from 2011 to 2014 was -0.57 percentage points while the average change in dialysis facility waitlisting rates from 2014 to 2017 was -4.17 percentage points. Half of facilities in the 2011 lowest quartile remained in the lowest quartile in 2017; 45% of facilities in the top 2011 quartile dropped into a lower quartile. The middle 2 quartiles were fairly evenly split between worsening, improving, and not changing. DISCUSSION/SIGNIFICANCE OF IMPACT: Average waitlisting rates have declined since KAS implementation. Many facilities switched quartiles from 2011-17 suggesting that facility waitlisting rates are unstable over time. The decline in waitlisting rates post-KAS suggests that new allocation rules may be discouraging patients and/or providers from getting ESRD patients waitlisted.

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### The Role of Suggestibility and Trait Anxiety in Young Adult Alcohol Use

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OBJECTIVES/GOALS: The purpose of this study was to investigate how suggestibility and social susceptibility relate to alcohol use in young adult non-dependent alcohol users, and the role of trait anxiety in this relationship. We hypothesized that greater trait anxiety would be associated with higher levels of alcohol misuse, and this would be mediated by suggestibility. METHODS/STUDY POPULATION: Study participants enrolled in the NIAAA screening and assessment protocol completed questionnaires on suggestibility, anxiety, and alcohol use. The Multidimensional Iowa Suggestibility Scale (MISS) is a 95-question self-report assessment of suggestibility. Trait anxiety is assessed with the State Trait Anxiety Inventory-Trait (STAI-T). Alcohol measures included the Alcohol Use Disorder Identification Test (AUDIT). Structured Clinical Interviews for DSM-IV or DSM-5 disorders were conducted, and non-dependent participants (N = 113) were considered. A median split was conducted (median age = 35.1 years), with the focus of this study on the younger individuals (N = 55). RESULTS/ANTICIPATED RESULTS: Initial analyses showed that suggestibility, alcohol misuse, and trait anxiety all had significant positive correlations with one another. To better understand the relationship of peer influence, specifically, with drinking and anxiety, MISS subscale of Peer Conformity was analyzed. MISS total score and Peer Conformity were positively correlated with AUDIT Total as well as STAI-T Score. STAI-T Score was additionally positively correlated with AUDIT Total (all  $p^2 = 0.222$ ). We also looked at Peer Conformity in place of MISS Total ( $R^2 = 0.213$ ). In both models, only suggestibility measures were significant predictors of harmful alcohol use (p<0.01). DISCUSSION/SIGNIFICANCE OF IMPACT: In young social drinkers, there were significant positive associations between suggestibility, risky alcohol use, and trait anxiety. These results suggest that suggestibility may be a modifiable risk factor for risky alcohol consumption. Future directions include using mediation models to explore the associations between suggestibility, anxiety, and alcohol misuse.

4024

### Theory and Scale Development for Cancer-Related Self-Efficacy in Partners of Breast Cancer Survivors

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OBJECTIVES/GOALS: Specific aims are to: (Qualitative aim) Develop a new measure of cancer-related self-efficacy in partners (BCSES-P) and obtain feedback on the items (Quantitative) Evaluate the psychometric properties of the BCSES-P including: dimensionality, factor analysis, and construct validity assessing the relationships posited METHODS/STUDY POPULATION: 2-Phase Approach: 1) Item development and 1) Item testing Phase 1 Stage 1: Literature review to identify additional covariates Stage 2: Focus groups and individual interviews to determine partners' needs Sample size: 20 partners (18 years of age or older, identifying as being in a committed relationship with a BCS) Design: cross-sectional, qualitative interviews Stage 3: Develop candidate items Stage 4: Cognitive interviews Stage 5: Finalize items with research team Phase 2 Preliminary psychometric testing Dimensionality Internal consistency reliability Construct validity Sample size: 150 partners Design: cross-sectional, online survey RESULTS/ANTICIPATED RESULTS: The BCSES-P will be unidimensional as assessed by exploratory factor analysis. The BCSES-P will demonstrate an internal consistency coefficient of 0.70 or above. Construct validity of the BCSES-P will be demonstrated by support of the following theoretical relationships: Cancer-related self-efficacy will be positively related to marital satisfaction and sexual functioning (social wellbeing) and the distal outcome, overall QoL. Cancer-related self-efficacy will be negatively related to fatigue (physical well-being), fear of recurrence, depression, and anxiety (psychological well-being). DISCUSSION/SIGNIFICANCE OF IMPACT: Findings will guide intervention development to improve partners' quality of life The BCSES-P will be the first scale to measure partners' cancer-related self-efficacy. This study will highlight a holistic approach to studying the long-term effects of breast cancer on partners.

