The Role of Psychosocial Therapies in Schizophrenia

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Disclosures

If you have disclosures, state:

I have the following relevant financial relationship with a commercial interest to disclose:

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Factors Encouraging Psychosocial Treatments

- Although antipsychotics remain a cornerstone of treatment, appreciation of limitations

- Recovery movement empowered clients to take a more active role in treatment

- Model of psychotic symptoms as on a continuum with normal experiences

- Efficacy data support 7 evidence-based practices (EBPs)

The Stress Vulnerability Model
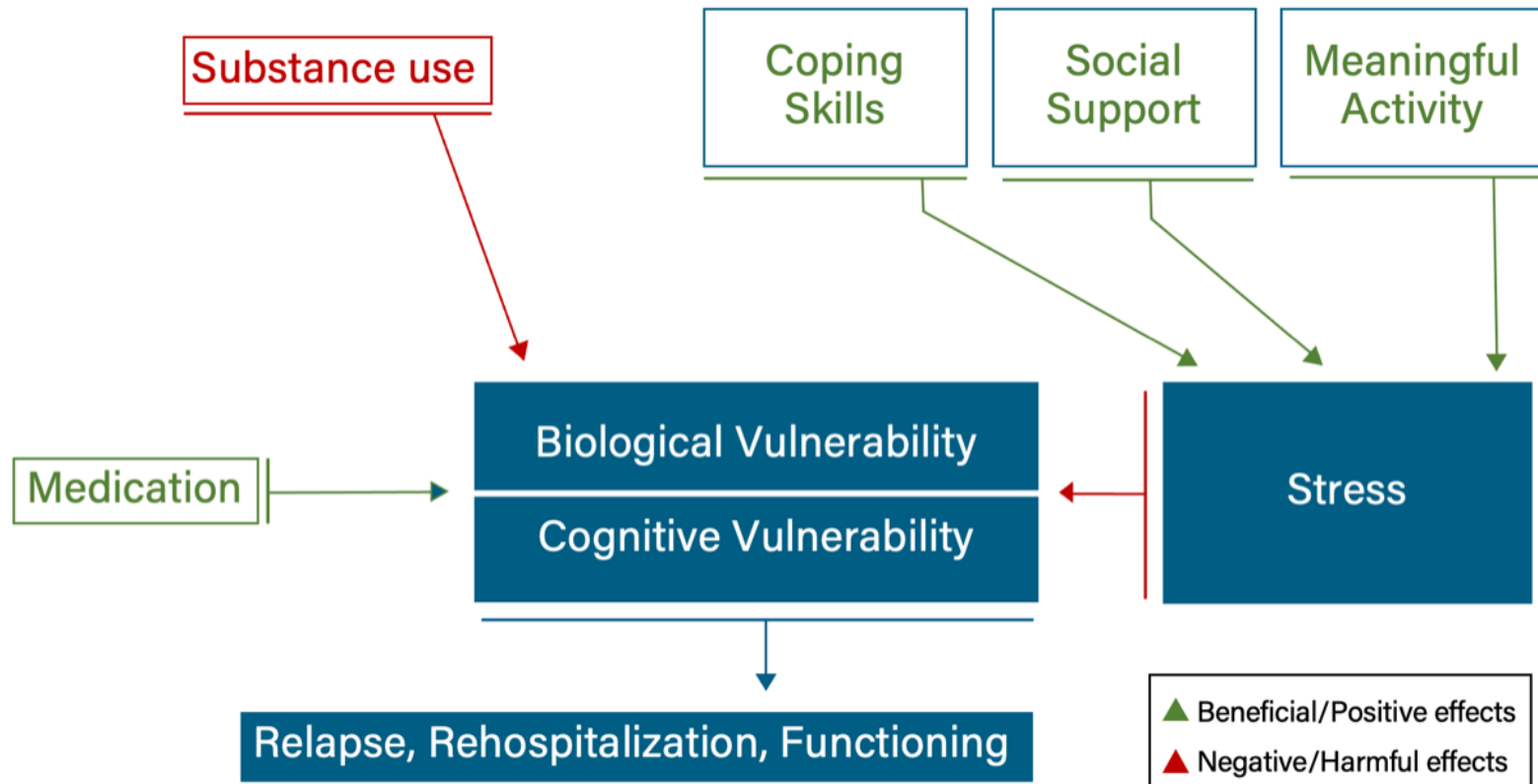
Evidence-Based Psychosocial Treatments and Their Effects

	Symptoms	Functioning	Relapse
Assertive Community Treatment*	+	++	+++
Supported Employment*		+++	
Illness Management and Recovery*	++	++	+
Social Skills Training	++	++	
Cognitive Remediation	+	+	
Cognitive Behavioral Therapy	+	+	+
Family Psychoeducation*			+++

*Toolkits available: https://store.samhsa.gov

Assertive Community Treatment (ACT)

What Defines High Fidelity ACT?

- Intense staffing (1:10 ratio of clinicians to clients compared to 1:30 or more in standard case management)

- Provide services in the community

- Shared caseloads across clinicians to reduce burnout

- Full-time coverage by the team, including crises

- Interdisciplinary (i.e., including a psychiatrist, nurse, and specialists in areas such as vocational rehabilitation and co-occurring substance abuse)

- Provides a wide range of services: medication management, practical supports (e.g., securing housing, paying bills), and rehabilitation

Characteristics of Low Fidelity ACT

- Uses primarily a case management model
- Everyone is a generalist; roles are interchangeable
- Assertive = Coercive
- Not time-limited

Outcomes Research on ACT

- More housing stability and reduces homelessness

- Reduces hospitalizations

- Promotes retention in treatment

- Decreases symptoms

- High consumer and family satisfaction

- Greater benefit in the United States than abroad

(Bond et al., *Dis Manag Health Out,* 2001)

Cost Effectiveness is Highest When:

- Offered to high service utilizers

- Implemented with high fidelity

- During first two years of service use

(Latimer et al., *Can J of Psychiatry*, 1999; Cuddeback et al., *Psychiatr Serv*, 2013)

Supported Employment

Supportive Employment: Rationale

- Only 10- 20% of people with schizophrenia work, but more want to

- Disability is a life of poverty

- Work is good medicine—associated with improvements in self-esteem, sense of purpose, and reductions in symptoms

Supported Employment: Model

- Principle of "zero-exclusion"
- Rapid search for competitive jobs in the community
- Provide follow-along supports
- Respect for client preferences in terms of desired job type
- Whether to disclose one's psychiatric disability to an employer is discussed
- Integration of vocational and clinical services, including weekly meetings between service providers.
- Benefits counseling provided to inform clients about the impact of working on their disability income and health insurance

