

 What Treatments are Available to Address These Social Problems?

 What Are the Remaining Opportunities for Promoting Social & Interpersonal Functioning in Young Adults with Psychosis?



# Global Burden of Disease Study 2010: Disability Weight

Illness/Injury	Disability Weight
Schizophrenia: Acute State	0.756
Multiple Sclerosis: Severe	0.707
Spinal Cord Lesion at Neck: Untreated	0.673
Epilepsy: Severe	0.657
MDD: Severe Episode	0.655
Heroin/Other Opioid Depend.	0.641
TBI: Long Term Consequences Severe	0.625
Musculoskeletal Problems: Severe	0.606
Schizophrenia: Residual State	0.576
End Stage Renal Disease: On Dialysis	0.573



# Social Difficulties in Psychosis

 Impairments in Social Functioning – a Core Feature of Psychotic Disorders

"The inability of individuals to meet societal defined roles such as homemaker, worker, student, spouse, family member, or friend. In addition, individual's satisfaction with their ability to meet these roles, their ability to care for themselves, and the extent of their leisure and recreational activities is often subsumed under the rubric of **social functioning**."



### Social Difficulties in Psychosis

Difficulties with Social Functioning Tend to be Persistent

 Social Dysfunction is a Primary Contributor to Societal Cost of Illness

 Social Difficulties both Influence and are Influenced by Other Aspects of Illness



# Social Difficulties in First-Episode Psychosis

- Social Difficulties Present by Onset of Symptoms
  - More limited social networks (Horan et al., 2006)
  - Network more comprised of family with fewer peers (Ericskon et al 1989; MacDonald et al., 2000)

 Poor social adjustment at illness-onset is a strong predictor of adverse long—term outcomes (Mueser, Bellack, Douglas, & Morrison, 1991; Yager & Ehmann, 2006)



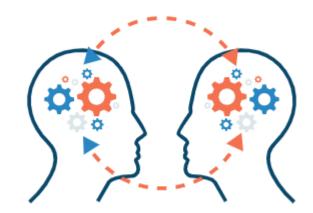
### Social Difficulties in First-Episode Psychosis

- Better social support is predictive lower rates of rehospitalization and reduced psychotic symptoms during first years of illness (Norman et al., 2005)
  - Greatest benefit when support comes from non-family peers (Erickson et al., 1998)
- Social difficulties may increase susceptibility of young adults to social/environmental stressors
  - Bullying, Peer Rejection, and Hostility from peers exacerbate psychotic symptoms and increase distress (Campbell & Morrison, 2007; Trotta et al., 2013)



# Social Difficulties & Social Cognition

- Social Cognition: The mental processes that underlie social perception and social behavior (Green et al., 2008)
- Diminished in psychosis
- Impairments present early
- Relatively stable over course



Highly related to social & community outcomes



# Social & Social-Cognitive Interventions for Psychosis

- Social Skills Training for Schizophrenia (Bellack, Mueser, Gingerich, & Agresta, 2004)
- Cognitive-Behavioral Social Skills Training for Schizophrenia (Granholm, McQuaid, & Holden, 2016)
- UCLA Social and Independent Living Skills Program (Liberman et al., 1993)
- Social Cognitive Skills Training (Horan et al., 2009)
- Social Cognition and Interaction Training (Roberts, Penn, & Combs, 2016)
- Computerized Social Cognitive Training SocialVille (Haut et al., 2019; Nahum et al., 2014)



# Social & Social-Cognitive Interventions for Psychosis

Two Excellent, Recent Resources:

Fiszdon, J. M., & Davidson, C. A. (2019). Social cognitive interventions. In *Social Cognition in Psychosis* (pp. 269-293). Academic Press.

Lewandowski, K. E., Mesholam-Gateley, R. I., & Keshavan, M. S. (2019). Psychosocial interventions for social dysfunction in psychosis. In *Social Cognition in Psychosis* (pp. 295-319). Academic Press.



### Social Difficulties in Psychosis

- Strong Empirical Evidence for Psychosocial Interventions
   Promoting Social Skills and/or Social Cognitive Function
   (Kurtz & Mueser, 2008; Horan et al., 2009; Kurtz & Richardson, 2012; Fiszdon & Reddy, 2012; Turner et al., 2018)
  - Less Consistent Linkage to Social and Community Outcomes
  - Less Research on Early Intervention/Young Adults,
     Specifically





