

# Understanding Dropout from Treatment for Problem and Disordered Gambling

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# TIGER

- ◆ State-funded institute with outpatient clinic and research lab
- ◆ Housed within clinical psychology program @ University of Memphis
- ◆ New clinic added to
  - ◆ 3 clinical psychologists
  - ◆ 7 clinical psychology PhD students
  - ◆ Dozens of master's students



# Funding



INTERNATIONAL CENTER FOR RESPONSIBLE GAMING

# Learning Objectives

1. Identify the preferred terms for individuals discontinuing treatment
2. Determine what percentage of individuals discontinue treatment and when discontinuation occurs
3. Understand how to monitor treatment outcomes

# Available Treatments

- ◆ Psychotherapy
- ◆ Feedback interventions
- ◆ Self-guided treatments
- ◆ Community resources

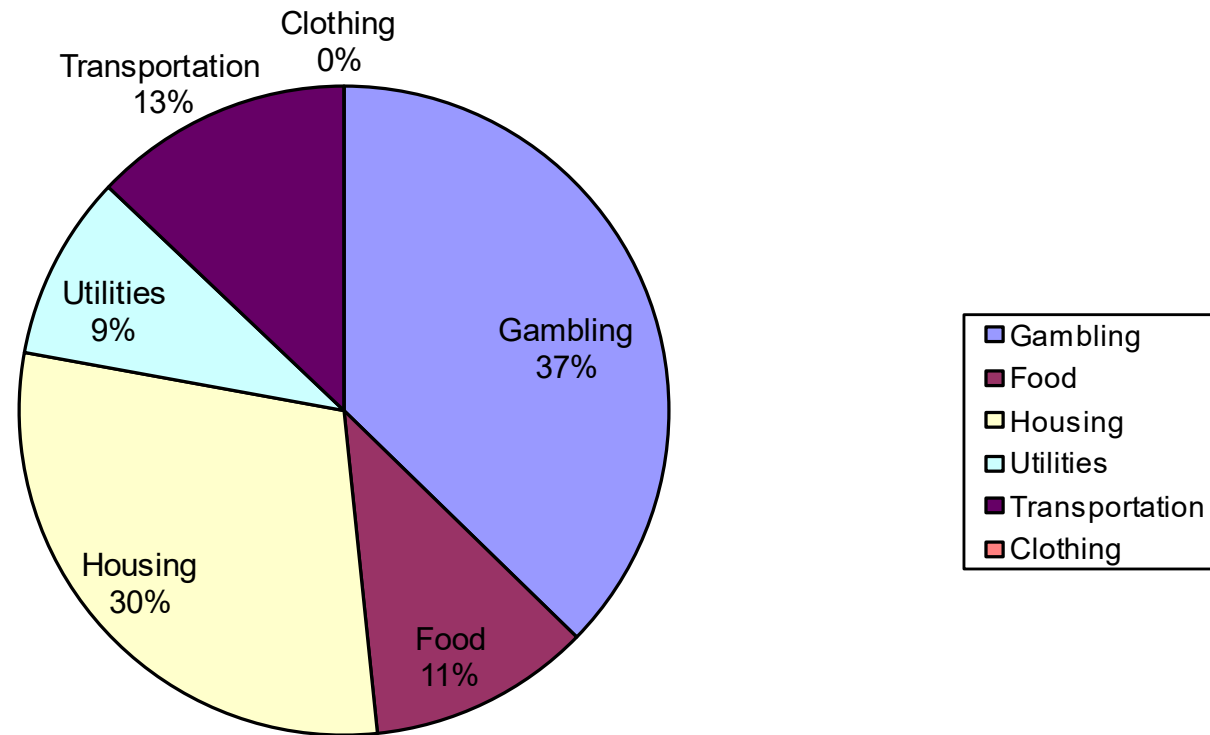
\*\*no FDA approved medications for gambling disorder

# Psychotherapy

- ◆ Cognitive-behavioral techniques
- ◆ Motivational techniques
- ◆ Integrative therapies
- ◆ Twelve-step facilitation