Meta Analysis of RCTs Comparing Efficacy of SE to Control Vocational Rehabilitation
(4 studies; N = 681)
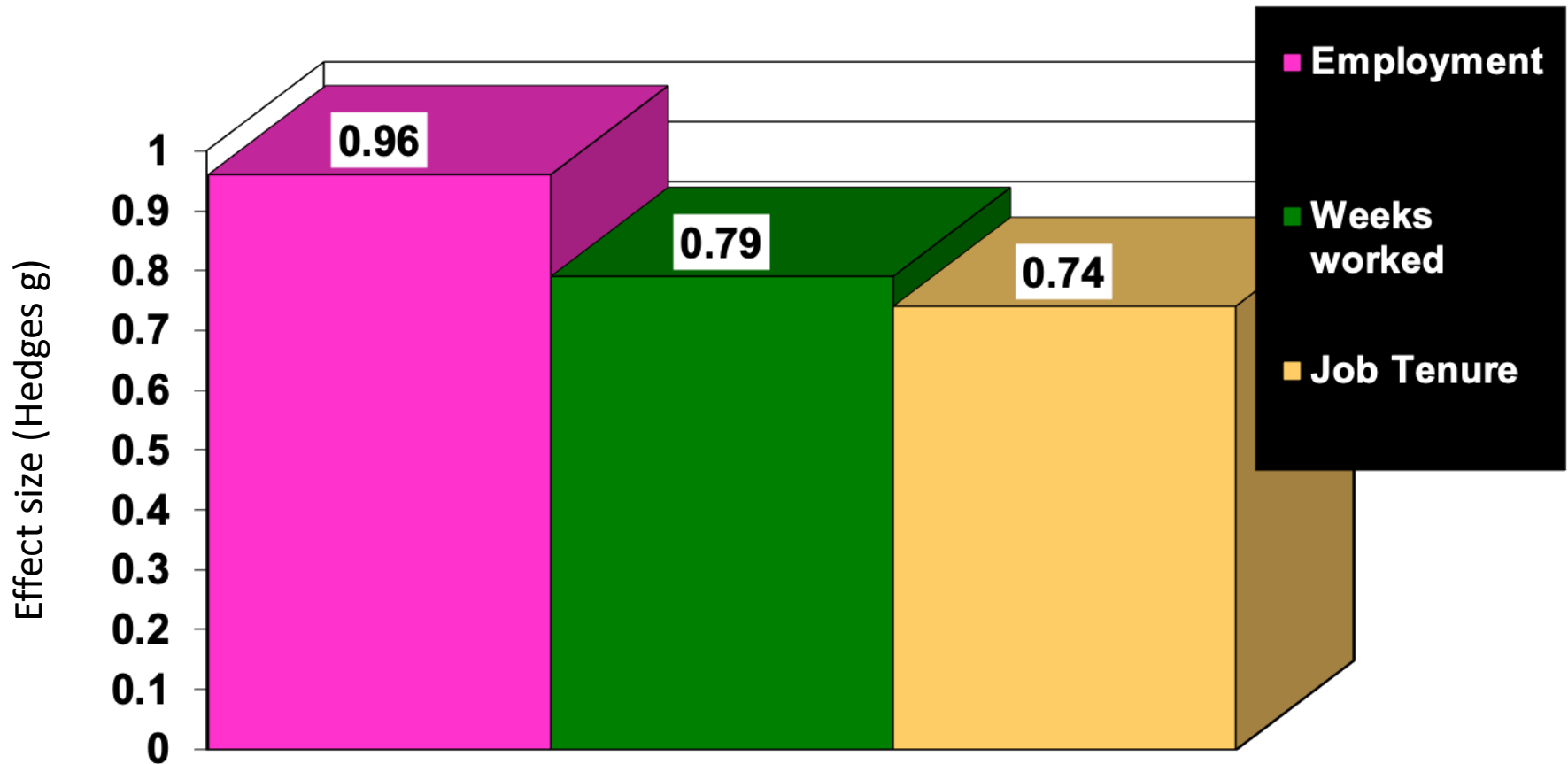
(Campbell et al., *Schizophr Bull*, 2011)

Illness Self-Management

IMR: Rationale

- Learning self-management strategies promotes better illness outcomes

- People need education to make informed treatment decisions

- Medication non-adherence is a common reason for relapse

- Guidance on how to manage persistent symptoms is helpful

IMR: Effective Components

- Psychoeducation

- Behavioral tailoring for medication adherence

- Relapse prevention training

- Coping skills training

- Social skills training

(Mueser et al., *Psych Svcs*, 2002)

IMR: Structure and Model

- 5-6 months of twice weekly group or individual over 5-10 months
- 5 effective components
    - 1) Psychoeducation
    - 2) Behavioral tailoring for medication adherence
    - 3) Relapse prevention training
    - 4) Coping skills training
    - 5) Social skills training

- Practitioners use motivational, educational, and cognitive behavioral techniques
- Clients set and pursue personal recovery goals and practice skills in session
- Home assignments developed collaboratively

MGH MASSACHUSETTS GENERAL HOSPITAL
PSYCHIATRY ACADEMY

IMR Modules

1. Recovery Strategies
2. Practical Facts about Mental Illness
3. The Stress-Vulnerability Model
4. Building Social Support
5. Using Medication Effectively
6. Drug and Alcohol Use
7. Reducing Relapses
8. Coping with Stress
9. Coping with Problems and Persistent Symptoms
10. Getting Your Needs Met in the Mental Health System
11. Healthy Living
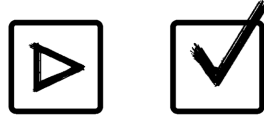
Translations of IMR

- Arabic
- Chinese
- Danish
- Dutch
- French
- Hebrew
- Hmong
- Italian
- Japanese
- Korean
- Laotian
- Malay

