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## Understanding Gambling: Mechanisms and Predictors: Alberta Gambling Research Institute's 15th Annual Conference

Bedford, Kate; Cunningham, John; Hing, Nerilee; Kayser, Andrew; Kim, Hyoun S. (Andrew); Leonard, Carrie A.; Lewis, Marc; Lister, Jamey J.; McGrath, Daniel; Nower, Lia...

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<http://hdl.handle.net/1880/51141>

Presentation

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Evaluation of an  
**INTERNET-BASED INTERVENTION**  
for **DISORDERED GAMBLERS**

Jennifer L. Swan, M.Sc.

Ph.D. Candidate, University of Calgary

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Institute Conference



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# Disclosure of Potential Conflict of Interest

- Current study funded by the Alberta Gambling Research Institute (AGRI)
- Program development support provided by Evolution Health

# Overview

- Treatment seeking among disordered gamblers
- Types of brief interventions
- Closer look at an Internet-based intervention:  
Preliminary data from Internet-MET study
- Implications and future directions



# Treatment Seeking

- Very few disordered gamblers seek treatment
- May indicate barriers to accessing existing services
  - (e.g., embarrassment/pride; not a problem; wanting to handle it on their own; inability to share problems; stigma)
  - Actual availability of treatment not endorsed highly as a barrier
- Not all disordered gamblers need formal treatment to recover
  - Natural recovery (self-recovery/self-change)

# Treatment Seeking

- Self-recovery more likely among those with less severe gambling problems
- Stepped-care models for disordered gambling
  - Interventions spanning a continuum of intensity
  - Move from the least intrusive option (e.g., self-recovery) to brief treatments, to higher intensity treatment options
  - Requires empirically supported interventions that span this continuum of intensity

# Brief Interventions

- Brief interventions are not necessarily seen as treatment by those who access them
- Range of brief/minimal interventions that have been examined for disordered gamblers
  - 10mins brief advice (e.g., Petry et al., 2008)
  - Self-help materials (e.g., CBT workbooks, skills training)
  - Motivational Interviewing/Enhancement therapy (e.g., Diskin & Hodgins, 2009)

# Self-Help Materials

- An option to aid in the natural recovery process
- Empirical evidence limited in their effectiveness as a standalone treatment
- Well-accepted, used, and retained by participants
- Increased efficacy as an adjunct to other treatment

- *Becoming a Winner: Defeating Problem Gambling* (Hodgins & Makarchuk, 2002)
- *Your First Step to Change: Gambling* (Labrie et al., 2012)
- *JEu me questionnaire* (JMG; Ladouceur et al., 2015)
- *Check Your Gambling* (Cunningham et al., 2009)



# Brief Motivational Interventions

## Motivational Interviewing (MI)

- Client-centered therapeutic style
  - Help explore and resolve ambivalence and strengthen commitment to change
  - *Motivational Enhancement Therapy (MET)*: incorporating personalized normative-based feedback in addition to MI principles
- 
- Short duration, viable as a standalone approach or can be combined with other evidence-based treatments
    - E.g., with CBT to increase treatment adherence

# Brief Motivational Interventions

- Empirical support for brief motivational interventions as promising for short-term benefit (e.g., Yakovenko et al., 2015)
- Some inconsistent findings around the additional benefit of adding MI principles into the intervention (e.g., Petry et al., 2008; 2009)
- Long-term benefits of motivational interventions less clear
- Numerous benefits including short duration, ease of dissemination/implementation, and viable as standalone or combined with other treatment

# Internet-based Tools

- Convenient, possible cost-effective way to provide access to treatment
- Self-help materials online
  - Check Your Gambling (Cunningham et al., 2011)
  - Self-Help Tools (Hodgins et al., 2013)
- Computerized MI
  - Post-partum drug use (Ondersma et al., 2014)
  - Treatment adherence (Naar-King et al., 2013)