# Feedback Interventions

Expenditures Over the Past 6 Months



# Self-Guided Treatments

- ◆ Internet treatments
- ◆ Self-help workbooks

\*\*Face-to-face treatments show stronger effects than self-guided

Carlbring & Smit (2008) *Journal of Consulting and Clinical Psychology*

Hodgins et al. (2009) *Journal of Consulting and Clinical Psychology*

Goslar et al. (2017) *Journal of Behavioral Addictions*



# The Strongest Evidence

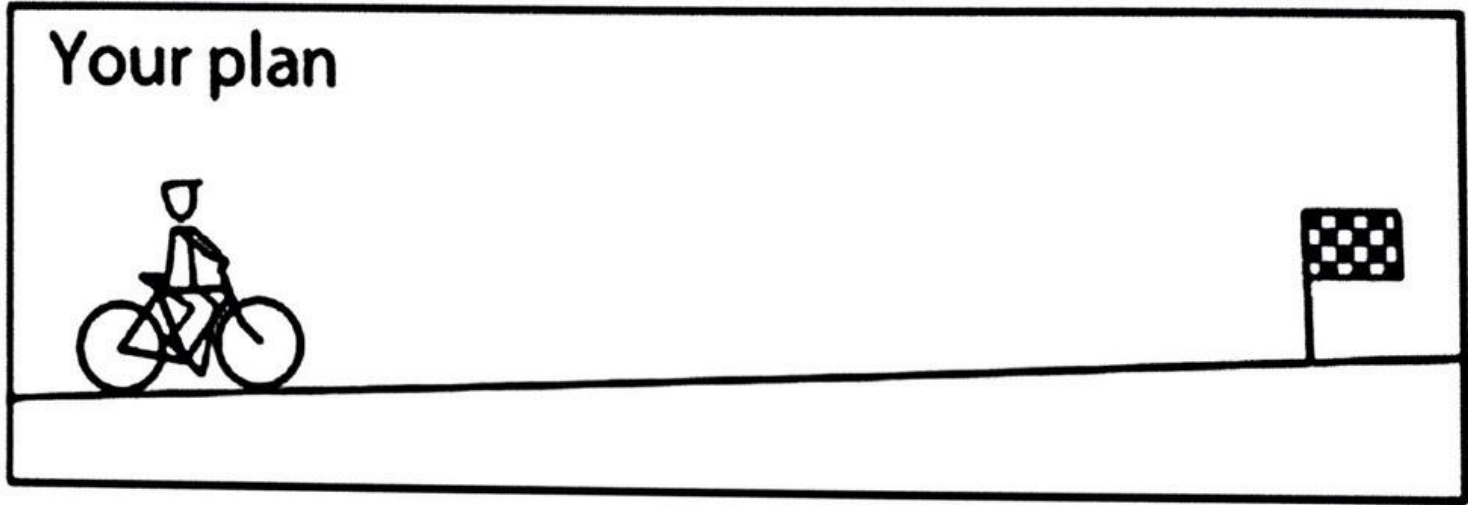
- ◆ Cognitive-behavioral techniques with or without motivational interventions
- ◆ Relative to no treatment, greater posttreatment reductions in:
  - ◆ Gambling disorder symptoms
  - ◆ Gambling frequency (e.g., number of times gambled)
  - ◆ Gambling intensity (e.g., amount of money wagered)
  - ◆ Gambling duration (e.g., number of hours in casino)

\*\*Currently limited evidence for enduring effects of treatment

Cowlshaw et al. (2012) *Cochrane Database of Systematic Reviews*

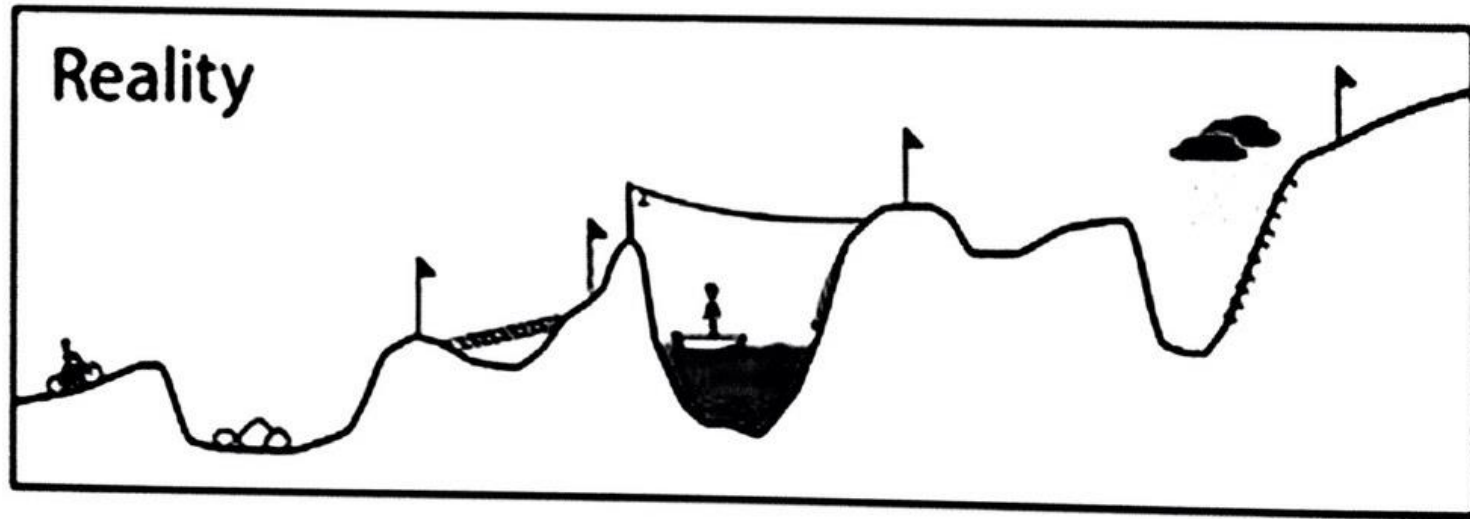
Petry et al. (2017) *Psychology of Addictive Behaviors*