- Norwegian
- Portuguese
- Russian
- Somalian
- Spanish
- Swahili
- Swedish

Meta Analysis of RCTs Comparing Efficacy of IMR to Control Treatment
(37 studies; N = 5790)
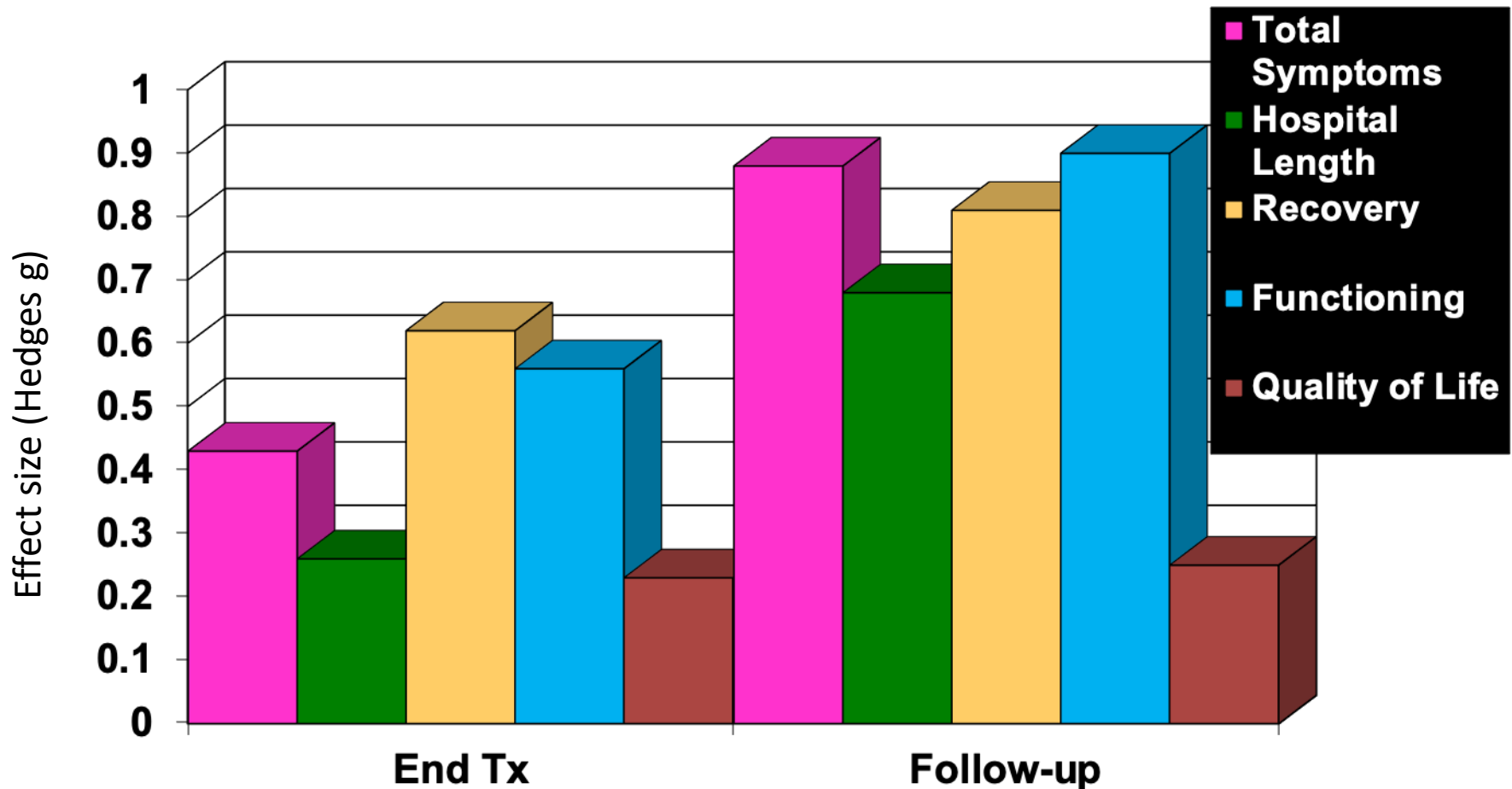
(Lean et al., *Br J Psychiatry*, 2019)

Social Skills Training Embedded in IMR

Starting a Conversation

Practicing can make you feel more confident, and it can help you be more effective in your life.

STEP 1
Review the steps of the skill

▷ Look at the person and smile.

▷ Greet the person, saying something like "Hi," or "Hello."

▷ Ask a simple question like "How's it going?" Or, bring up a simple topic like sports, or the weather.

▷ Keep the exchange light and brief.

STEP 2
Watch a demonstration of the skill
Your E-IMR practitioner will demonstrate how to use the steps of this skill.

STEP 3
Review the demonstration
Your E-IMR practitioner will ask for feedback about the demonstration. The practitioner will ask questions like: Did I follow the steps? How effective do you think I was?

STEP 4
Try it out
Now is your chance to try out the skill. Describe with whom, when, and where you would use the skill. Your E-IMR practitioner will play the part of the other person.

STEP 5
Get feedback
After you try it out, your E-IMR practitioner will guide a discussion about: what you did well, how effective your performance was, and (possibly) how you could do it even better.

STEP 6
Continue practice and feedback
Your E-IMR practitioner will help set up more situations to try it out if needed. After each practice, your practitioner will guide a review.

STEP 7
Try it out on your own
Plan with whom, when, and where you could practice this skill on your own.

