It's about time:
Strengthening treatment and support for individuals with serious mental illness

Christopher Lowden, MD, and Patrick Michaels, PhD, presenters

Friday, December 8, 2023

ROGERS Behavioral Health

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Disclosures

Christopher Lowden, MD, and **Patrick Michaels, PhD,** have each declared that they do not, nor does their family have, any financial relationship in any amount occurring in the last 12 months with a commercial interest whose products or services are discussed in the presentation.

The presenters have each declared that they do not have any relevant non-financial relationships. Additionally, all planners involved do not have any financial relationships. Further, Rogers Behavioral Health does not accept commercial support for its CE programs.

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Learning objectives

Upon completion of the instructional program, participants should be able to:

1. Identify at least two common functional impairments among people with SMI.
2. Identify at least two medical treatments that improve functional outcomes of people with SMI.
3. Identify at least two psychological treatments that improve functional outcomes of people with SMI.

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What we'll cover in this webinar

SMI: Current state
- Description and demographics
- Current gaps in treatment
- Examples of some solutions

SMI: Psychiatric treatment and best practices
- Medical and biological treatments
- Psychiatric care models

SMI: Psychotherapy treatment and best practices
- Psychotherapy treatment
- Psychotherapy and psychosocial care models

Moderated Q&A

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Presenter subjectivities

Patrick Michaels, PhD

Professional identities
- Clinical Director
- Clinical Psychologist

Personal identities
- He/him/his
- Father, husband

Chris Lowden, MD

Professional identities
- Senior Medical Director of Medical Staff Well-being

Personal identities
- He/him/his
- Father, husband

We acknowledge that our experience, intersectionality, privilege – and lack thereof – inform what we each bring to our research, clinical practice, and teaching

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Serious mental illness: Current state

Please use the Q&A feature to send your questions to the moderator.

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Serious mental illness

- Persistent and chronic
- Static or unstable
- **Serious** – not able to achieve significant life goals because of their mental illness
  - **Significant life goal** – Defined by culture (work, education, independent living, relationships)
- **Mental illness** – Not defined by any one pathology – tend to think of psychosis

(Corrigan & Ballentine, 2021)

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Serious mental illness

- Shortens life span by 8.2 years
- Physical Illness accounts for 95.4% of deaths
- Physical functioning resembles population that is 10-20 years younger
- Higher incidence of cardiovascular illness, respiratory illness, gastrointestinal disorders, neurological disorders, cancer, blood-borne illness, and orthopedic illness
- More likely to be hospitalized for physical health problems and overutilize ER

(Corrigan & Ballentine, 2021)

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Functional impairments in schizophrenia

- Working memory deficits (permanent/stable) despite remission
  - Poor encoding process, likely due to sensory input (bottom up) and attention (top-down) processes
- Problems with learning and long-term memory are common
  - May be linked to hippocampal dysfunction
  - Episodic memory problems: encoding, retrieval
- Imbalance: bottom & top-down processes mis/false perception
  - Predictions/prior beliefs excessively weighted against sensory inputs could lead to experiencing things that are not there

(Ichinose & Park, 2020)

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Executive functioning deficits

- What contributes to psychosis?
  - Specific biases in reasoning and information processing
  - Preexisting beliefs about oneself and others,
  - Emotional changes in response to anomalous experience (e.g. a hallucination)
- Context that support delusional belief formation
  - "Jumping to conclusions" common
  - Externalizing attributional bias
  - Negative emotional state (anxiety, depression)
  - Distressing anomalous experiences
    - Ultimately forming a delusion belief

(Ichinose & Park, 2020)

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Social impairment

- Chronic social isolation
  - May increase risk and exacerbate psychosis through compensatory hyperactivity of social brain network
- Exclusion from society via status and/or culture
  - May increase risk of psychosis, potentially through changes in dopamine system functioning

