and share research findings with community members

and research participants. Evaluation strategies will include quantitative and qualitative methodologies. **DISCUSSION/SIGNIFICANCE OF IMPACT:** There is growing recognition of the impact of racism on the development and perpetuation of health disparities. Public health critical race praxis (an adaptation of CRT) is emerging as a theoretical framework to empower researchers to challenge the status quo in order to achieve health equity.

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Adopting a Team Science Communication Module for Community-Partnered Teams

Arleen F Brown, Keith Norris¹, Rachele Bross², Yelba Castellon, Norma Mtume, D'Ann Morris³, Aziza Lucas Wright⁴, Juan Barron³, Sarmen Hakopian³, and Maritza Salazar Campo⁵

¹UCLA Division of General Internal Medicine; ²The Lundquist Institute at Harbor-UCLA Medical Center; ³UCLA General Internal Medicine; ⁴Charles Drew University; ⁵University of California, Irvine

OBJECTIVES/GOALS: There is increased recognition that patients and community members are critical to creating impactful research. To this end the UCLA CTSI Community Engagement & Research Program modified an established multidisciplinary team science communication module to train academic-community research teams. **METHODS/STUDY POPULATION:** Community partners who have had previous experience in participatory research provided input such as limiting the emphases of individual academic introductions to group icebreakers (to level the playing field), reduced academic jargon to lay language, reducing the amount of text to key principles, and changed academic team scenarios for the team activity to represent community-academic teams. Academic partners articulated institutional barriers to integrating community into institutional systems. Iterative testing and modifications occurred through pilots with eleven teams (49 individuals). **RESULTS/ANTICIPATED RESULTS:** Embedding community partners in team science training involved creating a level playing field with less emphasis on academic credentials, using lay language in the didactic sessions and ensuring accessibility in all aspects of the training. An example of modifications: communication scenarios were read out loud by participants, which community partners felt were not inclusive of potential varying literacy levels and all partners may not feel comfortable reading aloud in a group setting. The vignettes were replaced with short videos of the scenarios with audio recordings. Several modifications were made the training's team activity of the training module. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Traditional academic team science training required significant modifications for an academic/community-partnered team to allow for optimal collaboration, inclusion, and strategically reduce the power dynamics that can naturally occur. Long-term followup to assess their effectiveness is needed.

4455

Advancing the Science of Community Engagement with Human-Centered Design

Jordan Poll¹, Ayse Buyktur², Aalap Doshi², Linde Huang², Tricia Piechowski², Meghan Spiroff², and Erica Marsh²

¹University of Michigan School of Medicine; ²Michigan Institute for Clinical & Health Research

OBJECTIVES/GOALS: To describe how the Community Engagement (CE) Program at the Michigan Institute for Clinical & Health Research (MICHHR), a Clinical & Translational Science

Award (CTSA) site at the University of Michigan, is adopting human-centered design (HCD) to advance the science of community engagement in translational research and CE's programmatic efforts. **METHODS/STUDY POPULATION:** The MICHHR CE Program supports academic-community partnerships to transform translational research across the state of Michigan. As the team aims to better engage partners to help guide the direction of their work, CE is collaborating with MICHHR's Design and Innovation Core to incorporate human-centered design (HCD). HCD is an approach that prioritizes the needs, values, and perspectives of direct users during the creation of a new product or service. The MICHHR team created interactive HCD activities for two statewide retreats to elicit feedback from community and academic members on ways to enhance community-engaged research (CEnR). Retreat participants worked on a variety of problems, such as barriers to partnering and defining impact for CEnR. These activities generated authentic, contextual, and multi-view data captured in various artifacts for systematic analysis. **RESULTS/ANTICIPATED RESULTS:** In the first retreat, a HCD activity had participants reflect on their own barriers to partnering in research and potential solutions. In the second retreat, an HCD activity facilitated participants interviewing each other on their views of the impact in CEnR. Results from the first activity identified a set of common barriers to CEnR, some related to partnership formation, communication, and partner equity, among others. These led the CE Program to specific programmatic efforts, such as designing a statewide partnership platform, hiring a communication program manager, and sponsoring community partners to join national conferences. The second retreat activity produced rich data to identify overlaps between different perspectives to inform how impact can be defined and measured in CEnR. **DISCUSSION/SIGNIFICANCE OF IMPACT:** HCD activities provide means to include community and academic members in the science of CEnR. They allow systematic ways to gather information directly from the diverse set of current or prospective partners of community engagement programs about their needs, experiences, and values, which can be translated to programmatic innovation.