Pfund et al. (2022) under review and invited for resubmission at *Addiction*



Session 1

Termination



Session 1

Termination

# The Treatment Gap

- ◆ About 39% of individuals drop out of face-to-face treatment



# What is “Dropout?”

- ◆ When an individual initiates treatment and then leaves it before completion
- ◆ Dropout vs not seeking treatment

# Dropout at Initial Contact

- ◆ In our clinic, 50% of clients who schedule an initial appointment for face-to-face outpatient treatment do not show
- ◆ Standard procedure was to provide reminder phone call



# Sending Motivational Letters

We are glad you called. Calling for an appointment can be hard to do. It means you are thinking about how gambling has caused you problems. It might help to think about how your recent gambling may conflict with the way you want to live your life and you may be unsure about what to do. We want work with you to explore the costs and benefits of what you have been doing. Doing this often helps people to decide if they want to make changes. While you need to decide about your gambling, we look forward to learning more about you. We are here to help and support you in any changes you might want to make.



# Elements in Motivational Letter

## Motivational Interviewing “Spirit”

- ◆ Autonomy
- ◆ Collaboration
- ◆ Compassion
- ◆ Evocation

## Treatment Expectations

- ◆ Treatment rationale
- ◆ Treatment length
- ◆ Provider’s competence

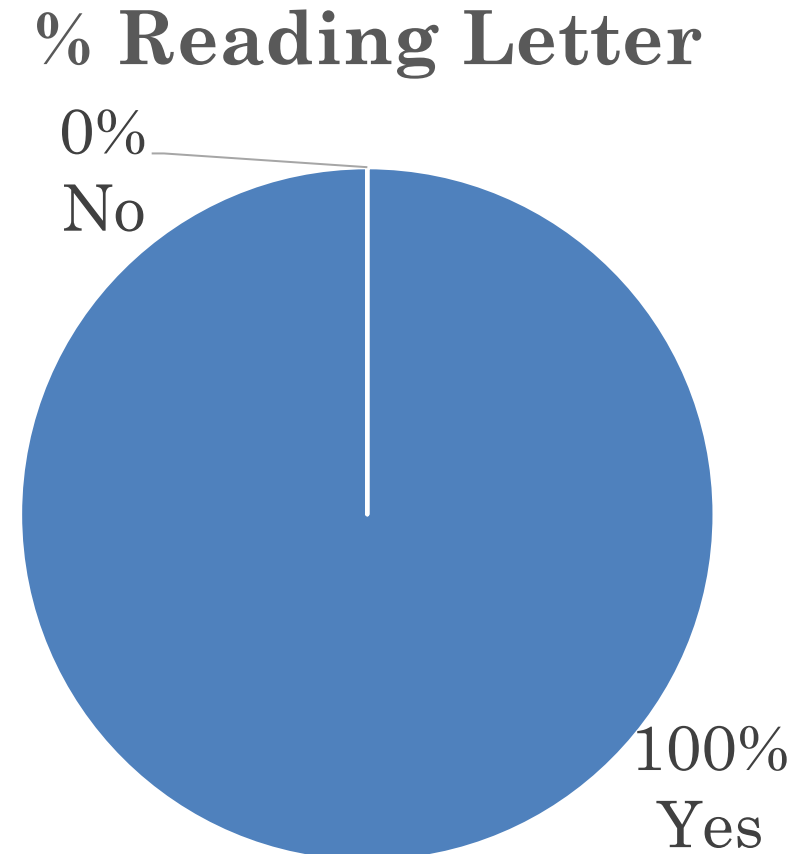
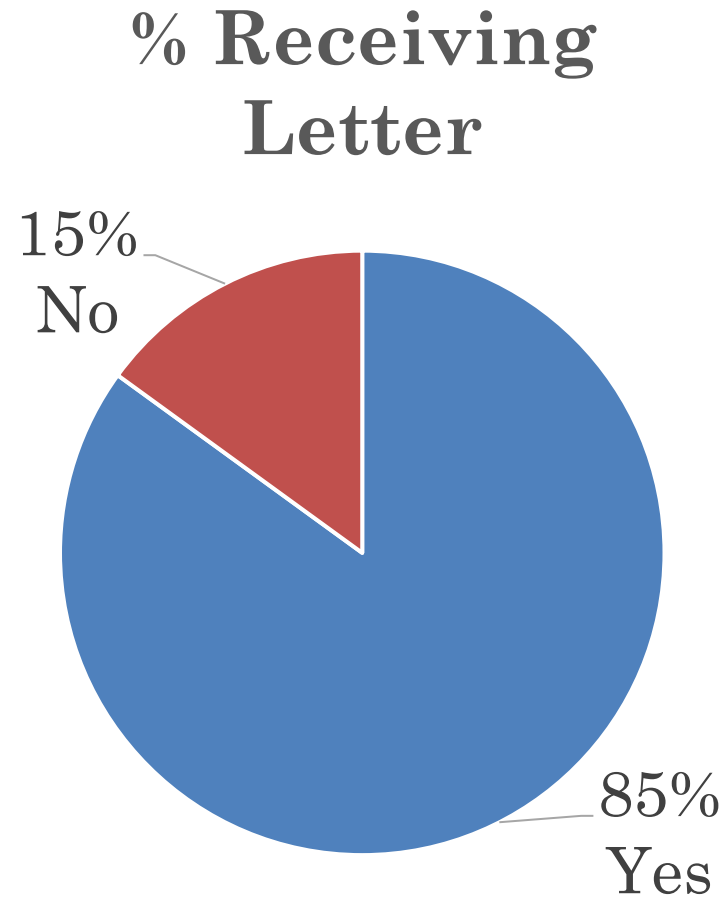