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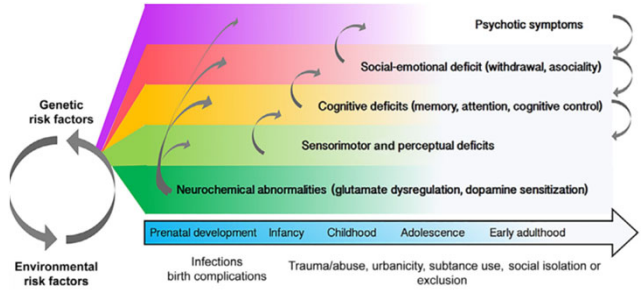
Risk factors and potential intervention strategies within a developmental framework



(Ichinose & Park, 2020)

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Case example

James is a 50-year-old African American man who lives on the West Side of Chicago. After graduating from high school, James worked for nearly 20 years as an accounting assistant at a large manufacturing company. He married, had two daughters, and owned his own home.

At age 35, he began experiencing psychotic symptoms. James told his wife that the devil was after him, and he set fire to their home to "drive the devil out." He was hospitalized and diagnosed with paranoid schizophrenia.

Although the antipsychotic medication prescribed to James in the hospital helped him manage his symptoms and return to work, the side effects caused him to gain a great deal of weight. He became diabetic and developed pain in his legs and feet.

His physician's office was more than an hour away—high crime rates had long ago forced medical providers out of his neighborhood. The physician recommended that James get more exercise and take walks after work, but gang activity on his block made that a dangerous, impossible activity.

(Corrigan & Ballentine, 2021)

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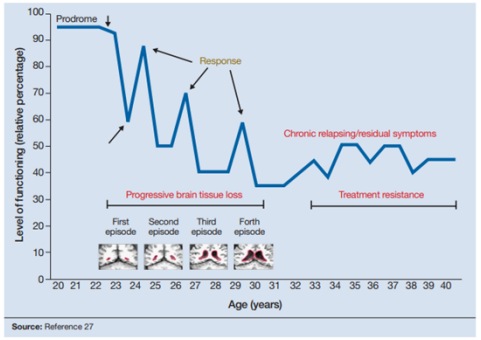
Progressive decline in schizophrenia

Deteriorating course, brain tissue loss, and treatment resistance with repetitive relapses after the first episode in schizophrenia



Source: Reference 27

(Gardner & Nasrallah, 2015)

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Eight dimensions of wellness

1. Emotional
2. Environmental
3. Financial
4. Intellectual
5. Occupational
6. Physical
7. Social
8. Spiritual

(Boston University Center of Psychiatric Rehabilitation, 2019)

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Gaps: Access to care

Higher proportion of people with mental illness uninsured compared to those without

- Less likely to have a primary care provider
- Screened less often for common conditions
- Diagnosis of schizophrenia or bipolar disorder correlated with admission to nursing home with more health-related deficiencies through government inspection

(Corrigan & Ballentine, 2021)

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Factors contributing to these disparities

(Corrigan & Ballentine, 2021)

System-level factors
- Health care delivery, coordination, financing
- Fragmentation

Provider-level factors
- Stigma, stereotypes, prejudice, and discrimination
- Misdiagnose or underdiagnosis of medical conditions
- Non-standard practice – screenings, procedures, medications

Individual-level factors
- Cognitive & social deficits
- Worse physical health

Social determinants of health
- Poverty, homelessness, incarceration, racial/ethnic minority

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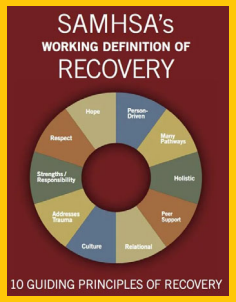
Provider's professional values and behavior



Delivering authentic, person-centered care

- Identification of strengths, resources, opportunities
- Empowerment for self-management of medical conditions
- Active participation and seeking collaboration
- Recognize degree of risk in self-determination
- Emphasize values of client, true partnership in shared decision making, embrace disagreement
- Compassionate care

(Corrigan & Ballentine, 2021)