KEY POINT
Before starting a conversation, it's really helpful to have

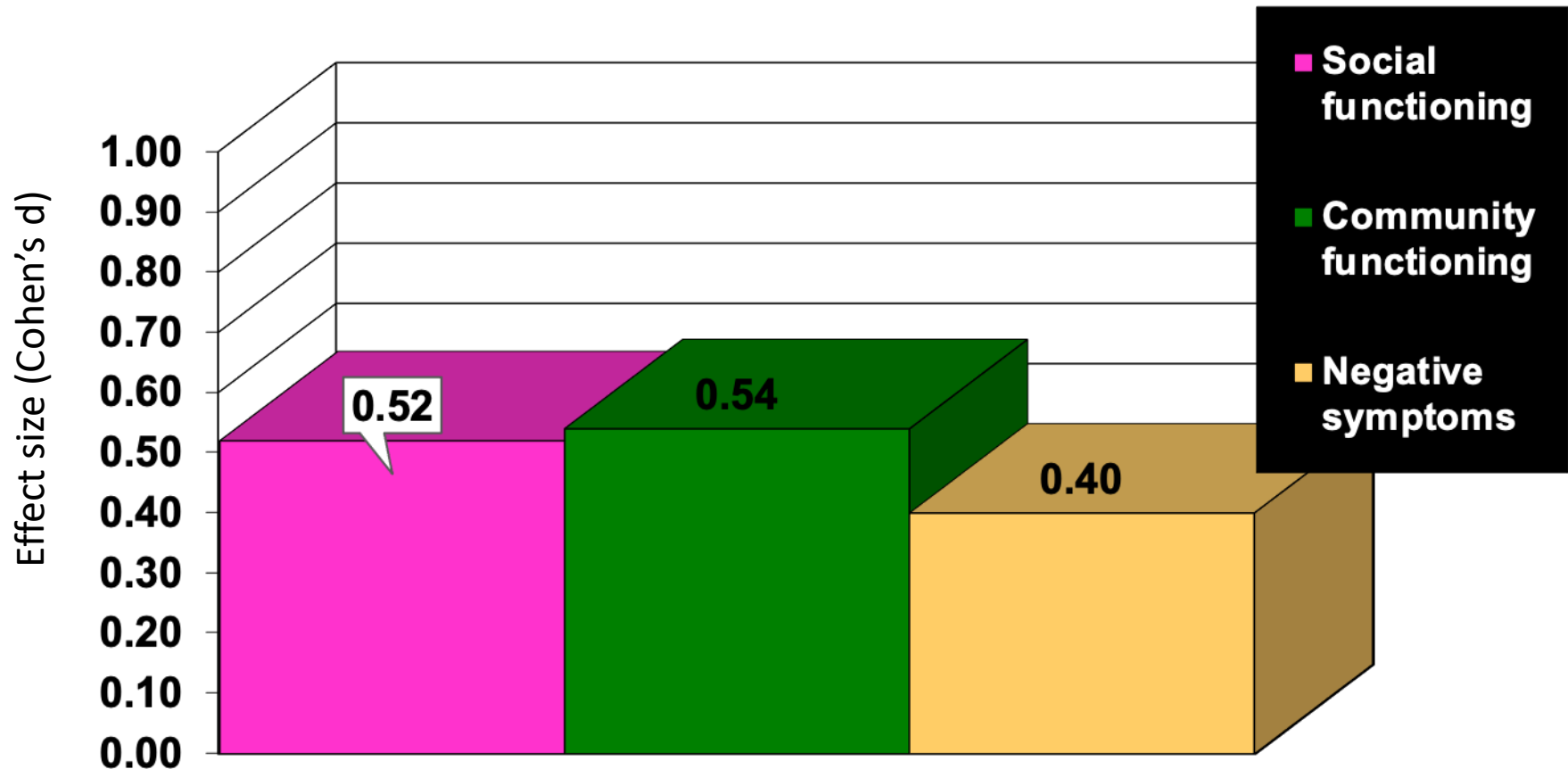# Social Skills Training: Rationale

- Common deficits in schizophrenia:

    – Social-emotional perception

    – Social cognition

    – Social behavior

SST: Components

- Role modeling

- Behavioral rehearsal

- Positive reinforcement

- Corrective feedback

- Home assignments to practice skills and promote generalization In-vivo and indigenous supporters

Meta Analysis of RCTs Comparing Efficacy of Social Skills Training to Control Treatment
(22 studies;N = 1521)

Effect size (Cohen's d)

- Social functioning
- Community functioning
- Negative symptoms

0.52

0.54

0.40

1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00

(Kurtz et al., *JCCP,* 2008; see also Turner et al., *Schiz Bull*, 2018)

Cognitive Remediation

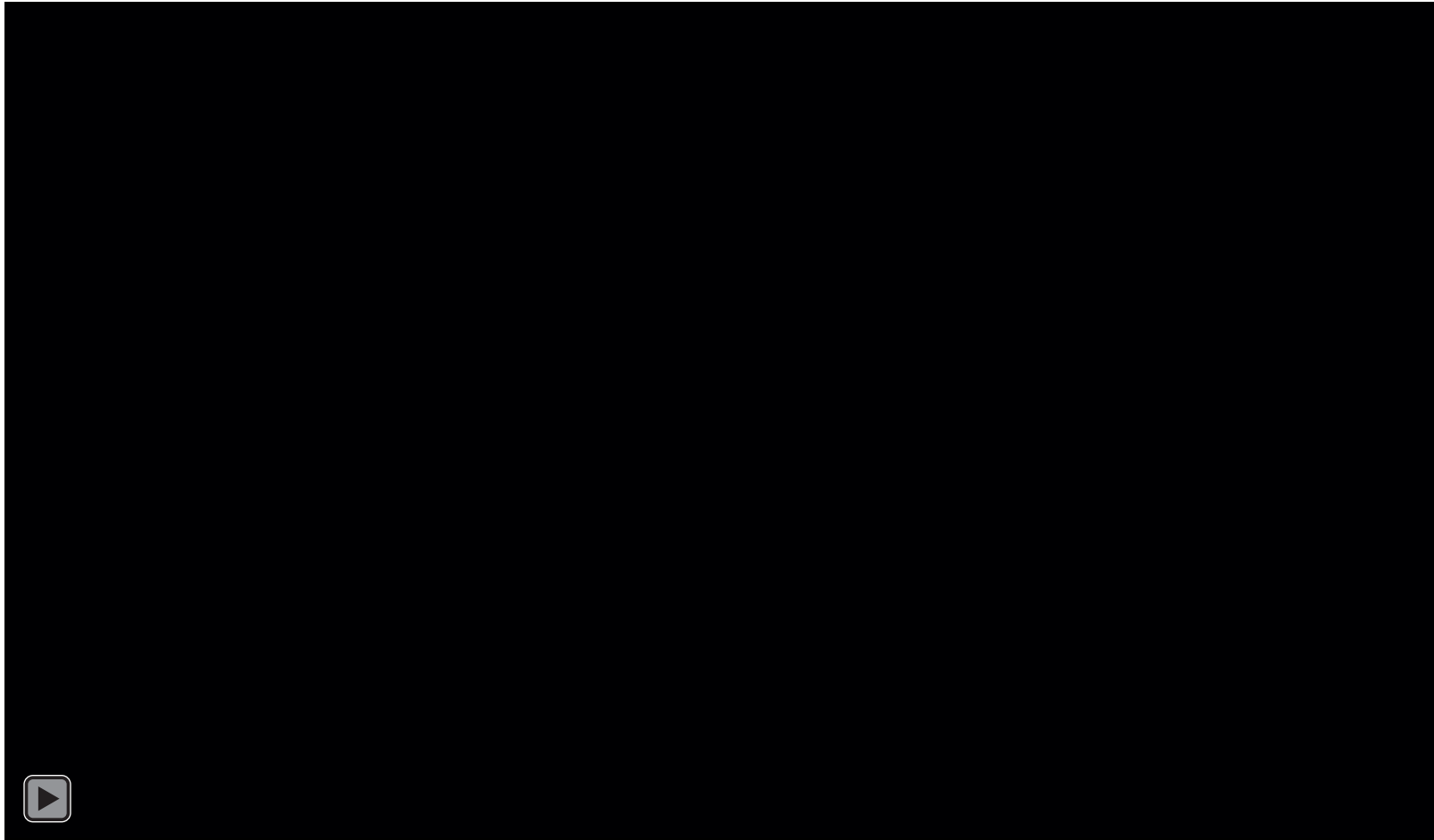# Cognitive Remediation: Rationale

- Appreciation for central role of cognitive impairment in schizophrenia

- Cognitive functioning associated with negative symptoms and predicts functioning

