

# Contingency Management for the Treatment of Substance Use Disorders

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# Historically How Our Society Treats Substance Users



# Is Offering Rewards Really Novel?

Every day ***positive reinforcement*** increases the probability of a behavior.

## Consumer Behavior

- 5% Cashback, Starbucks Rewards



## Employees

- Salaries, commissions, awards, social praise



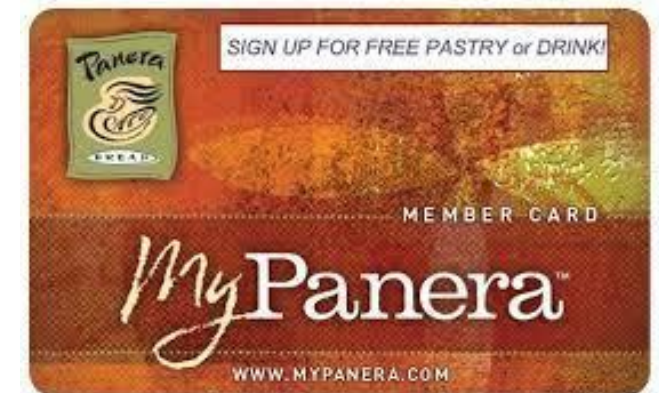
## Children

- Star charts, special foods, allowance



## Pets

- Treats



# Fundamental Principles of CM

## Three central tenets of effective Contingency Management interventions:

1. **Frequently monitor** a specific target behavior.
2. Provide tangible positive reinforcement **each time** the target behavior is demonstrated.
3. **Withhold** positive reinforcement if the target behavior does not occur.  
Can add in a slight punisher

# Target Behaviors: Reinforcing Abstinence

**Cocaine** - (Higgins et al., 1994, 2000, 2003, 2007; Silverman et al., 1996, 1999)

**Methamphetamines** - (Peirce et al., 2006; Petry et al., 2005; Roll et al., 2006; 2007)

**Opioids** - (Bickel et al., 1997; Jarvis et al., 2019; Marsden et al., 2019; Preston et al., 1998, 2000)

**Benzodiazepines** - (Stitzer et al., 1992)

**Marijuana** - (Budney et al., 2000, 2006)

**Nicotine** - (Alessi et al., 2008; Roll et al., 1996)

**Alcohol** - (Brigham et al., 1981; Petry et al., 2000)

# Target Behaviors: Other Health Behaviors

## *Treatment Attendance*

(Ledgerwood et al., 2008; Petry et al. 2001, 2005; Walker et al., 2010)

## *Engagement in Therapeutic Activities*

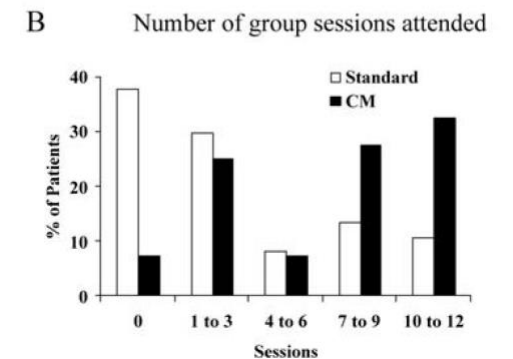
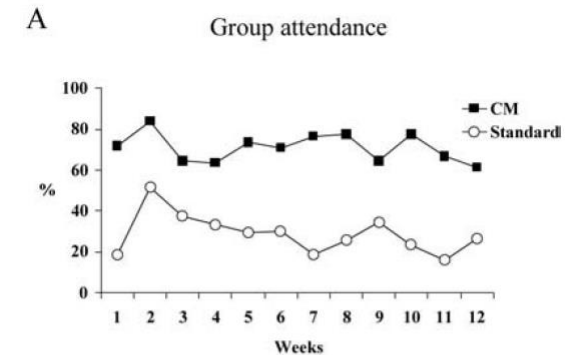
(Iguchi et al., 1997; Petry et al., 2006; Reback et al., 2010)

## *Medication adherence*

(Haug et al., 2006; Rosen et al., 2007; Petry et al., 2015)

## *Exercise*

(Walker et al., 2010; Weinstock et al., 2011, 2014, 2016, 2020)



# Target Behaviors: Other Health Behaviors

## ***Diabetes – Glucose monitoring***

(Raiff & Dallery, 2010; Petry et al., 2015; Stanger et al., 2013; Wagner et al., 2019)