# Internet-MET: Present Study

- **Objective:** to explore the efficacy of an Internet-based motivational enhancement intervention for disordered gamblers
  - Compared motivational enhancement intervention (MEI) to assessment and feedback (CI)
  - To explore to effect of the MI elements in addition to the standard screening tools, when provided in an online format

# Method

- **Screening (via telephone)**
  - Must be  $\geq 5$  on Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI)
  - Must have gambled at least once in last month
  - Must not have received treatment for gambling in the past 3 months
  - Must have access to Internet
- **Five telephone assessments over 12 months**
  - Initial + 1-, 3-, 6-, and 12-month follow-ups
  - Randomly assigned to complete either motivational intervention (MEI) or control (CI)

# Control Intervention (CI)

- Brief assessment + personalized feedback
  - Types, frequency, money spent gambling (past year)
  - Gambling Cognitions Q'aire (GCQ), PGSI
  - Feedback report including normative comparison
  - Suggestions to reduce risk of gambling problems

**CHECK YOUR GAMBLING**  
beta version 3.0

LANGUAGE OPTIONS  
English (US)

SAMPLE RESULTS | ABOUT THE PROGRAM

### Check Your Gambling (CYG)

This five page questionnaire is completely anonymous and has been designed to help you, your loved ones or your health care professional answer some questions you might have about gambling.

When we say gambling, we are talking about lotteries, bingo, horse racing, card playing, casino betting and all other games that involve betting money.

When you're finished you can print your Final Report or email your results directly to yourself or your health care professional. Start the CYG by filling in the following anonymous information:

How do you compare?

You are taking this test:

- For yourself
- For someone you know
- You are just checking out the test to see what the results look like

Begin the Test

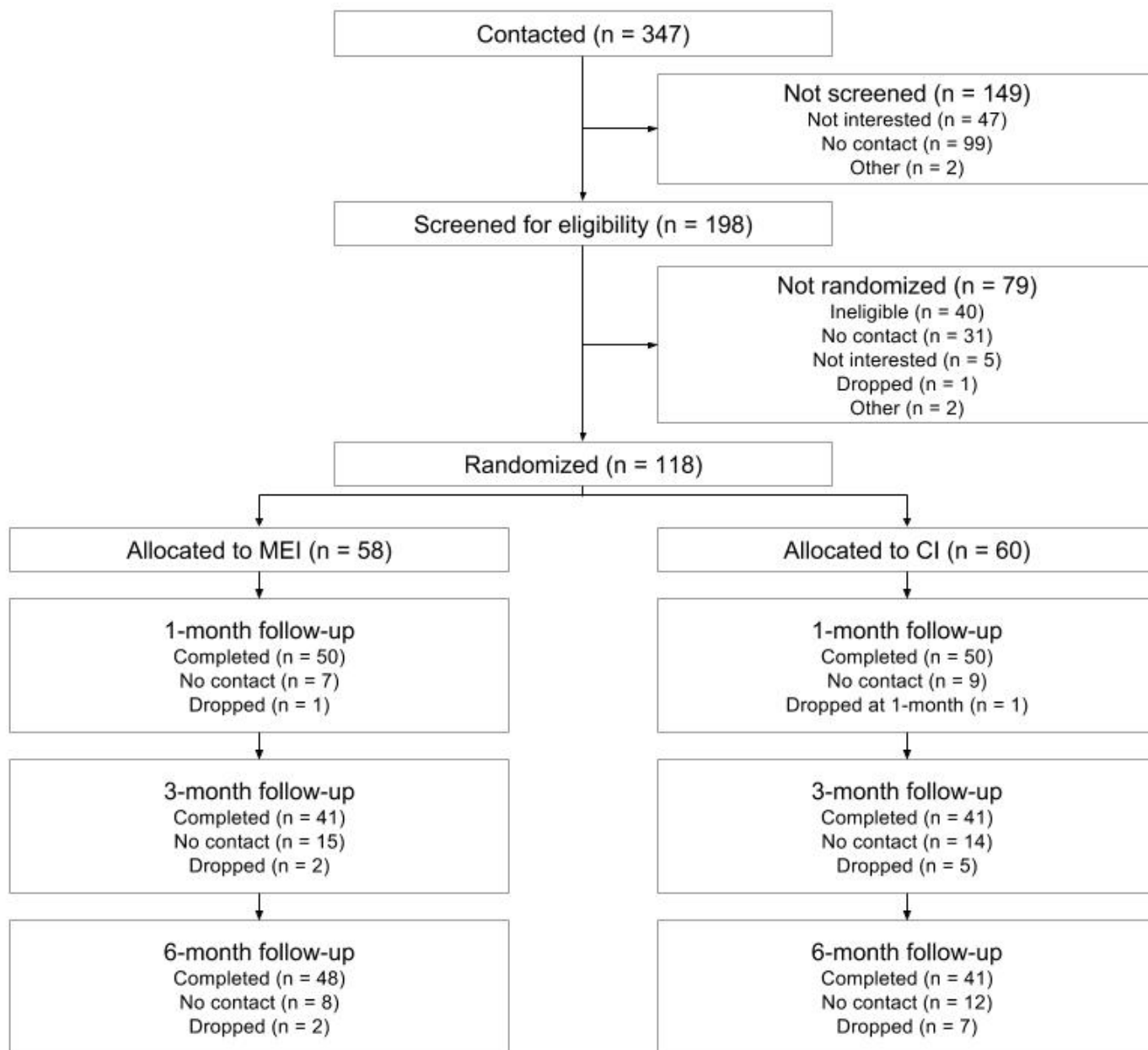
**Burijji**  
Changes  
the Compliance Equation