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SAMHSA's Four Major Dimensions of Recovery

Health: Overcoming/managing conditions; making informed, healthy choices in support physical and emotional well-being

Home: stable/safe place to live

Purpose: Meaningful daily activities such as a job, school volunteerism, family caretaking, or creative endeavors, and the independence, income, and resources to participate in society

Community: Having relationships and social networks that provide support, friendship, love, and hope

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Solutions: Individual level

Community health workers	Health navigators
Also called *promotores de salud*, community health advisors, lay health educators, community health representatives	Also called patient navigators, peer navigators, patient advocates, service navigators
Usually do not have professional license	May be peers, may be laypeople, or have clinical license (nurse or social worker)
Provide general services in community (health fairs, door-to-door, community events)	Work one-on-one with specific individuals
CHW usually considered an occupation	Navigator usually defined by function or role
Are usually employed earlier in the health care continuum for linkage to care, screenings, outreach, education, and transportation	Are usually employed later in health care process (care coordination, health education, ongoing support, illness management)
Work in community settings	May work in community settings or at hospitals and clinics

(Corrigan & Ballentine, 2021)

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Serious mental illness: Psychiatric treatment and best practices

Q&A Please use the Q&A feature to send your questions to the moderator.

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Medication treatment for SMI

- Medications are often necessary and effective
  - Symptom reduction
  - Improvement daily functioning and overall wellness
- Costs of medication
  - Often significant side effects
  - Can contribute to physical health issues
  - Need monitoring

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Antipsychotics

"Multi-tool" of psychiatry with multiple indications

- Schizophrenia
- Schizoaffective disorder
- Bipolar Mania
- Bipolar Depression
- Unipolar Depression
- OCD
- Autism

Often used "off-label" as well

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Antipsychotics: Side effects

Greater risk of:

- Metabolic syndrome
- Obesity
- Cardiovascular disease
- Sudden cardiac death
- Myocarditis and cardiomyopathy
- Hypertension
- Diabetes
- Pneumonia

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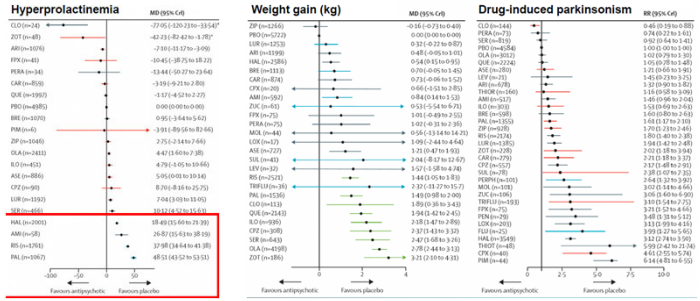
Antipsychotics: Side effects



(Huhn, et al, 2020)

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Consequences of psychotic relapse

1. Brain tissue loss
2. Treatment resistance
3. Disability
4. Incarceration and criminalization
5. Suicide
6. Homelessness
7. Early mortality
8. PTSD
9. Hopelessness, depression, and demoralization
10. Family burden

(Nasrallah, 2021)

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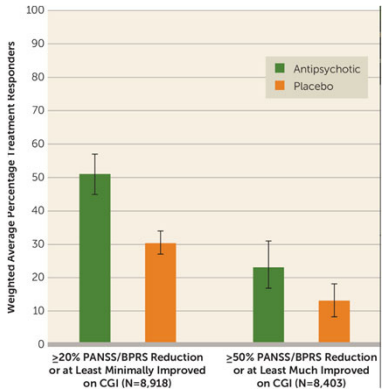
Antipsychotics: Schizophrenia



(Leucht, et al., 2017)

