to the general population. Healthy lifestyle interventions that improve dietary habits and increase physical activity can help address these health disparities in people with SMI. Yet few studies have examined how people with SMI engage with these interventions. The aim of this qualitative study is to examine the experiences of people with SMI participating in a peer-led healthy lifestyle intervention delivered in three supportive housing agencies.

Methods: As part of an NIH-funded effectiveness trial, focus groups (n = 15) and individual interviews (n= 6) were conducted with participants who completed a year-long peer-led healthy lifestyle intervention for people with SMI with a BMI of 25 or above. Participants (N = 60) attended an average of 20 of 22 intervention sessions. Focus groups and interviews explored participants’ motivations for attending, how they used intervention content, challenges faced in making healthy lifestyle changes, and suggestions for program improvement. All data were audiotaped, transcribed, and examined using grounded theory. Strategies for rigor and trustworthiness included generating an audit trail, prolonged engagement with participants, and researcher peer-debriefing.

Results: Participants were mostly male (60%), Black (72%) with a mean age of 49 and mean baseline BMI of 35. Most common psychiatric diagnoses were depression (78%), schizophrenia/schizoaffective disorder, (66%), and bipolar disorder (51%) while most common medical conditions were high blood pressure (45%), diabetes (38%), and high cholesterol (37%). Reasons for participating in the intervention included wanting to lose weight, recent diagnosis of diabetes, or wanting to live a healthier lifestyle. Participants reported developing greater understanding of health issues and need to change behaviors. They described attempting behavior change amidst numerous challenges related to the physical and social environment (e.g., temptation of unhealthy foods), dietary restrictions, and cultural preferences constraining food choice, affective states and fatigue (e.g. stress eating), physical health conditions (e.g., arthritic pain), competing priorities, and lack of familiarity with certain health behaviors (e.g. what to do at the gym). Despite these challenges, they shared how they applied intervention concepts, including portion control, mindful eating, healthier food choices, self-monitoring of diet and exercise, and physical activity. Specific examples included preparing foods differently (e.g. boiling rather than frying chicken), substituting healthier foods into their diets (e.g. fruits), planning proactively (e.g., healthy snacks), removing cues for mindless eating, and finding ways to integrate physical activity into daily routines (e.g., using stairs instead of elevators). Participants expressed positive views of the intervention and feedback was guided by desires to enhance opportunities for experiential learning. Suggestions included maintaining the frequency of sessions (rather than tapering as designed), extending the duration of the intervention beyond one year, and adding more collaborative structured activities for cooking and physical activity. Overall, as participants engaged in healthy dietary changes and increased their physical activity, we observed significant improvements in the proportion who achieved clinically significant: weight loss (≥5% weight loss from baseline), improvements in cardiorespiratory fitness, and overall reductions in cardiovascular risk over the course of the 12-month intervention.

Conclusions: Participants described specific ways in which they integrated intervention concepts into their daily lives to improve their health. Their feedback regarding challenges and suggestions for improvement highlight the need for future healthy lifestyle interventions to consider the frequency and duration of the intervention, and to increase experiential learning for cooking and physical activity.

27.2 COMPREHENSIVE CARDIOVASCULAR RISK REDUCTION TRIAL IN PERSONS WITH SERIOUS MENTAL ILLNESS

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Background: Persons with SSD and other SMI die 10–20 years earlier than those without. Much premature death in this population is attributable to cardiovascular disease (CVD) with CVD-related mortality rates twice those of the overall population. Accordingly, this vulnerable group has a high burden of modifiable CRF including smoking, obesity, hypertension, diabetes, and dyslipidemia. Interventions need to be adapted for persons with SSD and other SMI who often have substantial barriers related to cognitive impairment and psychiatric symptoms. Our objective was to determine the effectiveness of an 18-month comprehensive CVD risk reduction intervention in adults with SSD and other SMI.

Methods: We recruited adults with SSD or another SMI and with at least one CRF from community mental health programs and randomly assigned them to an intervention or a control group. Participants in the intervention group received health behavior coaching and care coordination/care management to improve CRF. The primary outcome is the change in estimated CVD risk from the global Framingham Risk Score between baseline and 18 months. Individual CRF comprise secondary outcomes.