Improve health outcomes  
by bridging traditional  
healthcare and Web 3.0

# Motivational Enhancement Intervention (MEI)

- Developed using content from previous motivational interviews with disordered gamblers (Hodgins et al., 2009)
- Combination of open and closed questions in an interactive, text-based format
  - Program responses are dependant on participants' input
  - Reflects and summarizes participants responses





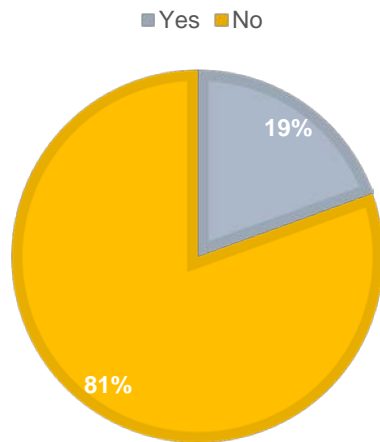


# Participant Characteristics

Variable	CI ( <i>n</i> = 60)	MEI ( <i>n</i> = 58)
Age, <i>M</i> ( <i>SD</i> )	45.13 (13.10)	46.24 (14.90)
Male, no. (%)	35 (59)	34 (59)
Ethnicity, no. (%)		
Caucasian	42 (70)	39 (68)
Aboriginal	6 (10)	8 (14)
Other	12 (20)	11 (19)
PGSI		
Total Score, <i>M</i> ( <i>SD</i> )	14.60 (5.76)	15.67 (4.89)
Moderate risk, no. (%)	6 (10)	2 (3)
Problem gamblers, no (%)	54 (90)	57 (97)

- No significant differences between treatment groups on measured demographic variables