# Method: Participants

- ◆  $n = 69$  patients at outpatient, gambling specialty clinic
- ◆  $M_{\text{age}} = 45.6$  ( $SD = 13.2$ )
- ◆ 55% identified as male
- ◆ 56% identified as African American and 44% as Caucasian
- ◆  $M = 7.1$  ( $SD = 1.6$ ) DSM-5 gambling disorder criteria

Random assignment to standard care only or motivational letter + standard care

# What % of Clients Receive and Read Motivational Letters?



# Does the Letter Increase Clients' Attendance to the Initial Session?

	Motivational Letter + Standard Care (n = 34)	Standard Care (n = 35)
Attended Initial Session	77%	51%
Did Not Attend Initial Session	23%	49%

$$\chi^2 (1, N = 69) = 4.68, p = .03, \Phi = .26$$

# Increases in Attendance During Treatment?

- ◆ # of sessions attended = 2.02 ( $SD = 2.40$ )
  - ◆ No statistically significant difference between study conditions

# Where Does Behavior Change Fit?

- ◆ Common definitions:
  - ◆ Attending a portion of a treatment
  - ◆ Attending all sessions of a treatment
  - ◆ Therapist judgment

**\*\*universally applied to all people in treatment\*\***

# Implicit Assumptions

- ◆ People do not want to change
- ◆ Treatment is always necessary
- ◆ We know what is best for people

# Problems with Assumptions

- ◆ People do want to change
- ◆ Treatment is not always necessary
- ◆ People often do know what is best for them