- Cognitive impairments diminish benefit from other psychosocial treatments

Cognitive Remediation: Components

- Computer-based cognitive practice exercises with or without strategy coaching

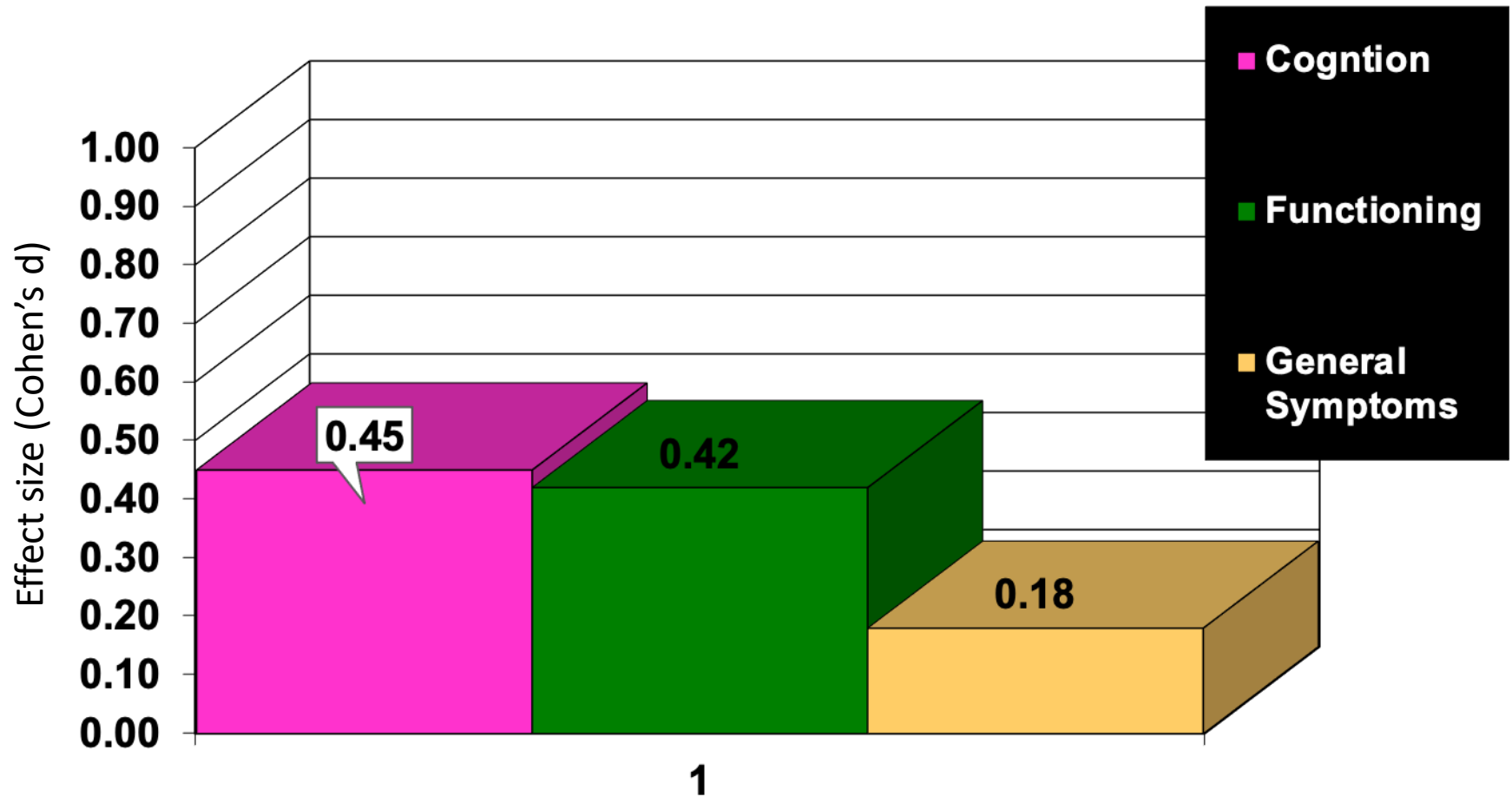- 2 sessions per week for 3-6 months

Example : "Falling Stars"

SAMHSA
Substance Abuse and Mental Health
Services Administration

Mazes

Meta Analysis of RCTs Comparing Efficacy of Cognitive Remediation to Control Treatment
(40 studies;N = 2104)

(Wykes et al., *Am J Psychiatry,* 2011)

Summary of Outcomes

- Moderate effects on cognition and functioning

- Appears to potentiate effects of other rehabilitation interventions

Does Adding CR Improve Work Outcomes for Non-Responders?

- Non-responders defined as:

  - No work $\geq$ 3 months despite receiving supported employment (SE), or
  - Unsuccessful job ending (fired or quit with no other job) within last 3 months of enrollment in SE

- Design: RCT in 107 participants comparing employment outcomes in Enhanced SE vs. CR + E-SE
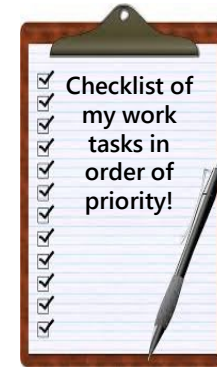
CR: Components

Computer cognitive training
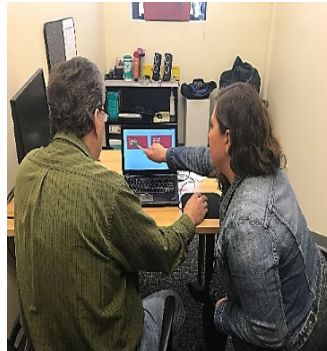
Strategy coaching with cognitive training

Checklist of my work tasks in order of priority!