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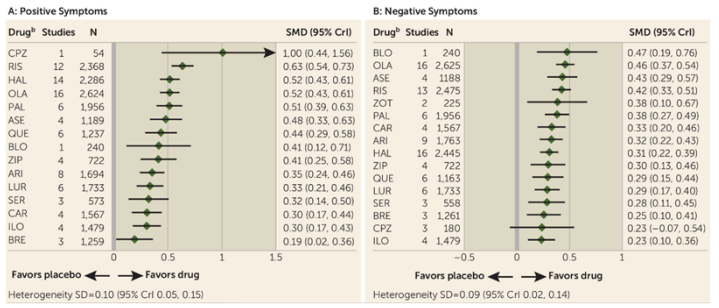
Antipsychotics: Schizophrenia



(Leucht, et al., 2017)

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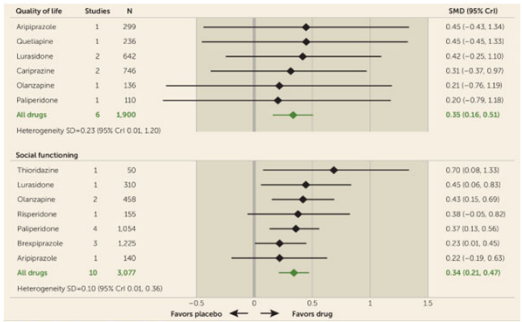
Antipsychotics: Schizophrenia



(Leucht, et al., 2017)

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Antipsychotics: Schizophrenia

- The drugs work
  - Positive and negative symptoms
  - Social functioning
  - Quality of life
- Drop out rates greater for those on placebo
- Side effects common

Emphasis on collaboration with treatment provider

(Leucht, et al., 2017)

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Antipsychotics: Clozapine

Clozaril package insert. HLS Therapeutics
https://www.drugs.com/pro/clozapine.html

WARNING: SEVERE NEUTROPENIA; ORTHOSTATIC HYPOTENSION, BRADYCARDIA, AND SYNCOPE; SEIZURE; MYOCARDITIS AND CARDIOMYOPATHY; INCREASED MORTALITY IN ELDERLY PATIENTS WITH DEMENTIA-RELATED PSYCHOSIS

See full prescribing information for complete boxed warning

- Severe Neutropenia: Clozapine tablets can cause severe neutropenia, which can lead to serious and fatal infections. Patients initiating and continuing treatment with Clozapine tablets must have a baseline blood absolute neutrophil count (ANC) measured before treatment initiation and regular ANC monitoring during treatment (2.1, 5.1).
- Clozapine tablets are available only through a restricted program called the Clozapine REMS (5.2).
- Orthostatic Hypotension, Bradycardia, and Syncope: Risk is dose-related. Starting dose is 12.5 mg. Titrate gradually and use divided dosages (2.2, 2.5, 5.3).
- Seizure: Risk is dose-related. Titrate gradually and use divided doses. Use with caution in patients with history of seizure or risk factors for seizure (2.2, 5.5).
- Myocarditis, Cardiomyopathy, and Mitral Valve Incompetence: Can be fatal. Discontinue and obtain cardiac evaluation if findings suggest these cardiac reactions (5.6).
- Increased Mortality in Elderly Patients with Dementia-Related Psychosis: Clozapine tablets are not approved for this condition (5.7).

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Antipsychotics: Clozapine

FIN11 Study

- Compared 66,881 patients compared to total population (5.2 million) of Finland
- Measured all-cause mortality of patients with schizophrenia during use of antipsychotic drug vs. no use of these drugs
- Of all antipsychotics measured, clozapine associated with lowest risk of mortality
- Long term exposure to any antipsychotic was associated with lower mortality than no drug use
- Inverse relation between mortality and duration of cumulative use of antipsychotic

(Tiihonen, et al., 2009)

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Antipsychotics: Long-acting Injectables

- Fewer emergencies and abrupt relapses
- Lower risk of overdose
- Improved patient and physician satisfaction
- No need for daily dosing improves adherence
- Reduced gastrointestinal absorption problems

(Taylor, et al., 2018)

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Antipsychotics: Long-acting Injectables