# Advancing A New Definition

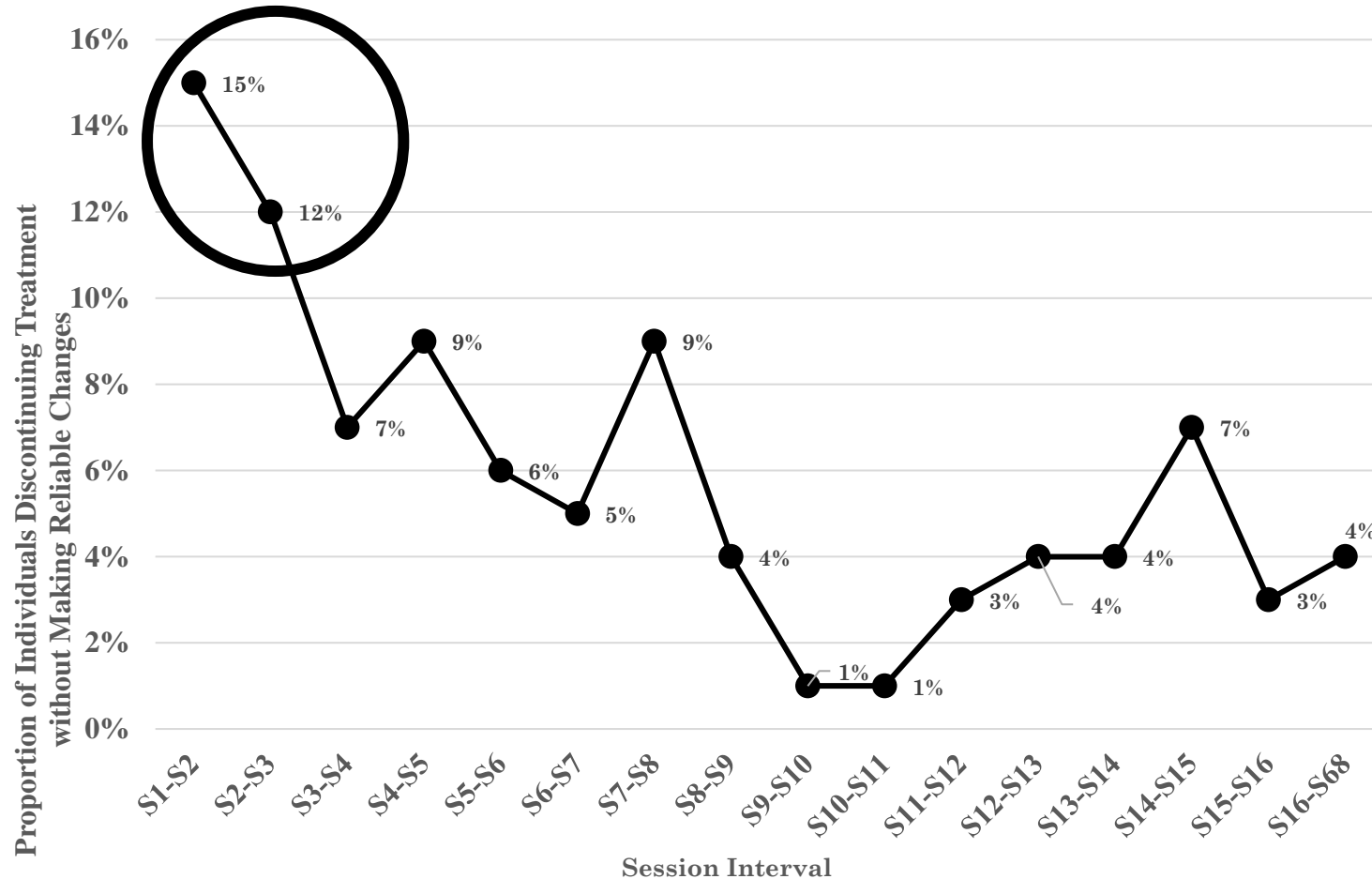
- ◆ Examines dropout relative to session-to-session changes
- ◆ Creates two groups of individuals:
  - ◆ Those who do not make reliable changes during treatment or even worsen (dropout)
  - ◆ Those who make statistically reliable changes that are maintained throughout treatment (treatment completion)