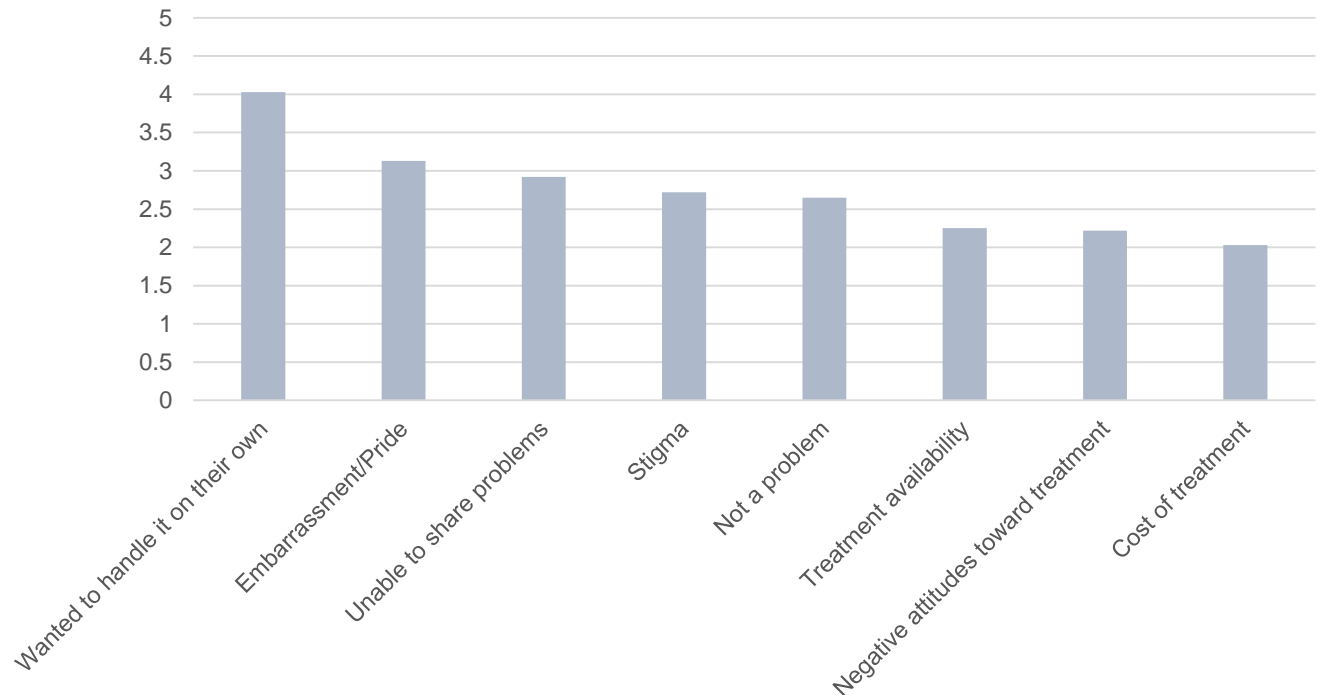
## EVER SOUGHT TREATMENT



\*\*24% had attended at least one GA meeting in their lifetime

- Majority had not sought treatment
- Barriers rated on importance from 1 (not at all) to 5 (very much)
  - Most important reason was wanting to handle the problem on their own ( $M = 4.03$ ,  $SD = 1.16$ ) followed by embarrassment or pride ( $M = 3.13$ ,  $SD = 1.47$ )