Summary of long-acting antipsychotic properties

Drug	Dose range (mg)	Frequency	Injection site(s)	$T_{1/2}$ (days)	Adverse effects[a]	Monitoring
First-generation antipsychotics						
Fluphenazine decanoate[12]	12.5 to 100	Every 2 to 4 weeks	Gluteal or deltoid	Approximately 14	Extrapyramidal symptoms, hypertension, drowsiness	Hypotension, tardive dyskinesia
Haloperidol decanoate[13]	10 to 15 times oral dose	Every 4 weeks	Gluteal or deltoid	Approximately 21	Tachycardia, hypotension, hypertension, extrapyramidal symptoms	Hypotension, tardive dyskinesia
Second-generation antipsychotics						
Aripiprazole monohydrate[14]	160 to 400	Monthly	Gluteal or deltoid	Approximately 46.5	Weight gain, akathisia, injection site pain, sedation	Metabolic monitoring, tardive dyskinesia
Aripiprazole lauroxil[15]	441 to 882	Monthly, or every 6 weeks (882 mg only)	Gluteal, deltoid (441 mg only)	29.2 to 34.9	Akathisia	Metabolic monitoring, tardive dyskinesia
Olanzapine pamoate[16]	150 to 405	Every 2 or 4 weeks	Gluteal	30	Headache, sedation, weight gain, cough, diarrhea, back pain, nausea, somnolence, dry mouth, nasopharyngitis, increased appetite, vomiting	3-hour post-injection observation at registered health care facility, metabolic monitoring, tardive dyskinesia
Paliperidone palmitate (1 month)[17]	39 to 234	Every 4 weeks	Gluteal or deltoid	25 to 49	Injection site reactions, somnolence/sedation, dizziness, akathisia, extrapyramidal disorder	Metabolic monitoring, tardive dyskinesia
Paliperidone palmitate (3 month)[18]	273 to 819	Every 3 months	Gluteal or deltoid	84 to 95 (deltoid) or 118 to 139 (gluteal)	Injection site reaction, weight gain, headache, upper respiratory tract infection, akathisia, parkinsonism	Metabolic monitoring, tardive dyskinesia
Risperidone microspheres[19]	12.5 to 50	Every 2 weeks	Gluteal or deltoid	3 to 6	Headache, parkinsonism, dizziness, akathisia, fatigue, constipation, dyspepsia, sedation, weight gain, pain in extremity, dry mouth	Metabolic monitoring, tardive dyskinesia

(Ellingrod, 2017)

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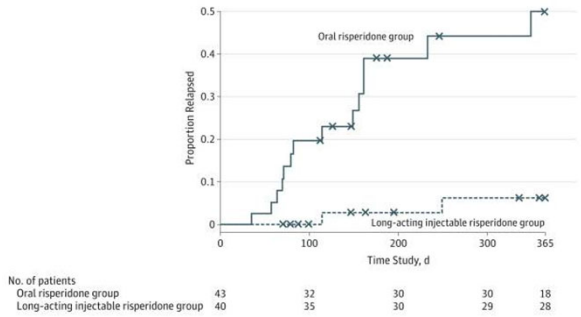
Antipsychotics: Long-acting Injectables



(Subotnik, 2015)

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Antipsychotics: Future

- Muscarinic Receptor Agonism
- TAAR1 Agonism
- Serotonin Receptor Antagonism/Inverse Agonism
- Glutamate modulation

Well tolerated and not associated with drug-induced parkinsonism, weight gain, sedation, sexual dysfunction, metabolic effects.

(Kantrowitz, et al., 2023)

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Other medications

Antidepressants
- SSRIs/SNRIs
- TCAs
- MAOIs
- bupropion, mirtazapine, bupropion/DXM

Mood stabilizers
- Lithium
- Anti-epileptics

Addiction
- buprenorphine, methadone
- naltrexone, naloxone

And many, many more…

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Future medication directions

- Ketamine – not inferior to ECT
- Esketamine
- MDMA?
- Psilocybin?