4112

### Tools for Self-Management of Obstetric Fistula in Low and Middle-income Countries: A Qualitative Study Exploring Pre-implementation Barriers and Facilitators among Global Stakeholders

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OBJECTIVES/GOALS: Insertable devices (IDs) for obstetric fistula (OF) management are feasible, acceptable, but not accessible; implementation determinants in low and middle-income countries (LMICs) are unknown. Thus, the purpose of this study was to understand pre-adoption facilitators and barriers among global stakeholders for a therapeutic ID for OF in LMICs. METHODS/STUDY POPULATION: Stakeholders, including researchers (n = 11), clinicians (n = 4), government officials (n = 2), and administrators (n = 4), were purposefully identified from various sectors involved

in understanding and addressing the needs of women with OF: clinical care, academia, international health, civil society, and government. Twenty-one individuals were interviewed about their perceptions of IDs for OF self-management and their implementation. Interviews were audio-recorded and transcribed. The Consolidated Framework for Implementation Research (CFIR) guided data collection and analysis. Thematic analyses were carried out within Nvivo v.12. RESULTS/ANTICIPATED RESULTS: Determinants of implementation of an ID for OF self-management (by CFIR domain) include: (1) intervention characteristics—relative advantage and cost; (2) individual characteristics-knowledge and beliefs about the innovation; (3) inner setting-organizational culture, implementation climate, tension for change, and compatibility; (4) outer setting- patient needs and resources and external policy and incentives; (5) process—opinion leaders and collaboration. Facilitators include: tension for change for low-cost, accessible IDs; relative advantage over existing tools; development of partnerships; and identification of implementation champions. Barriers include: need for educational strategies to encourage clinical provider acceptability; lack of evidence of the optimal beneficiary. DISCUSSION/SIGNIFICANCE OF IMPACT: Tools for therapeutic OF self-management could be integrated into comprehensive OF programming. Employing the CFIR as an overarching typology allows for comparison across contexts and settings where OF care occurs and may be useful for clinicians, researchers, and policy-makers interested in implementing IDs for OF self-management in LMICs. CONFLICT OF INTEREST DESCRIPTION: I am working with colleagues at the non-profit Restore Health on developing an insertable cup for therapeutic self-management of obstetric fistula in LMICs

4432

## Transportation Barriers and Preferences Among Drivers with Developmental Disabilities in Southeast

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OBJECTIVES/GOALS: Transportation may be a barrier for individuals with Autism Spectrum Disorder (ASD). More individuals with ASD utilize public transportation compared to typically developing (TD) individuals. This study seeks to elucidate the transportation needs of individuals with ASD in the Southeast. METHODS/ STUDY POPULATION: Sixty-one licensed drivers with a diagnosis of ASD (n = 21), Attention-Deficit/Hyperactivity Disorder (ADHD; n = 19), or no diagnosis (TD; n = 21) were recruited and were matched across diagnosis groups by age (16-30 years old), gender, and IQ. Participants completed an adapted version of the Barriers to Care Scale and a survey assessing transportation preferences and quality of life. Means and frequencies were obtained. Chi-square analyses were conducted to estimate associations between diagnosis and transportation preferences. RESULTS/ANTICIPATED RESULTS: Nearly all of the sample had access to a car (98.4%). Yet, only 71.4% of drivers ASD preferred to use their own car compared to 89.5% and 90.5% of the ADHD and TD groups respectively. The use of public transportation (6.6%) and ride-hailing services (18%) for general transportation needs was very low across the groups. There was a significant association between group type and the reliance on others for transportation ( $\chi^2(2,61) = 9.9$ , p < .01). Only 21.1% of those with ADHD relying on others for transportation needs, compared to 61.9% of TD and 66.7% of individuals with ASD. 23.8% of ASD drivers, 10.5% of ADHD drivers, and 9.5% of TD drivers believe transportation proved as an obstacle. DISCUSSION/SIGNIFICANCE OF IMPACT: The proportion of ASD drivers who believed transportation to be a barrier appeared slightly higher than other groups. Public transportation use may be low due to lower accessibility to such services in the Southeast. The travel patterns of individuals with ASD and ADHD merits further exploration.

4345

#### Two-step Algorithm for Clostridioides difficile is Inadequate for Differentiating Infection from Colonization in Children

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OBJECTIVES/GOALS: In 2017, new guidelines recommended multi-step algorithms for CDI diagnosis, and clinical centers rapidly implemented changes despite limited pediatric data. We assessed a multi-step algorithm using NAAT followed by EIA for ability to differentiate symptomatic CDI from colonization in children. METHODS/STUDY POPULATION: We prospectively enrolled pediatric patients with cancer, cystic fibrosis, or inflammatory bowel disease who were not being tested or treated for CDI and obtained a stool sample for NAAT. If positive by NAAT (colonized), EIA was performed. Children with symptomatic CDI who tested positive by NAAT via the clinical laboratory were also enrolled and EIA performed on residual stool. A functional cell cytotoxicity neutralization assay (CCNA) was performed in addition. RESULTS/ ANTICIPATED RESULTS: Of the 138 asymptomatic children enrolled, 24 (17%) were colonized. An additional 37 children with symptomatic CDI were enrolled. Neither EIA positivity (41% versus 21%, P = 0.11) or CCNA positivity (49% versus 46%, P = 0.84) were significantly different between symptomatic versus colonized children. When both EIA and CCNA were positive, children were more commonly symptomatic than colonized (33% versus 13%, P = 0.04). DISCUSSION/SIGNIFICANCE OF IMPACT: A multi-step testing algorithm with NAAT and EIA failed to differentiate symptomatic CDI from colonization in our pediatric cohort. As multi-step algorithms are moved into clinical care, pediatric providers will need to be aware of the continued limitations in diagnostic testing.

4151

# Understanding barriers and solutions towards access to mental health among rural adolescents

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OBJECTIVES/GOALS: There are two objectives: 1) To identify healthcare providers' (HCP) barriers and potential solutions towards