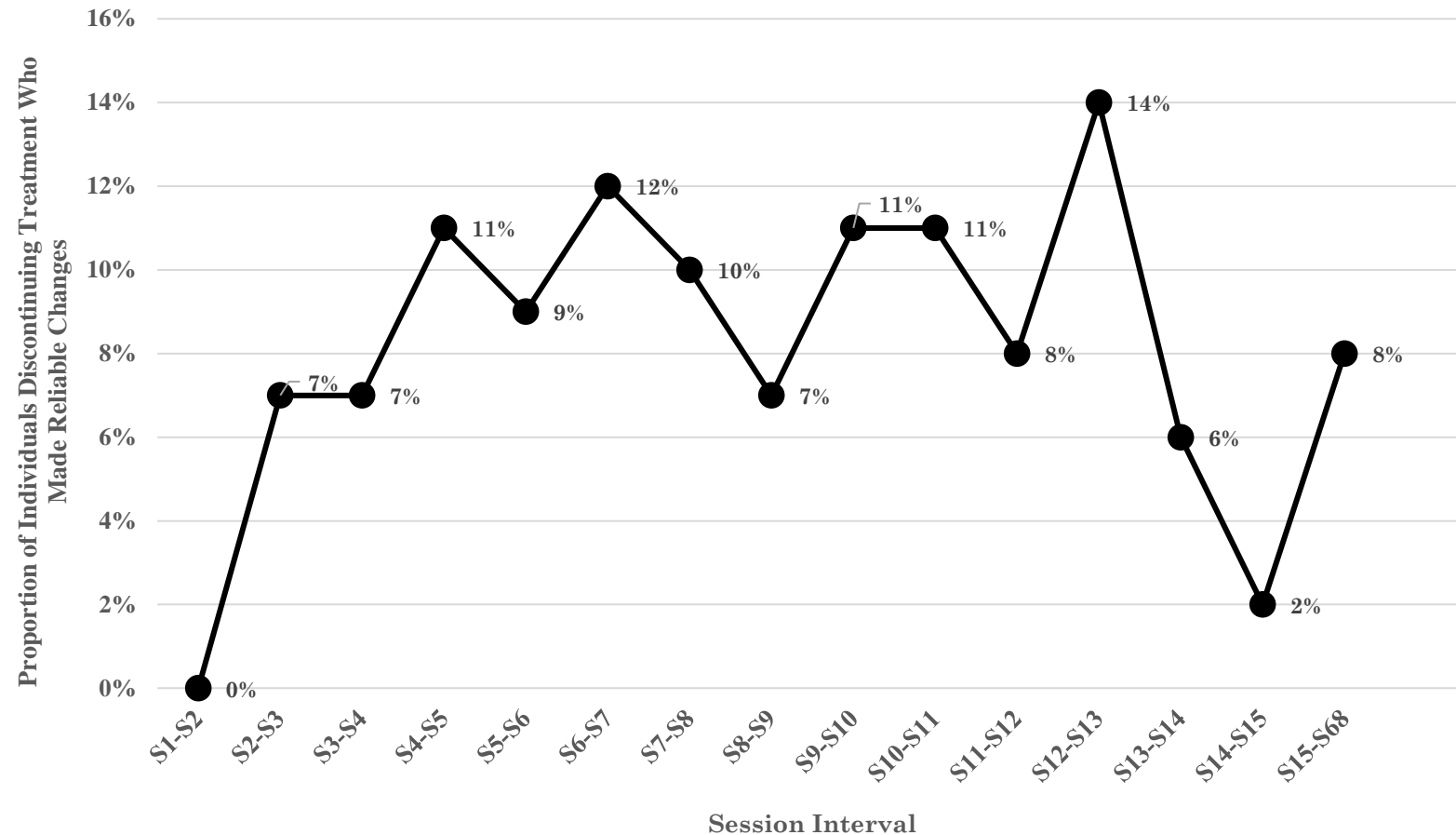
# Method: Participants

- ◆  $n = 334$  patients at outpatient private practice (time unlimited treatment)
- ◆  $M_{\text{age}} = 46.2$  ( $SD = 11.0$ )
- ◆ 64% identified as female
- ◆ 84% identified as Caucasian
- ◆  $M = 7.5$  ( $SD = 1.6$ ) DSM-5 gambling disorder criteria

# Dropout (No changes made)



# Completion (Reliable changes made)



# Overlap with Other Definitions

- ◆ 70% of sample classified correctly
- ◆ 30% of the sample classified incorrectly (i.e., classified as dropout in one definition and completer in the other)

	Dropout Classified as Not Making Reliable Changes	
Dropout Classified as Attending <3 Sessions	Yes	No
Yes	30%	
No		40%

# Overlap with Other Definitions (continued)

- ◆ 11% of individuals who made reliable changes were classified as “dropouts” according to other definition

	Dropout Classified as Not Making Reliable Changes	
Dropout Classified as Attending <3 Sessions	Yes	No
Yes	30%	<b>11%</b>
No		40%

# Overlap with Other Definitions (continued)

- ◆ 19% of individuals who did not make reliable changes were classified as “treatment completers” according to the other definition

	Dropout Classified as Not Making Reliable Changes	
Dropout Classified as Attending <3 Sessions	Yes	No
Yes	30%	11%
No	<b>19%</b>	40%

# In Other Words...

**\*\*Dropout based solely on session attendance may discredit the meaningful progress that some individuals make during treatment\*\***

**\*\*Dropout based solely on session attendance may prevent us from identifying individuals who need more help at the end of treatment \*\***

# Monitoring Progress

- ◆ Assess individuals' progress at the beginning of each session
- ◆ Reflect on individuals' reactions to treatment progress



# Monitoring Progress (continued)

- ◆ Gambling behavior (e.g., money wagered)
- ◆ Symptoms (e.g., Gambling Symptom Assessment Scale)
- ◆ Self-efficacy (e.g., Gamblers' Self-Efficacy Questionnaire)
- ◆ Treatment goals (e.g., abstinence, sticking to limits)

# What are Some Implications?

- ◆ Varying definitions might prevent researchers from identifying risk factors of dropout
- ◆ Research has not identified a consistent set of risk factors
  - ◆ Client variables (e.g., demographics, symptom severity)
  - ◆ Treatment variables (e.g., length of treatment, dissatisfaction)

# Method: Studies, Participants, & Treatments

- ◆  $k = 24$  studies (31 dropout rates)
- ◆  $n = 2,791$
- ◆  $M_{\text{age}} = 40.2$  ( $SD = 8.3$ )
- ◆ 70% identified as male and 30% female
- ◆ 76% identified as White
- ◆ Treatments were CBT, TSF, and motivational interventions

# Dropout Rates by Definitions

	Dropout Rate	95% Confidence Interval	Q-value	p-value
<b>Dropout definition (# of studies)</b>			51.08	< .001
Attending some sessions (9)	33.2%	25.5%, 41.9%		
Attending all sessions (10)	64.1%	57.0%, 70.6%		
Therapist judgment (12)	27.2%	20.7%, 35.0%		