(Anand, 2023)

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Shared decision-making

Shifts away from paternalistic model

Respects patient's personal values, preferences, goals

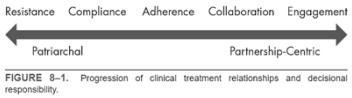

FIGURE 8–1. Progression of clinical treatment relationships and decisional responsibility.

1) Provider and patient are both active participants in the decision-making process
2) Provider and patient engage in a two-way exchange of information
3) The decision-making process is embodied by bidirectional expression of treatment preferences
4) Consensus is achieved regarding treatment implementation

(Corrigan & Ballentine, 2021)

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Shared decision-making

- Greater sense of personal control and empowerment
- Lower levels of persisting concern regarding illness and symptoms
- Improves patient knowledge
- Increased patient participation → improved outcomes, adherence

(Corrigan & Ballentine, 2021)

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Serious mental illness: Psychotherapy treatment and best practices

Please use the Q&A feature to send your questions to the moderator.

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Recovery-oriented care: An engaging and non-judgmental way of being

- Acknowledge and reject stigma: acknowledge beliefs and seek change
- Accept that individuals experiencing psychosis can and do recover
- Self-directed: awareness that recovery occurs when primarily directed by client
- Nonhierarchical relationship: minimize power with shared decision making
- Experience of psychosis can be understood
  - View client as a whole person
  - Psychotic experiences are on the continuum of human experience and able to be understood
- Anticipate different kinds of pain within recovery process

(Leonhardt, et al., 2020)

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Questions to learn about client's understanding of psychosis

1. Describe your concern and affect…
2. How does your community name this concern?
3. Let's explore concern's cause, how its made worse or better…
4. How serious is concern and how long will it last?
5. How do others in your community address this concern?
6. Who should be involved and what treatments are helpful?
7. What worries do you have about this concern?

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Measurement of psychosis

- Interview-based
  - Positive & Negative Syndrome Scale
- Self-report measures
  - Peters Delusions Inventory
  - Launay-Slade Hallucinations Scale
  - Beliefs about voices questionnaire
  - Vague insight into psychosis scale
- Evidence shows that appraisals of psychotic symptoms partly mediate distress and disability from them

(Kelly, 2020)

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Evidenced-based psychotherapy treatments

Individual interventions

- Skills Training*
- Cognitive Behavioral Therapy*
- Cognitive Adaptation Training
- Cognitive Remediation
- Illness self-management*
- Psychoeducation

Community/Support system interventions

- Early Intervention for 1st Episode Psychosis*
- Assertive Community Treatment
- Supportive Employment
- Family-Based Interventions

(Dixon et al., 2010; McDonagh, et al., 2022)

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Meta-analysis

TABLE 4. Overview of evidence for psychosocial interventions for prioritized outcomes for patients with schizophrenia[a]

Intervention	Functioning outcomes: Global	Social	Occupational	Housing	Quality of life	Self-harm reduction	Relapse	Core illness symptoms
Assertive community treatment		+	++	++				++
Cognitive adaptation training	+						+	
Cognitive-behavioral therapy	+ to ++	+ to ++	+ to ++		+			+ to ++
Cognitive remediation	+	+						
Early interventions for first-episode psychosis	++	++		+	++	+	++	+
Family interventions		+	+			+	+ to ++	+
Illness self-management							+	+ to ++
Psychoeducation	+						++	
Social skills training		+						+
Supported employment			+					
Supportive therapy	+	+						

[a] Evidence for improvement: +, low; ++, moderate.