## ***Obesity – Weight loss***

(Petry, Barry, Pescatello, & White, 2011; Volpp et al., 2008)

## ***Walking (steps)***

(Harkins et al., 2017; Patel et al., 2016; Petry et al., 2013)

## ***Health Screenings & Vaccinations***

(Stone et al., 2002; Lau et al., 2012)

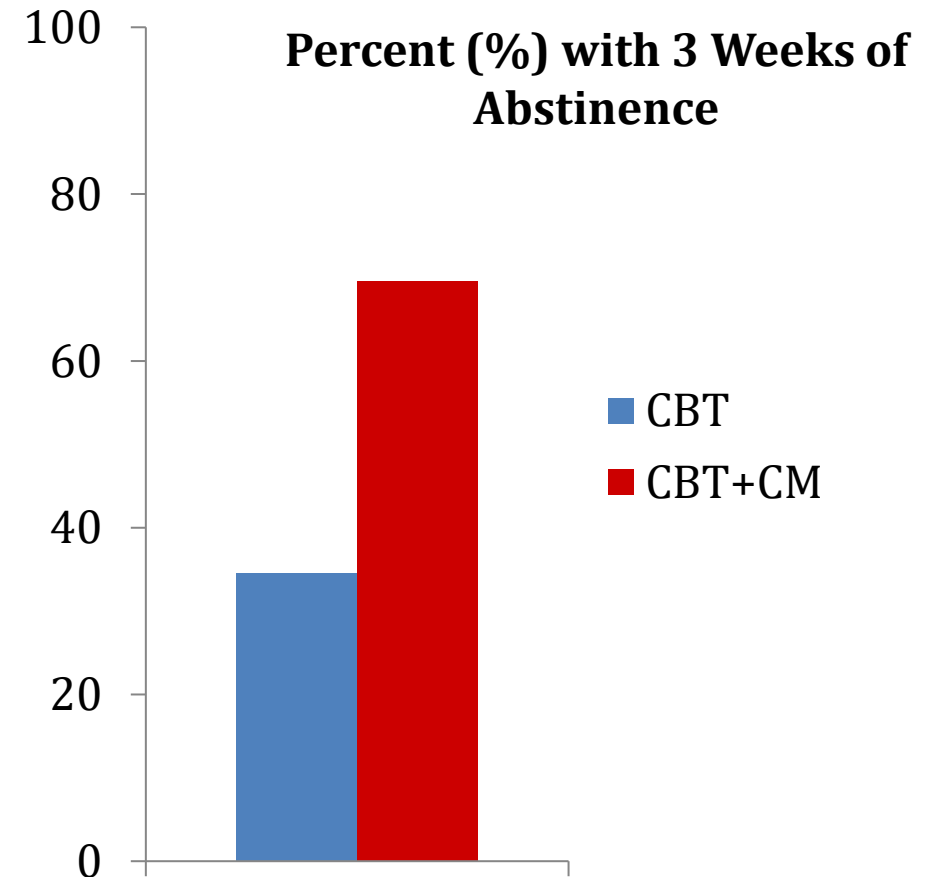
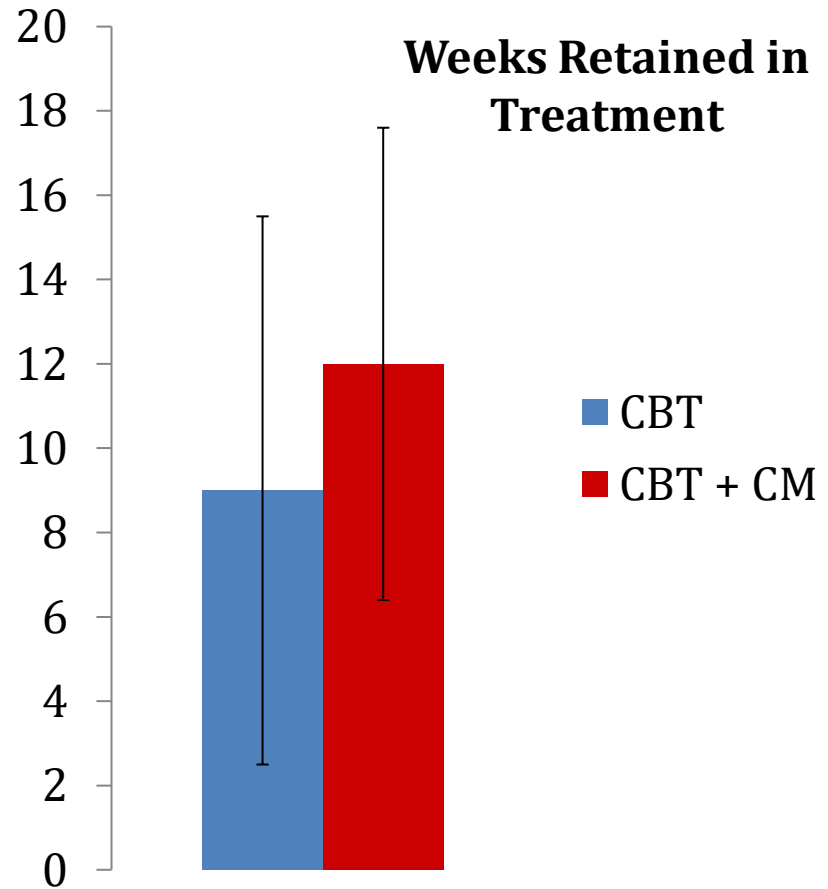