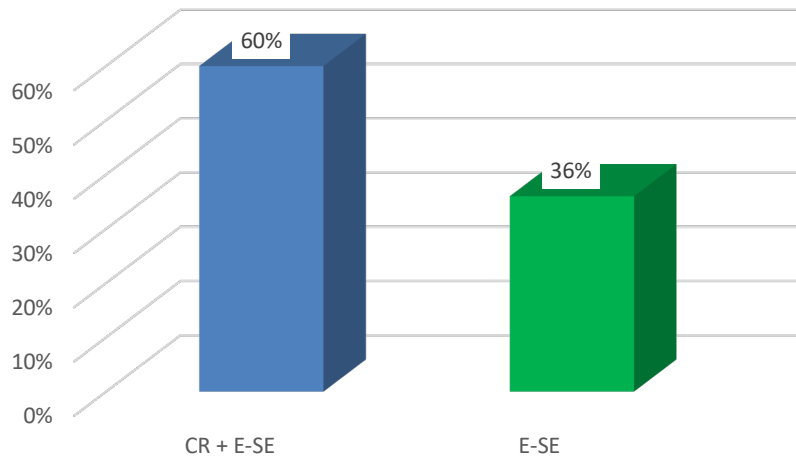**Teaching self-management**

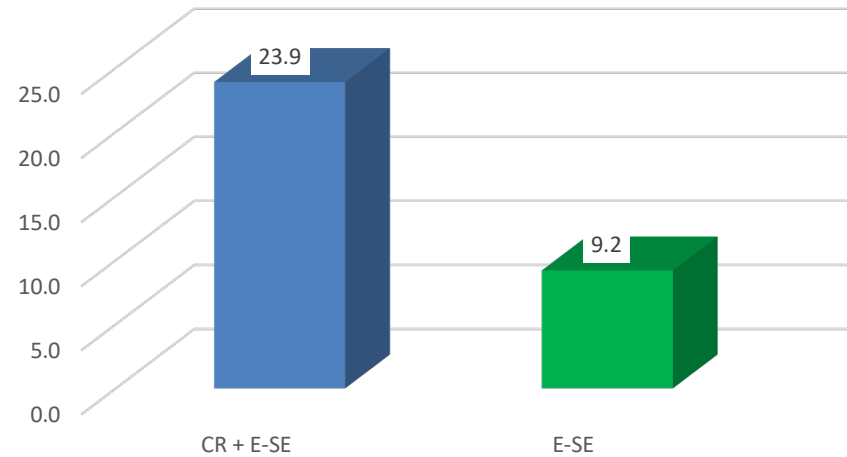1

2

3

Examples of Self-Management Strategies

- Reduce distractions (e.g., turn off phone)

- Create a "memory spot"

- Prioritize work using a checklist

- Identify and highlight personal strengths (e.g., in a job interview)

- Identify and modify self-defeating thoughts (e.g., "No one will hire me." "I won't ever learn this." "I'm going to get fired.")

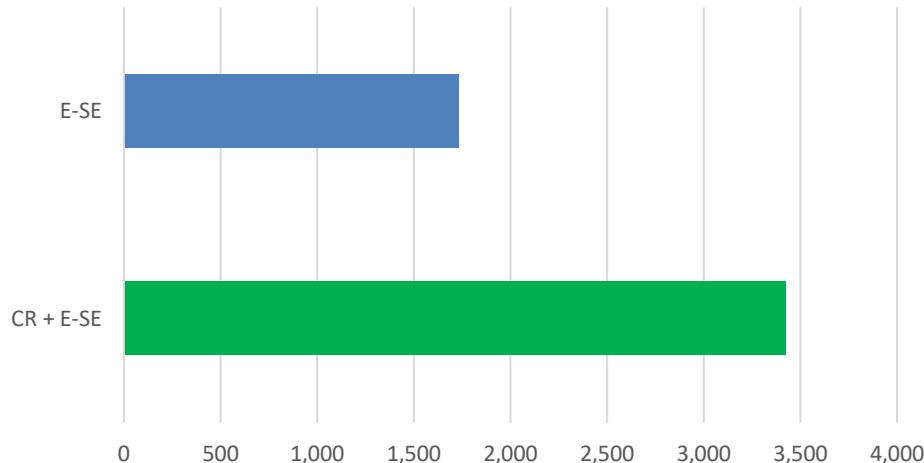# Outcomes on Rates of Obtaining Work, Work Tenure, and Wages

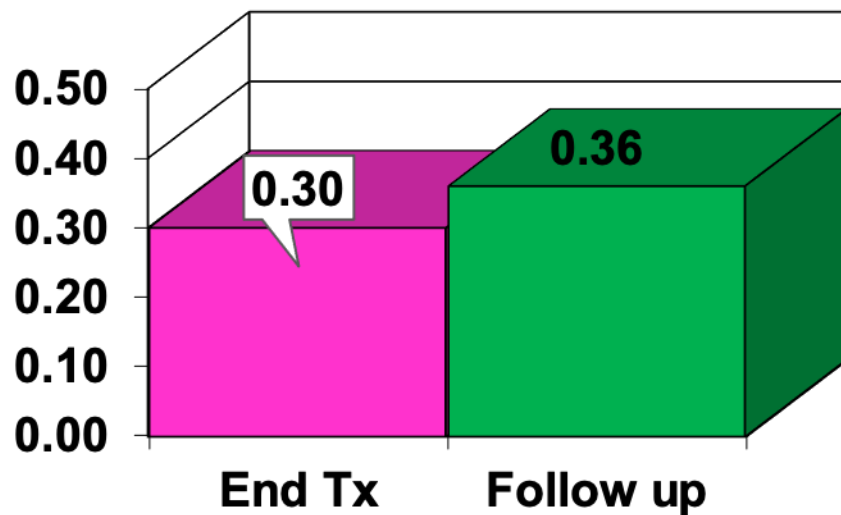McGurk et al., 2015, *Am J of Psychiatry*

Effects Beyond Specified Treatment Targets

Meta-Analysis of RCTs of CR Looking at Effects on Negative Symptoms

- 45 studies, 2511 (15 studies had f/u data)
- 7 methodologically rigourous studies had large ESs; these combined with rehabilitation services (e.g., supported employment)

(Cello et al., *Clin Psychol Rev,* 2017)

Moderators of Treatment Effects

Does Age Moderate Effect of CR?

- 14 studies; N = 1084 people with a diagnosis of schizophrenia

- M/SD =36.6 (11) yrs

- No differences in CR benefit when age treated as a continuous variable

- Analyses using median split at 36 yrs showed a 24% greater increase in executive functioning in the younger group

(Seccomandi et al., *Schizophr Res*, 2021)