### Targeted Social Treatments in Early Intervention

- Social Cognition and Interaction Training (SCIT)
  - 20 session, manualized intervention
  - Modules on emotion recognition, attributional style/"figuring it out", and integration of skills to real-life situations
  - Strong evidence base for improving social cognition in outpatient and inpatient samples
- Young people with FEP demonstrated significant improvements in emotion recognition and an index measure of social/occupational functioning (Bartholomeusz et al., 2013)
- SCIT-VR, An online adaptation, shows initial promise in improving emotion recognition (Nijman et al., 2020; Thompson et al., 2020)



# Targeted Social Treatments in Early Intervention

- Cognitive-Behavioral Social Skills Training
  - Group therapy focusing on cognitive skills, social skills, and problem-solving skills
  - RCTs demonstrate improvements in independent living skills
- Individuals with FEP demonstrated improved independent living skills, improved hope, and improved goal attainment after 18 CBSST sessions (Herman et al., 2016)
  - Efforts for Developmental Modifications for Young People



# **EPICENTER**

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GET HELP. FIND HOPE.



- Overall Social Functioning Improves after 6 Months
  - Greater Rates of Work & School Involvement
  - No Significant Changes in Social Engagement or Interpersonal Communication
- Social Cognition Improves after 6 Months, but is not Predictive of Couse of Social Functioning



# Are There Other Opportunities for Young People with Psychosis?

- Many social interventions have been designed for and/or researched mostly among older adults with chronic illness
- Some evidence suggests that age moderates the effectiveness of SST (Kurtz & Mueser, 2008; Kurtz & Richardson, 2012)
- Targeted, developmentally-informed social interventions during this critical period of illness may optimize outcomes



# Emerging Adulthood – Developmental Considerations

- Emerging Adulthood (EA) A Unique Phase of Life
- The Onset of Mental Illness during a Period Marked by Developmental Transitions and Uncertainty/Instability can:
  - Impact development & maintenance of key relationships
  - Lead to removals from the social environment
  - Limit exposure to normative social experiences



# Should we Target Peer Relationships in Early Intervention?

- Relevance of Relationship & Identity Formation during
   Emerging Adulthood
- Relative Importance of Peer Support and Relationships Immediate & Long-Term
- Motivation for Peer Relationships Predicts Social Outcomes in First-Episode Psychosis (Moe et al., under review)
- A Supplement but **not** a Replacement

# Social Skills in Other Groups – a Shared Difficulty?

- Social Cognition in Schizophrenia and High-Functioning Autism "More Convergence than Divergence" (Couture et al., 2010)
  - Particularly among those with relatively prominent negative symptoms (Couture et al., 2010)
  - Some similarity in neural underpinnings (Sugranyes et al., 2011)
  - Similar mentalizing impairments (Chung, Barch, & Strube, 2014)
  - Importance of Addressing Various Underpinnings of Social Difficulty
- "Socially Rejected versus Socially Neglected" (Laugeson, 2013)



# Social Skills Training – PEERS

- The Program for Enrichment and Education of Social Skills (PEERS; Laugeson, 2011)
  - Developed for People with High-Functioning Autism
  - Modified Version for Young Adults (Laugeson, 2017)
  - Explicit Goal of Making & Keeping Friends
- Focus on Specific, Concrete Skills/Approaches
  - Engaging Didactics
  - Supplemental Live Role-Play Demonstrations
  - Metacognitive Processing of Demonstrations
  - Behavioral Rehearsal with Coaching



# PEERS for Young Adults with Psychosis – A Pilot Study

OSU EPICENTER implemented an adapted PEERS intervention in the psychiatric inpatient setting

 The Importance of Early Intervention & Considering Inpatient Psychiatry (Moe et al., 2018; Moe et al., 2021)

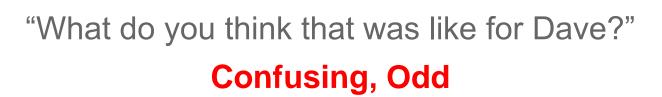


# PEERS for Young Adults with Psychosis – A Pilot Study

- 4 Skills Lessons
  - Trading Information
  - Starting Conversations
  - Maintaining Conversations
  - Dealing with Verbal Bullying
- Adapted for Inpatient Setting
  - Duration
  - Complementary while Standing Alone
  - Offered 2x per week on Adult Units

# **Starting Conversations**





"What do you think Dave thought of Amanda?"

Strange, Oblivious, Self-Absorbed

"Do you think Dave would want to talk to Amanda again?"