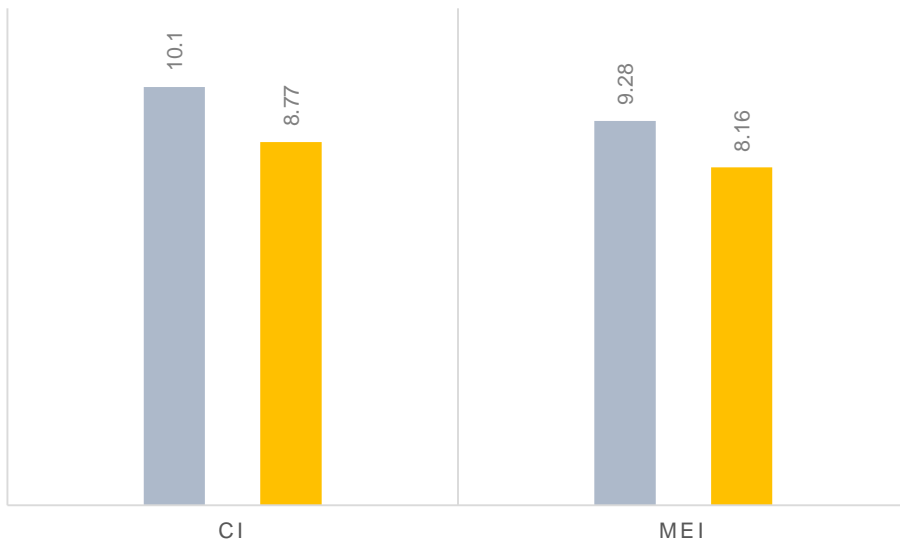
### Barriers to Treatment Seeking



# Preliminary Results: Days Gambled

## DAYS GAMBLED

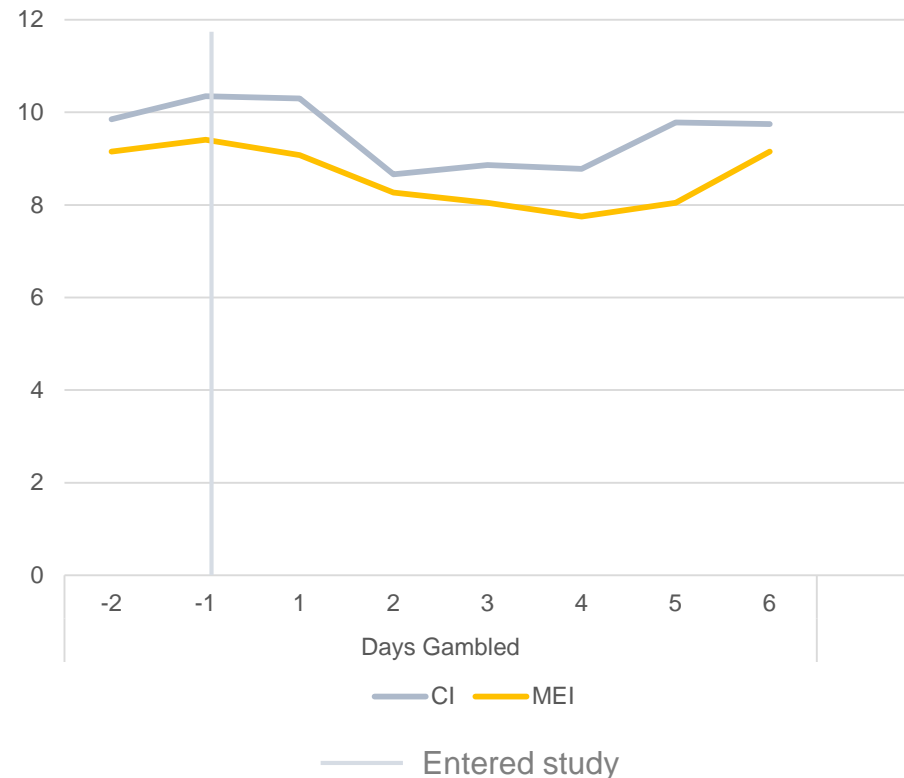
■ Baseline ■ 3 months



**$d = .03$  (based on change scores)**

*Time effect ns ( $p = .08$ ), group  $\times$  time effect ns.*

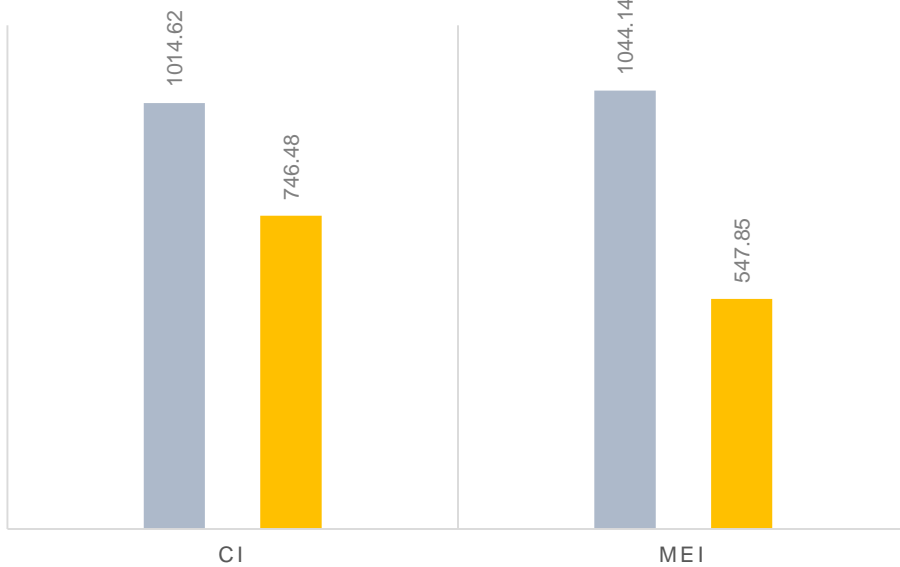
## DAYS GAMBLED



# Preliminary Results: Dollars Lost

## DOLLARS LOST

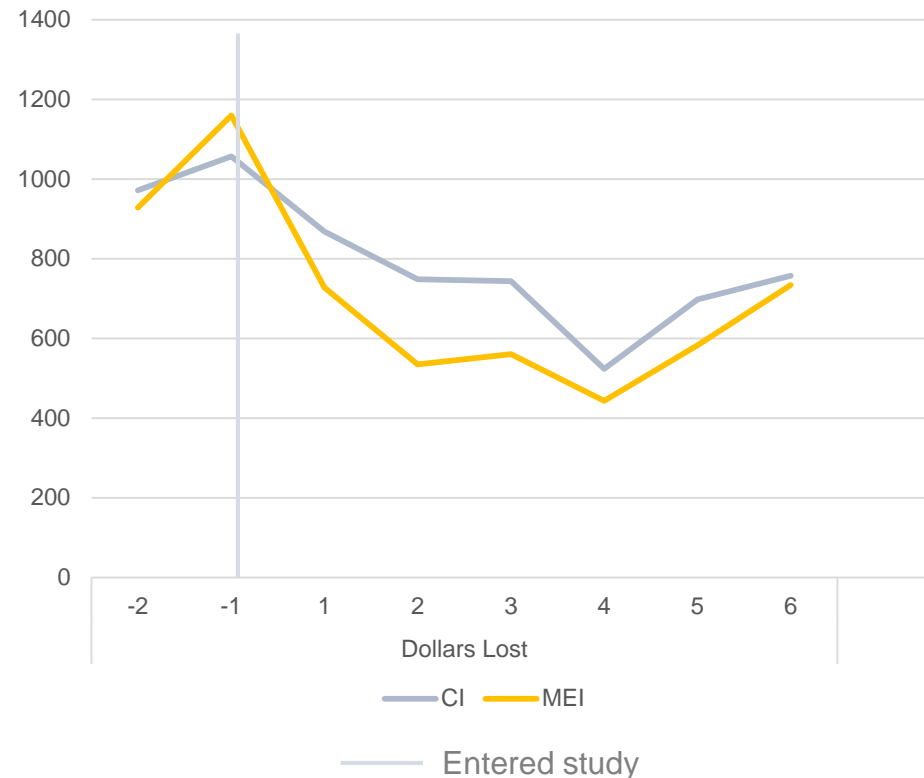
■ Baseline ■ 3 months



**$d = .17$  (based on change scores)**

*Time effect ( $p < .001$ ), group x time effect ns.*

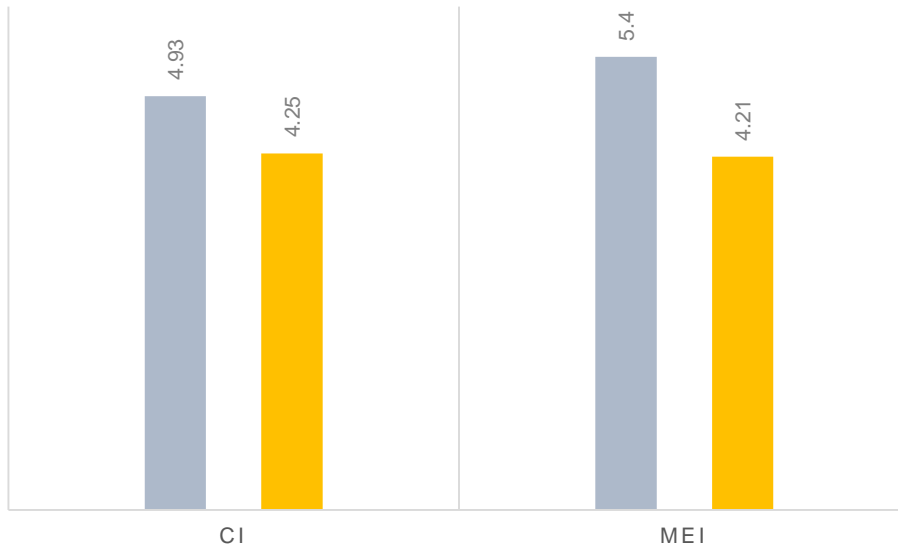
## DOLLARS LOST



# Preliminary Results

## PG SEVERITY

■ Baseline ■ 3 months



**$d = .19$  (based on change scores)**

*Time effect ( $p < .001$ ), group x time effect ns.*

*Assessed using the NORC DSM-IV Screen for Gambling Problems (NODS; Gerstein et al., 1999)*

## READINESS TO CHANGE

■ Baseline ■ 3 months