# Cognitive Behavioral Therapy for Psychosis (CBTp)

Adjunctive Cognitive Behavioral Therapy for Psychosis (CBT): Rationale

- Persistent psychotic symptoms in 25-40% of people with schizophrenia
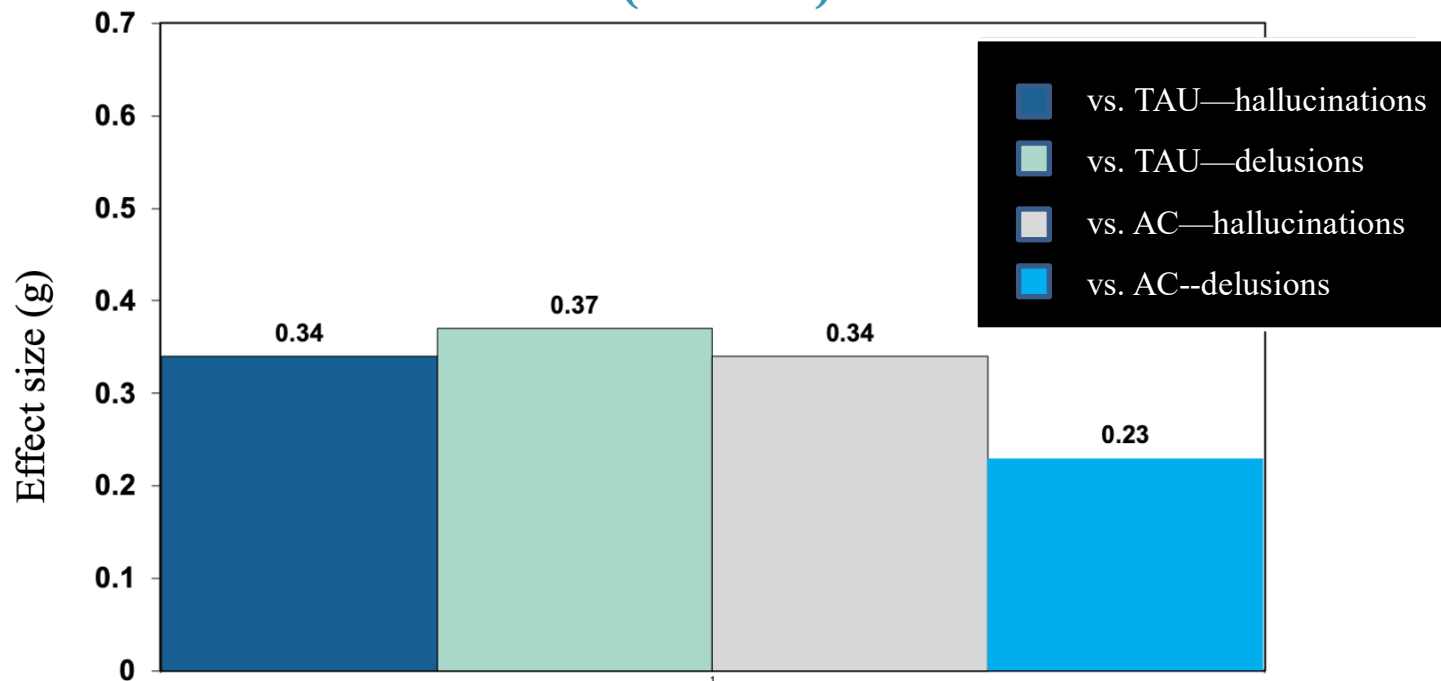
- Persistent psychosis associated with relapse, rehospitalization, and longer hospital stays

- High distress, depression, & demoralization associated with persistent psychotic symptoms

- Barrier to social relationships

Meta Analysis of RCTs Comparing Efficacy of CBTp to Control Treatment
(34 studies; N = 1964)
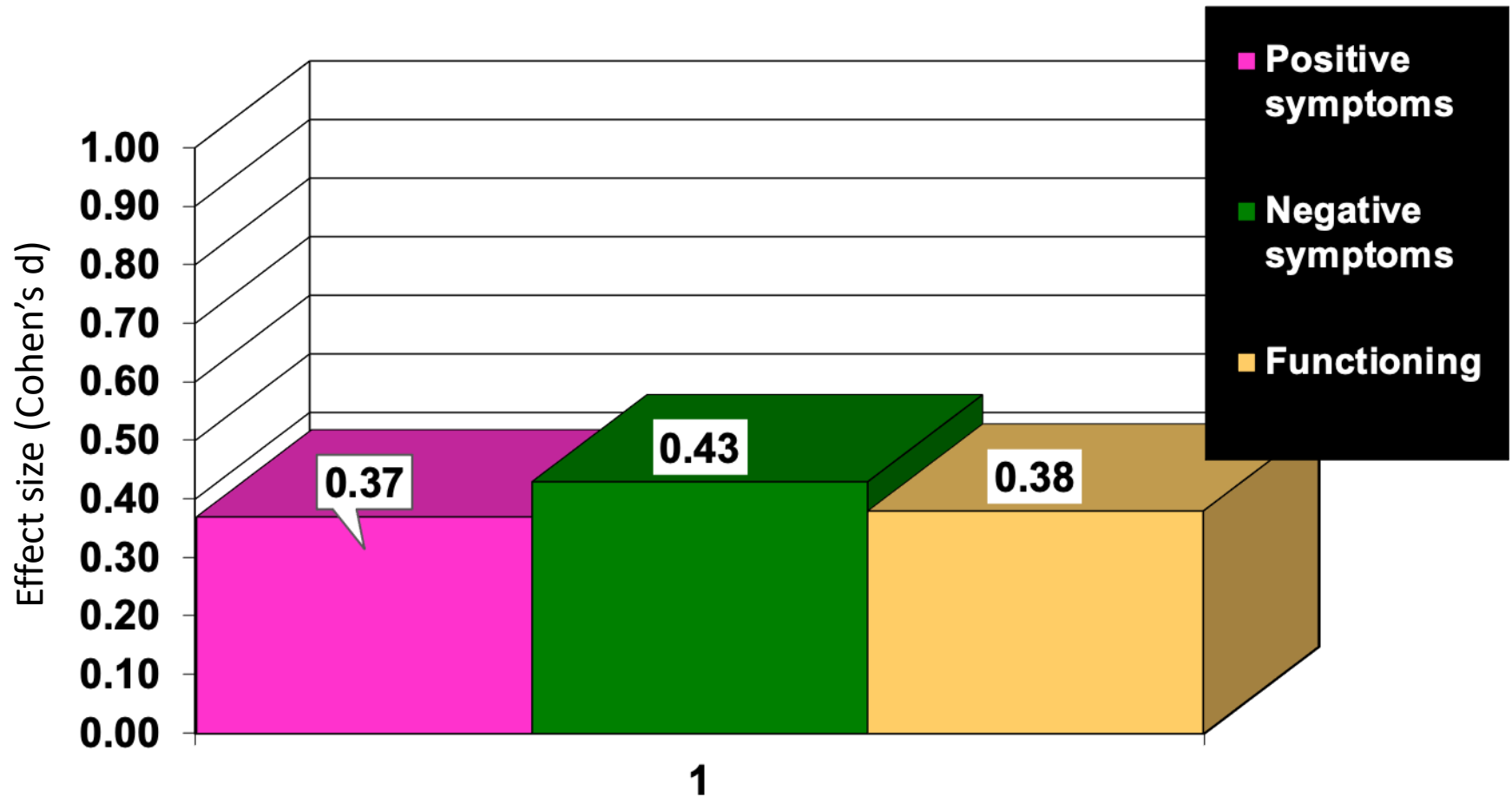
(Wykes et al., *Schizophr Bull,* 2008)