# Preferred Terms

Say This	Not That
Discontinuation/attendance	Dropout

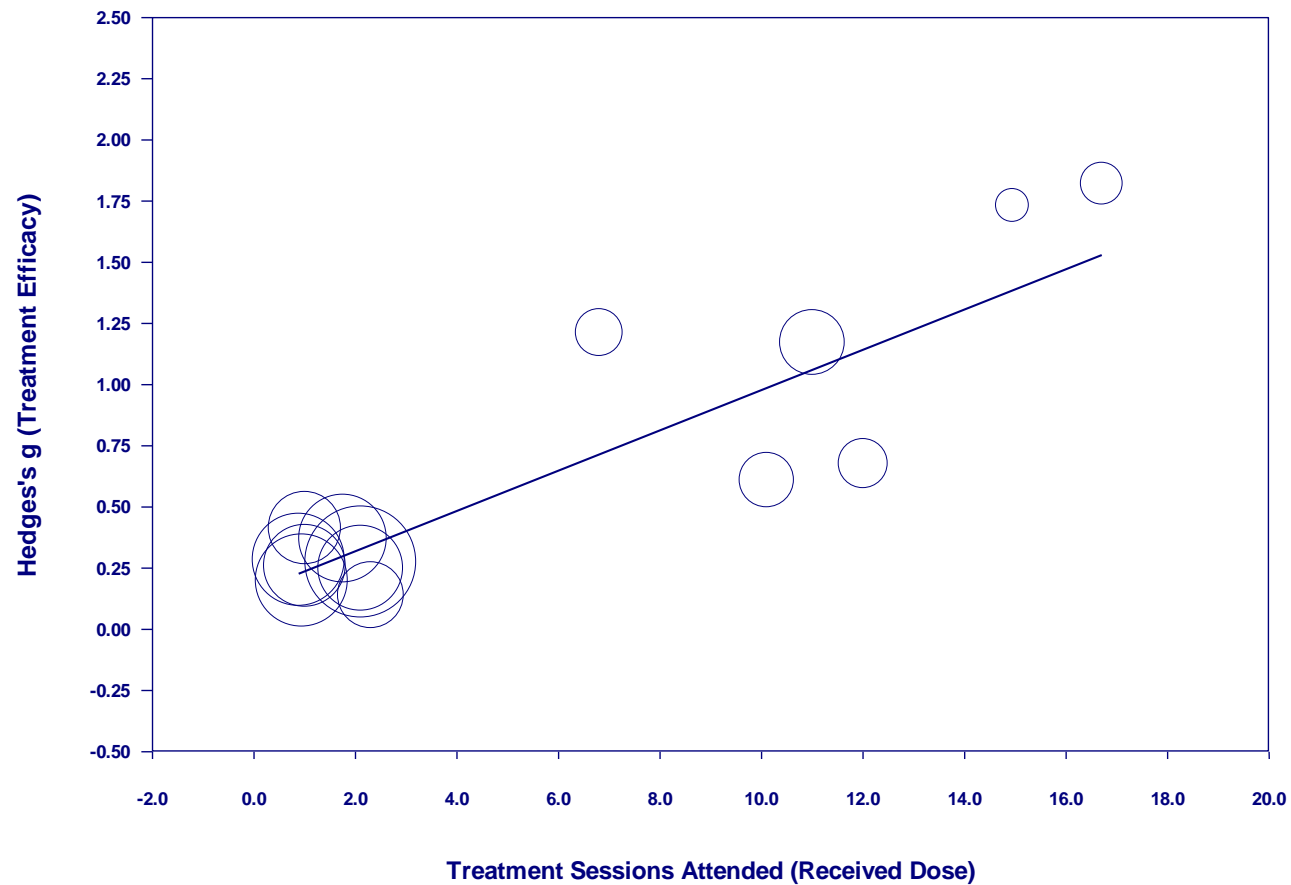
# Is Attendance Associated with Outcomes?

- ◆ No empirical studies linking discontinuation to outcomes
- ◆ Varying definitions complicate this association