**$d = .20$  (based on change scores)**

*Time effect ( $p = .03$ ), group x time effect ns.*

*Assessed using the Gambling Readiness to Change Scale (GRTC; Neighbors et al., 2002), weighted composite score*

# Program Satisfaction

- No significant differences between the groups on overall ratings of the program, overall rated favourably

	CI ( <i>n</i> = 36)	MEI ( <i>n</i> = 48)
Easy to navigate	4.47 (.74)	4.38 (.98)
Appearance	4.39 (.65)	4.25 (.91)
Answering questions	4.03 (1.0)	4.17 (.69)
Easy to use	4.50 (.61)	4.35 (.76)
Recommend	3.80 (1.02)	3.85 (1.30)
Revisit	3.78 (1.01)	3.96 (1.24)
Access over other treatment	3.00 (1.10)	3.35 (1.12)

Ratings based on a 1-5 Likert scale, where 1 = *not at all/strongly disagree* and 5 = *very much/strongly agree*

# Considerations & Implications

- Online delivery represents a viable platform and a possible way to reach more disordered gamblers
- Limited flexibility in the program's ability to tailor the experience for the participant
  - E.g., all participants complete the decisional balance exercise, regardless of their motivation to change
- Computerized MI is still a relatively new area of study
  - Large scale trials for other programs underway
  - What about the relational hypothesis of MI?

# Considerations & Implications

- Lack of waiting-list control group in this study (and others) makes it difficult to interpret the overall improvement seen across groups
  - Equivalent effect of interventions? Natural recovery?
- Overall, brief interventions are a promising way to increase the reach of treatment
- Advancements in technology increase convenience and accessibility, and address commonly cited barriers to seeking treatment (such as shame or stigma)
  - Not without limitations (e.g., ethical practice)



# Acknowledgements

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