Meta Analysis of RCTs Comparing Efficacy of CBTp to Control Treatment on Hallucinations and Delusions
(N = 2407)

Chart legend:
- vs. TAU—hallucinations
- vs. TAU—delusions
- vs. AC—hallucinations
- vs. AC--delusions

Y-axis: Effect size (g)

Values: 0.34, 0.37, 0.34, 0.23

TAU = treatment as usual; AC = active control

(Turner, SZ Bull, 2020)

CBTp: Structure and Content

- Weekly 45 min sessions over minimum of 6 months

- Core components:

  1) Alliance

  2) Normalization and destigmatization

  3) Formulation using CBT model

  4) Coping strategy enhancement
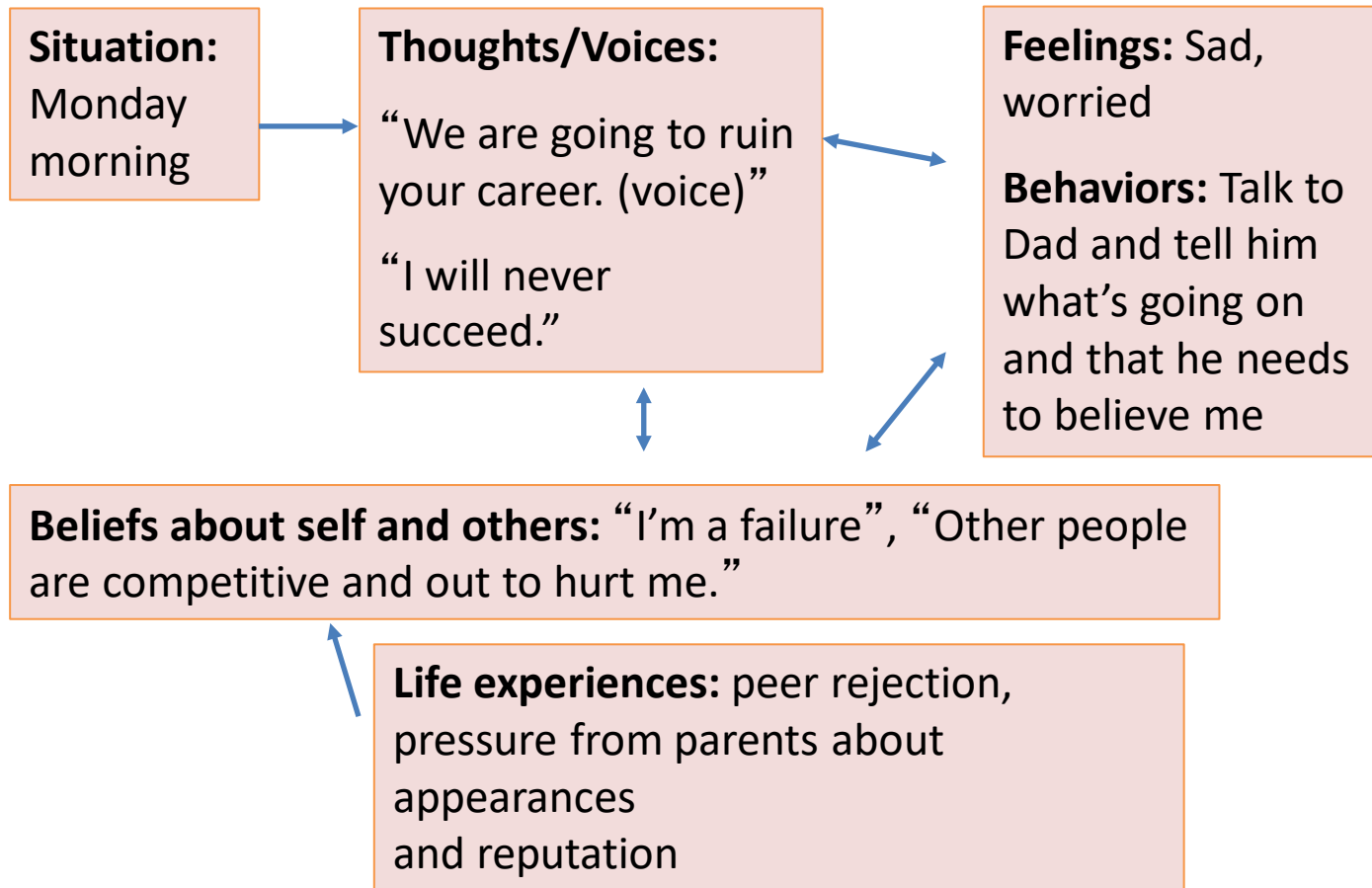
  5) Cognitive restructuring

Case Example A 32-yr old unemployed college graduate

Symptoms: Paranoia, auditory and somatic hallucinations, anxiety, depression

Functional difficulties: Unemployed, socially isolated, agoraphobic and very dependent on parents

Values: Employee identity, helpful to parents, upstanding member of the community

Case Formulation

Situation: Monday morning

Thoughts/Voices:

"We are going to ruin your career. (voice)"

"I will never succeed."

Feelings: Sad, worried

Behaviors: Talk to Dad and tell him what's going on and that he needs to believe me

Beliefs about self and others: "I'm a failure", "Other people are competitive and out to hurt me."

Life experiences: peer rejection, pressure from parents about appearances and reputation

Technological Innovations

Ways to Use Technology

- Internet-based (e.g., HORYZONS)

- Smartphone (e.g., Actissist, FOCUS)

- Face-to-face therapy + smartphone, (e.g., SAVVY study--mobile phone support to enhance coping strategies for hallucinations)

- Face-to-face therapy augmented with virtual reality (VR)—(e.g., AVATAR, VR + SST)

Innovative Coping Strategy Enhancement: AVATAR therapy

- Invented by Julian Leff (2008)
- Voice hearers dialog with an avatar of their persecutor
- Avatar's image is created by the voice hearer
- Voice is the therapist's and is digitally modified to match the persecutor's voice
- Voice hearer is coached in making more assertive responding to the avatar
- Avatar becomes less hostile and concedes power over course of practice sessions

Innovations in Coping Strategy Enhancement: AVATAR Therapy

Summary

- Range of psychosocial EBPs; implementation is challenging due to a range of issues (i.e., workforce, training resources, models of care that do not translate well to real world settings)

- Appear to be synergistic effects of combining EBPs and effects beyond specified intervention targets

- Widespread uptake of IMR due to broad applicability

- Challenges and opportunities provided by technological innovations

Thank you!