Results: The trial enrolled 269 participants. Mean age is 48.8 (SD 11.9) years, 48% are male, 50% are White, and 46% are African American. At baseline, 90 percent are overweight, approximately half smoke tobacco, half have hypertension, over a third have diabetes mellitus, and approximately two-thirds have dyslipidemia. The trial is ongoing. The 18-month outcome results will be presented.

Conclusions: Unless effective interventions that effect CVD health outcomes are implemented, populations with SSD and other SMI will continue to lag far behind public health CVD goals. This intervention incorporates care coordination and care management concepts with intensive health behavior change coaching to address all CRF in persons with SSD and other SMI in community mental health settings. If successful, the intervention could be adopted broadly and significantly improve the physical health of this vulnerable population.

27.3 A MOBILE PERSONAL HEALTH RECORD FOR BEHAVIORAL HEALTH HOMES: PRELIMINARY RESULTS FROM A RANDOMIZED TRIAL

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Background: In general, medical populations, electronic Personal Health Records (PHRs), have shown promise in reshaping healthcare by shifting the ownership and locus of health records from being scattered across multiple providers to an approach that is longitudinal and person-centered. This presentation will describe the intervention, study design, and preliminary findings from an NIMH-funded, randomized trial testing a mobile PHR for people with serious mental illnesses and cardiovascular comorbidity.

Methods: A mobile PHR was developed to improve quality of care in behavioral health homes, clinics that provide primary medical care for patients in community mental health settings. The PHR links medical and mental health records and provides patients with real-time information about diagnoses, medications, appointments, and health goals. Primary study outcomes are quality of care as measured by receipt of indicated preventive services and RAND cardiovascular quality measures. Secondary study outcomes are patient activation, coordination of chronic care, health status, and cardiovascular risk, as well as app usage.

Results: The study randomized 311 participants with a serious mental illness and one or more cardiovascular risk factor to either receive the mobile PHR (n=156) or usual care (n=155). At baseline, the mean age of participants was 49 years, 50% were male, 50% were White, and 46% were African American. At baseline, 90 percent were overweight, approximately half smoked tobacco, half had hypertension, over a third had diabetes mellitus, and approximately two-thirds had dyslipidemia. The trial is ongoing. The 18-month outcome results will be presented.
participants was 51, 77% were African American, and 54% had annual incomes of less than $5,000. The most common psychiatric diagnoses were depression (79%), bipolar disorder (29%), and schizophrenia (22%). Medical comorbidities included hypertension (84%), hyperlipidemia (49%), and diabetes (47%). Baseline characteristics were balanced across the study arms. 12-month study outcomes will be presented at the meeting.

Conclusions: The presentation will address the opportunities and challenges of using health technologies to improve quality of care for people with serious mental illnesses.

27.4 RANDOMIZED TRIAL OF A LIFESTYLE INTERVENTION FOR YOUNG ADULTS WITH SERIOUS MENTAL ILLNESS IN COMMUNITY MENTAL HEALTH CENTERS

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Background: Fit Forward is one of the first randomized clinical trials examining the effectiveness of a group lifestyle intervention (PeerFIT) enhanced with digital health technology compared to one-on-one mobile lifestyle coaching in achieving clinically significant weight loss and improved fitness in young adults ages 18 to 35 with serious mental illness (SMI). In this presentation, we will provide an overview of the study design and rationale and present data on baseline demographics, clinical status, health behaviors, and technology use, and examine how these factors are associated with intervention engagement among young adults with SMI enrolled in the Fit Forward Trial.

Methods: Fit Forward targets 144 young adults (18 to 35 years old) with SMI and a body mass index (BMI) of ≥ 25 receiving services at community mental health centers. In a two-arm randomized clinical trial, participants are randomly assigned with equal probability to PeerFIT or BEAT, stratified by birth sex and psychiatric diagnosis. Participants are assessed at baseline, 6, and 12 months. The primary outcome is cardiovascular risk reduction indicated by either clinically significant weight loss (5% or greater) or increased fitness (>50 m on the 6-Minute Walk Test). Secondary outcomes include change in BMI, lipids, and hemoglobin A1c. Perceived self-efficacy for exercise and peer support will be evaluated as mechanisms underlying intervention effects. Data was collected from 85 adults with SMI enrolled in the trial to date at three community mental health centers in the Northeastern US. Baseline data on participant demographic, clinical, and behavioral characteristics were gathered through in-person interviews. Study interventionists tracked participant attendance at intervention sessions and engagement with technology components.