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Aligning community-engaged research competencies with online training resources across the Clinical and Translational Science Award Consortium

Rebecca Jane Piasecki¹, Rebecca J Piasecki², Lisa D Quarles³, Mona N Bahouth¹, Anwasha Nandi³, Alicia Bilheimer³, Lori Carter-Edwards³, and Cheryl R Dennison-Himmelfarb²

¹Johns Hopkins University School of Medicine; ²Johns Hopkins University School of Nursing; ³North Carolina Translational and Clinical Sciences Institute

OBJECTIVES/GOALS: The extent that Clinical and Translational Science Award (CTSA) programs offer resources accessible online for training in community-engaged research (CEnR) core competencies is unknown. This study cataloged CEnR resources accessible online from CTSA and mapped resources to CEnR core competencies. **METHODS/STUDY POPULATION:** Eight domains of CEnR core competencies were identified: knowledge/perceptions of CEnR; personal traits necessary for CEnR; knowledge of/relationships with communities; training for performing CEnR; CEnR methods; program evaluation; resource sharing and communication; and dissemination and advocacy. A systematic review of CEnR resources accessible online from CTSA was conducted between July 2018 and May 2019. Resource content was independently reviewed by two reviewers and scored for

inclusion of each domain of CEnR core competencies. Domain scores across all resources and inter-rater reliability in scoring domains were assessed using descriptive statistics and Cohen's kappa coefficients. **RESULTS/ANTICIPATED RESULTS:** Overall, 214 resources available from 24 CTSA were eligible for full review. Scoring discrepancies for at least one domain within a resource initially occurred in 51% of resources. "CEnR methods" (50.5%; 108 of 214) and "Knowledge of/relationships with the community" (40.2%; 86 of 214) were most frequently addressed and "Program evaluation" (12.1%; 26 of 214) and "Dissemination and advocacy" (11.2%; 24 of 214) were least frequently addressed domains. Additionally, challenges were noted in navigating CTSA websites to access CEnR resources, and CEnR competency nomenclature was not standardized. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Our findings guide CEnR stakeholders to identify CEnR resources accessible online and gaps to address in CEnR resource development. Standardized nomenclature for CEnR competencies is needed for effective CEnR resource classification. Uniform organization of CTSA websites may maximize navigability. **CONFLICT OF INTEREST DESCRIPTION:** In addition to the funding information listed previously (see above), within the last three years, R.J. Piasecki has been employed as: Project Coordinator, CEnR Online Learning Project, Johns Hopkins University School of Nursing (Current) Temporary Employee (Doctoral Student Intern), Michigan State University Institute for Health Policy (Current) Clinical RN, Intrastaff at the Johns Hopkins Health System (Past) Research Data Analysis Assistant, Maryland Institute for Emergency Medical Services (Past - contracted)

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An Intervention Mapping Approach to Develop Interventions to Improve Access to Kidney Transplant

Hannah D'Cunha¹, Melissa Partin, Warren McKinney, Marilyn Bruin, and Allyson Hart¹

¹University of Minnesota CTSI

OBJECTIVES/GOALS: Kidney transplant is superior to dialysis for the treatment of end-stage kidney disease, but accessing transplant requires high patient engagement. We sought to develop a group counseling intervention with patients and their social support members using an evidence-based, stakeholder-engaged approach. **METHODS/STUDY POPULATION:** We employed an Intervention Mapping approach to incorporate qualitative data from stakeholders on barriers to accessing kidney transplant. Data were collected from 13 focus groups of African American (AA) and white adult kidney transplant candidates and their social support networks in Minnesota and Georgia. We completed this process through (1) qualitative data collection, (2) utilizing data and intervention mapping methods to develop a conceptual framework to describe associations between behavioral determinants and desired outcomes, and (3) using these products to identify evidence-based approaches to modify behavioral determinants through a theory based intervention. **RESULTS/ANTICIPATED RESULTS:** Participants describe experiences of overwhelm, isolation, helplessness, and difficulty communicating. In addition, AA participants expressed distrust in the medical system. We systematically incorporated these themes into a conceptual model of behavior change that identifies determinants of necessary actions to obtain transplant, including knowledge, self-efficacy, reduced decisional conflict, and perception of social support. Evidence-based methods to modify these determinants, such as modeling, goal-setting, and mobilizing social support, were incorporated into the design of a group education and counseling intervention with an individualized risk calculator.