(McDonagh, et al., 2022)

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Individual interventions

Intervention	Techniques
Psychoeducation	Information on diagnosis and treatment
Social skills training	Role modeling, positive reinforcement, behavioral rehearsal targeting social competence (perception, cognition, behavioral responses)
Cognitive behavioral therapy	Awareness of thoughts, feeling, & behaviors to teach coping skills allowing management of illness-related distress, symptom exacerbation recognition, maladaptive belief evaluation
Cognitive adaptation training	Environmental stimuli (signs, alarms, labels) to encourage ADLs, self-care, med mgmt.
Cognitive remediation	Cognitive practices/strategies to improve memory, attention, executive functioning, social cognition
Illness self-management	Illness education/management, medication adherence, social skill acquisition, develop relapse prevention plan

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Community/Support system interventions

Intervention	Techniques
Assertive community treatment	Multidisciplinary team delivers community-based care integrating psychosocial interventions to address functional impairments and reduce frequent hospitalizations
Early interventions for 1st episode psychosis	Multidisciplinary team delivers psychopharmacological treatment, family education, psychoeducation, CBT, vocational interventions, peer support
Family interventions	Education to family on treatment of psychosis and family collaboration. Promote use of problem solving, coping, communication, illness mgmt.
Supported employment	Ongoing support to assist client in competitive employment. Teach skills and strategies to maintain employment

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Social skills training

- Address poor interpersonal functioning to improve verbal and non-verbal communication
- Improves behavioral skills, social role function, specialized skills, self-efficacy
- Group format
- Instruction
  - Modeling
  - Role play and rehearsal
  - Positive feedback and shaping
  - Repeating practice

(Bellack, et al., 2004)

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Social skills curricula

- Conversational skills
- Assertiveness (assertion) training
- Dating skills
- Prevocational skills
- Workplace skills
- HIV prevention skills
- Medication management skills
- Substance abuse skills
- Skills for living with others
- Skills for improving family interactions

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Recovery-oriented CT-SMI: Core features

Access and Energize
- Establish genuine connection
- Get to know person

Develop
- Identify aspirations
- Find meaning behind aspirations

Strengthen
- Draw attention to positive experiences
- Develop resiliency around challenges

Actualize
- Collaboratively break down aspirations (SMART goals)
- Address challenges
- Find meaningful role connection

(Beck, et al., 2020)

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Cognitive Behavioral Therapy for Psychosis (CBT-P)

- Establish strong therapeutic alliance
- Assessment: clarify experience-appraisal links
- Shared problem/goals list; formulation
- Education (biopsychosocial model)
  - Normalize experience, not get rid of psychosis
- CBT coping strategies: reduce stress hallucinations/delusions
  - Reality testing experiments
- Reduce relapses

(Johns, et al., 2020)

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Navigating CBT-P critiques with 3rd wave care

- CBT-P: de-emphasis emotions, overemphasis on symptom change, failure to focus on mechanisms of change
- 3rd Wave Therapies: ACT and Compassion-Focused Therapy
  - Mindfulness and acceptance alter how clients relate to psychosis
  - More research evidence needed

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Illness management and recovery modules

- Strategies for recovery
- Practical facts about mental illness
- Stress-Vulnerability model and strategies for treatment
- Building Social Support
- Using Medications Effectively
- Drug and Alcohol Use
- Reducing Relapses
- Coping with Stress
- Coping with problems and persistent symptoms
- Getting your needs met in the mental healthcare system

(Mueser, et al., 2012; SAMHSA, 2009)

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Case example: 2023 article about Native American misdiagnosis

Non-native health care providers assume patients are exhibiting symptoms of mental illness or drug problems when in fact the patients are discussing their mental health struggles in spiritual terms.

A Native American patient was suffering from anxiety, and the man shared with providers that the birds and squirrels in his yard helped him understand his illness.

The psychologist intervened and stopped providers from diagnosing him with schizophrenia because he was simply finding meaning and comfort to help him process his illness.

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Time for questions and answers…

- Please use the Q&A button – not the chat – to submit your question
- If we don't get to your question, please feel free to send an email to **webinars@rogersbh.org** and we will follow-up with you

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Key take-home messages

- SMI goes beyond simply treating a diagnosis. Treatment approach can be complex and multifaceted
- Psychopharmacological and psychosocial treatment in concert and offered through early intervention tend to lead to the best clinical outcomes
- Recovery-oriented professionalism promotes positive patient outcomes
  - Shared-decision making

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About the presenters….

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