# Method: Studies, Participants, & Treatments

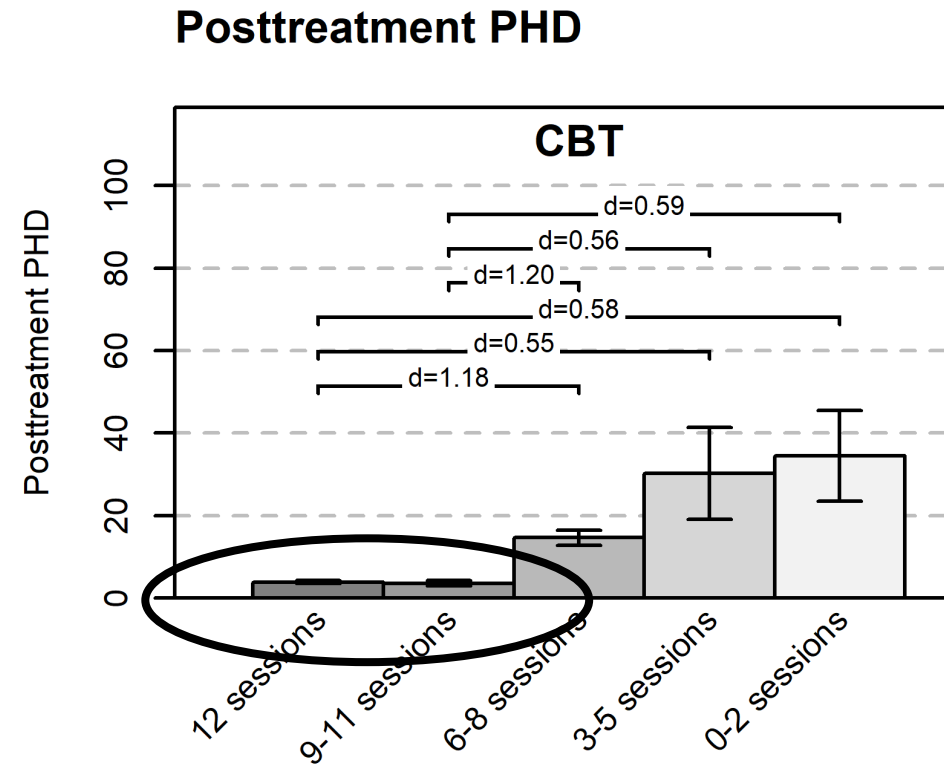
- ◆  $k = 14$  studies (19 treatment vs. non-active treatment controls)
- ◆  $n = 1,203$
- ◆  $M_{\text{age}} = 39.8$  ( $SD = 9.3$ )
- ◆ 60% identified as male
- ◆ 73% identified as White
- ◆ Treatments were CBT, TSF, motivational, and feedback interventions

# Association between Attendance and Outcomes

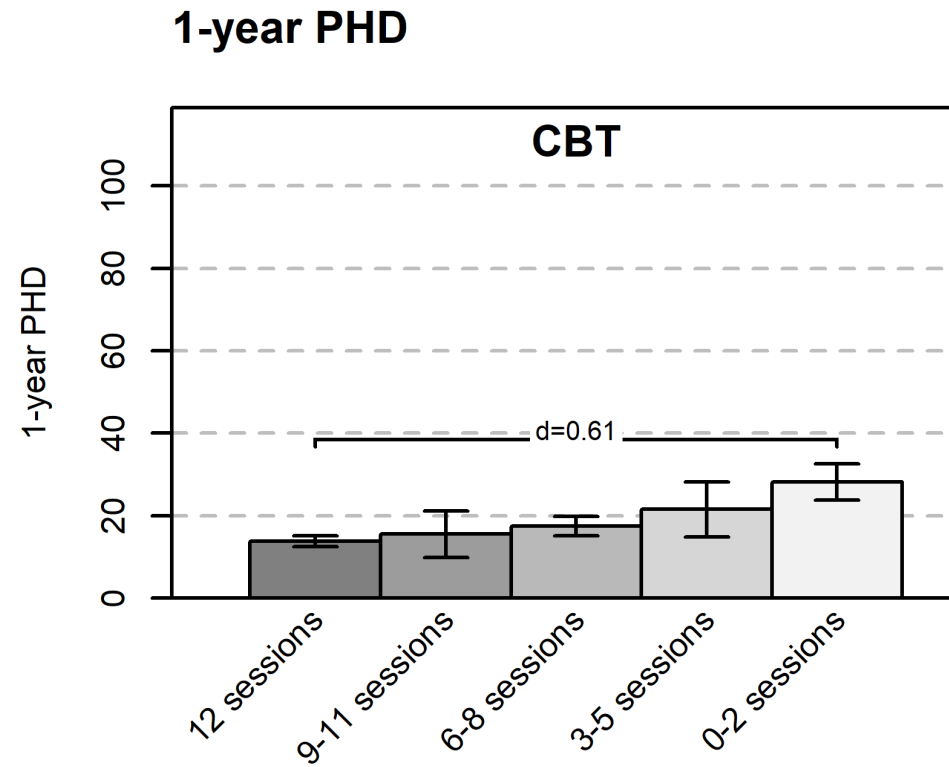




# How Many Sessions are Needed?



# How Many Sessions are Needed?



# What's Next?

- ◆ Can we increase attendance and subsequently enhance outcomes?
- ◆ Motivational incentives for attendance
  - ◆ Incentives are prizes (e.g., movie tickets, television) or vouchers (e.g., gift cards)
  - ◆ Incentives provided at various **frequencies and magnitudes**

# Take Home Points

1. Use the terms “discontinuation” and “attendance” rather than “dropout”
2. Most people will discontinue treatment after scheduling the initial session or after attending the first session
3. Monitor behaviors throughout treatment to determine when progress is made

Thank you!

Questions?

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