**Probably Not – Too Weird** 

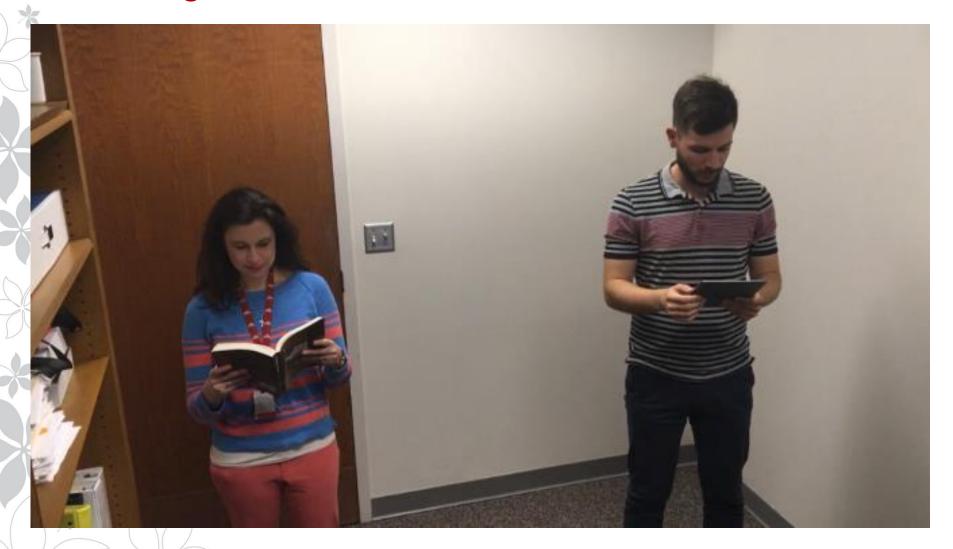


### **Starting Conversations**

- 1. Look Over Casually
- 2. Use a Prop
- 3. Notice a Common Interest
- 4. Mention the Common Interest
- 5. Trade Information
- 6. Assess Interest
- 7. Introduce Yourself



# **Starting Conversations**



### **Preliminary Results**

- 19 Adult Inpatient Participants, Ages 18 35
  - Attended an Average of 3 Groups
  - Range = 2 to 7 sessions
  - Average LOS = 12.3 days

#### Participant Demographics

	Mean (Standard Deviation)
Mean Age	27.25 (3.76)
Gender (%) Male Female	14 (74) 5 (26)
Psychiatric Diagnosis <sup>1</sup> Schizophrenia Schizoaffective Disorder Bipolar Disorder with Psychotic Feat Unspecified Schizophrenia-Spectrum Other Psychotic Disorder	, ,

Moe et al., 2021



### Social & Symptom Measures

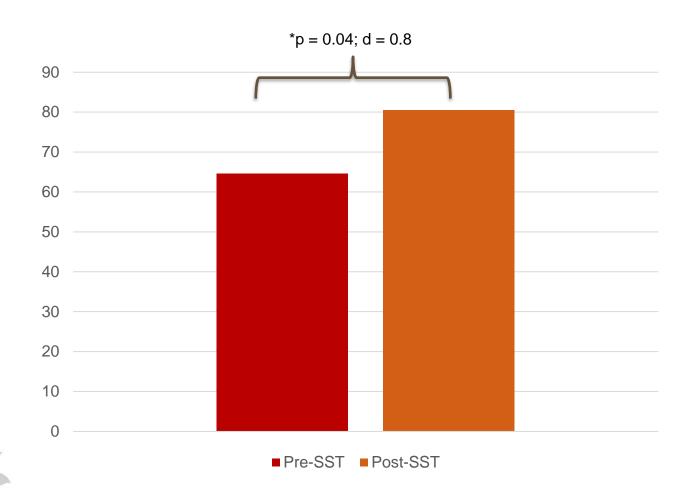
 Self-Efficacy Scale for Schizophrenia - Social (McDermott, 1995)

Social Skills Performance Assessment (Patterson et al., 2001)

 Brief Symptom Inventory – Inpatient Version (Derogatis et al., 2003)