Results: The sample was 56% female with a mean age of 28.5 ± 4.5, and self-reported race as 48% white and 32% black. Primary SMI diagnoses were: 50% schizophrenia and psychotic disorders, 32% mood disorders, 18% anxiety disorders. Obesity levels were high among participants (mean BMI 37.5 ± 7.5): 22% were classified as severely obese (BMI 35 to <40) and 34% were morbidly obese (BMI ≥ 40). Mean A1c levels were 5.4% ± 1.1 (23% of the sample had A1c levels indicating high risk for diabetes ≥5.7%), and 40% had either elevated blood pressure (6%: 120–129/80 mmHg), Stage I hypertension (26%: 130–139/80–89 mmHg) or Stage II hypertension (8%: ≥140/90 mmHg). Forty-percent of participants were current smokers, of whom 46% had made a quit attempt in the past year. Regarding baseline technology use, 94% of participants owned a mobile phone, of which 93% were smartphones; 95% of participants used their mobile phones to send or receive text messages at least several times each day. Popular social media use among participants was as follows: 77% used Facebook, 22% used Twitter, 45% used Instagram, 35% used Snapchat, and 88% used YouTube. Results will include data on intervention engagement and an examination of how background and clinical factors are related to engagement.

Conclusions: A majority of participants enrolled to date in the Fit Forward Trial had high cardiometabolic risk, suggesting that mental health centers could be an effective venue for identifying and referring the most at-risk young adults with SMI to lifestyle interventions. Trial outcomes will shed light on the effectiveness of lifestyle interventions that leverage peer support and technology in real-world mental health settings that serve high numbers of young adults with SMI who experience significant barriers to behavior change.

Plenary Session

28. SCHIZOPHRENIA IN THE FLESH: THE CASE FOR BEHAVIORAL SCIENCES IN THE AGE OF BIG DATA

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Splitting of the self and bodily self-disturbances, symptom that were central to early conceptualization of schizophrenia, are highly salient and disruptive to individuals with schizophrenia throughout the course of their illness. However, there exists a chasm between the phenomenology that defines one’s subjective illness experience, and the current biological understanding of schizophrenia as a brain disorder. We propose to bridge this divide. An implicit understanding of one’s own body as a continuously unified entity across time with fixed boundaries is necessary for establishing a sense of self, and this experienced unity of self and body is indispensable for adaptive interpersonal functioning. Thus, specifying neurocognitive and social mechanisms underlying self-disturbances in schizophrenia has significant practical implications for developing targeted interventions, but progress in this area of research has been limited by the subjective nature of bodily self-experiences, and the scarcity of reliable methodological tools to quantify them.

To help close this gap, we conducted a series of experiments to investigate cognitive contributions (e.g., working memory, mental representation, imagery, simulation) to the phenomenology bodily self-experiences in the context of the social brain network, and to elucidate spatial components of self-disturbances that are closely aligned with anomalous agency, body ownership and embodiment. Results indicate that a unique profile of cognitive deficits and enhancements, when combined with social isolation may contribute to an altered bodily self-boundary, dissociative experiences and abnormal embodiment of emotions. Furthermore, preliminary intervention studies targeting social attention and simulation have yielded promising outcome.

To summarize, mechanistic understanding of the origins and consequences of bodily self-disturbances is beginning to crystallize within the framework of social cognitive neuroscience, but much remains unresolved. We believe the time is ripe for leveraging recent advances in neuroscience and technology to tackle this elusive behavioral core of schizophrenia in the flesh.

Concurrent Symposia

29. COMPUTATIONAL APPROACHES TO FACE MULTILEVEL COMPLEXITY IN SCHIZOPHRENIA

Kim Do