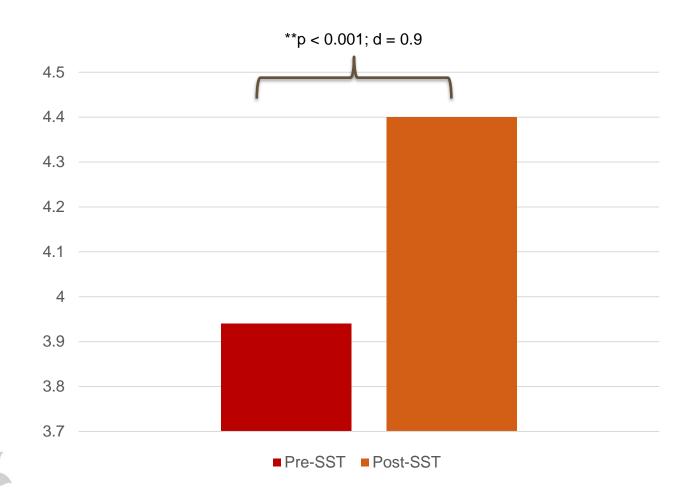
Moe et al., 2021

# Pre-post SF - SESS



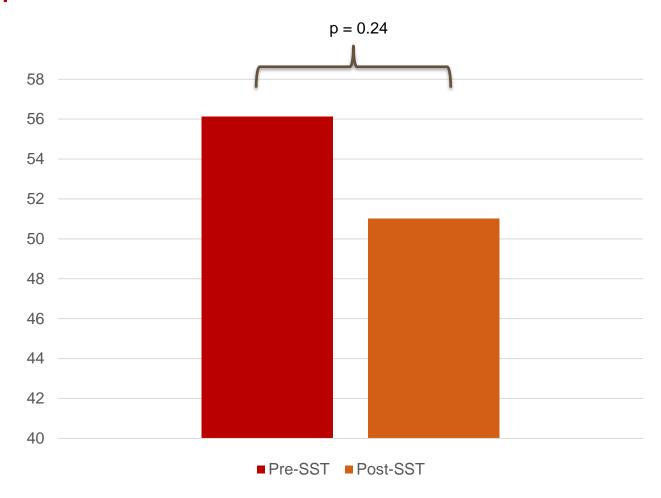


# Pre-post SF - SSPA





# Pre-post SF - BSI



### **Limitations & Implications**

 A Brief, PEERS-Based Approach May Contribute to Improvements in Aspects of Social Functioning

Very Preliminary, Uncontrolled Pilot Data

 Broader QI Data Indicate Favorable Perception among Inpatient Participants

Inpatient Psychiatry – Opportunities for Intervention





- Digital & mHealth approaches
  - Motivation and Skills Support (MASS) smartphone app (Fulford et al., 2020; Fulford et al., 2021)

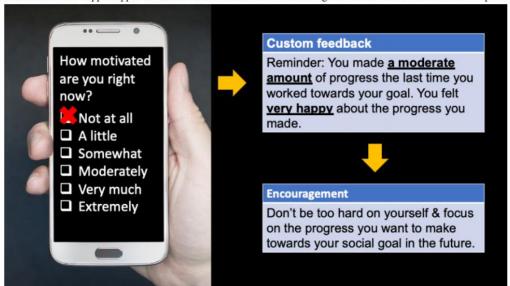
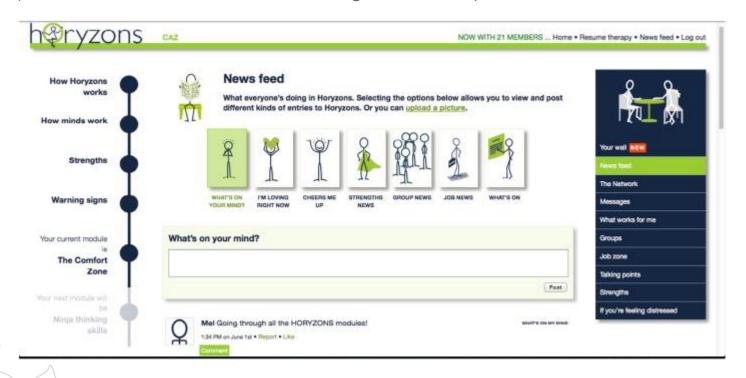


Figure 1. Motivation and Skills Support app content: feedback and validation and encouragement to address social motivation impairment.

- Digital & mHealth approaches
  - HORYZONS moderated, online social intervention (Alvarez-Jiminez et al., 2019; Ludwig et al., 2020)





- Despite Increased Efforts, "both pharmacological and psychological treatments have had only incremental success at rehabilitating community and daily living [for people with schizophrenia]." (Wojtalik et al., 2017)
- Translational approaches
- Social Dysfunction in Psychosis has Neurobiological Bases but Brain-Behavior Mechanisms of Social Processes are Under-Studied





# Coming Attractions: A Multi-Level Research Approach











ain Self-IRI) Report Behavioral/Performa nce-Based

- Leveraging Translational Science to Target the "Right Stuff"
- What are the Specific Patterns of Neural Dysfunction underlying Social Cognition in Early Psychosis?
- How do Brain and Behavioral Measures of Social Cognition Relate to Social and Functional Outcomes?



### Implications – Thinking Broadly

- Socially-Focused Interventions for Young Adults Are an Important Part of Early Intervention
- Potential Benefit of Developmentally-Informed Approaches or Modifications
- Additional Research with Young Adult & First-Episode
   Samples is Needed
  - Importance of Outcome Measurement
  - Can we identify individuals who would benefit the most?









# **Thank You**

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