# Example of a Typical CM Session

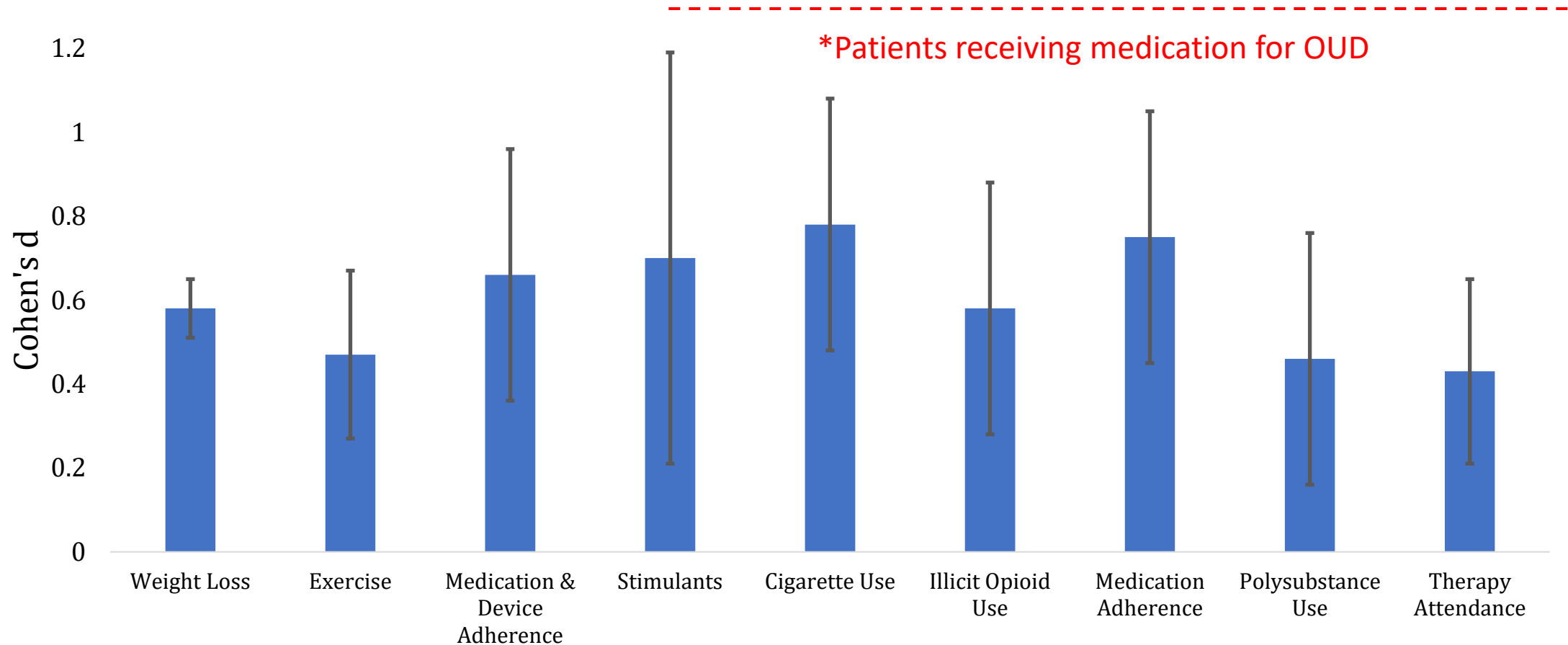




# Clinical Trials of Contingency Management

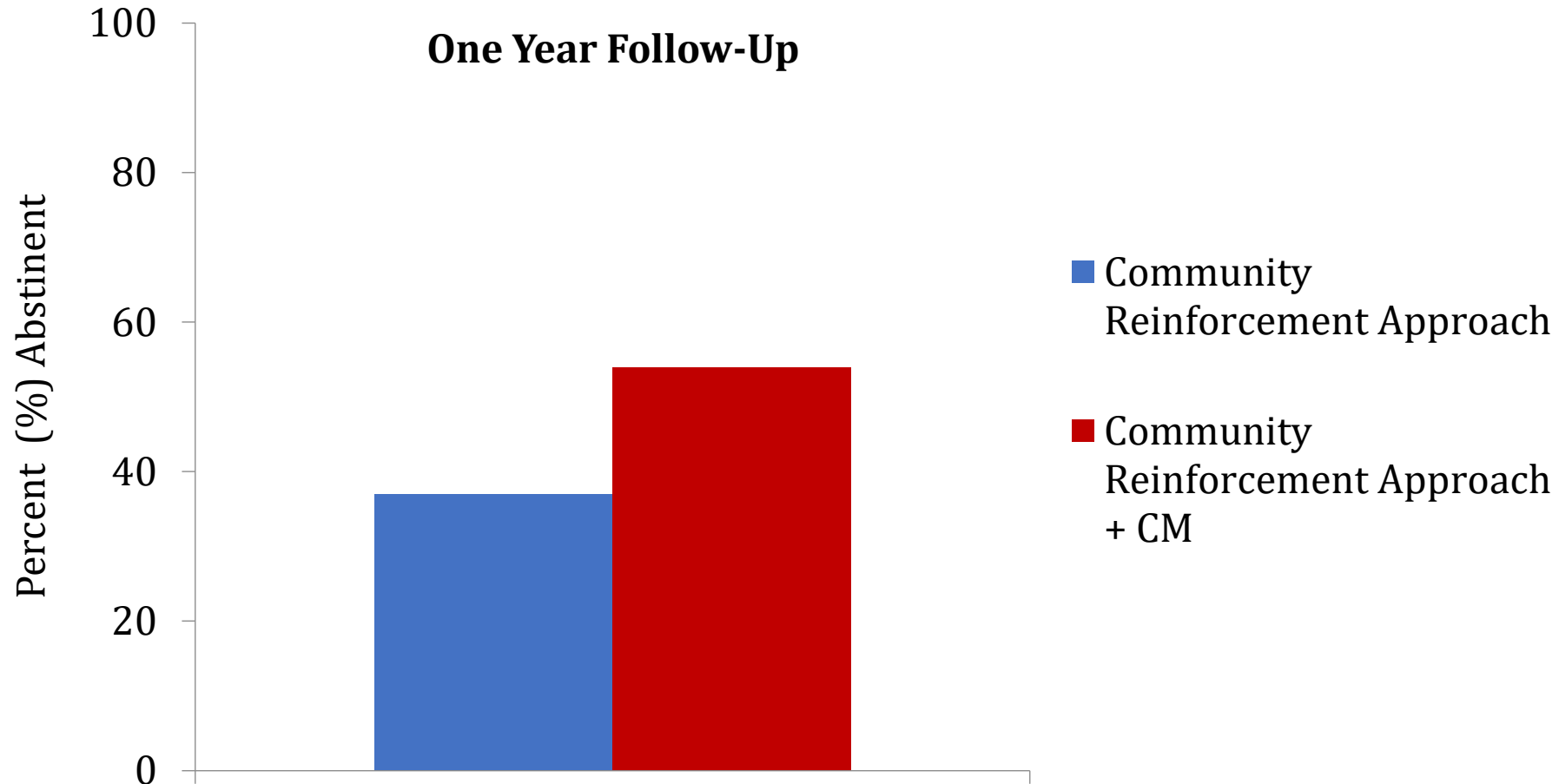


# Contingency Management Meta-Analyses



Bolivar et al., 2021; Ellis et al., 2021

# What Happens After CM Ends?



Higgins, et al. (2000)

# What Populations Respond to CM?

No income effect (Rash et al., 2009, 2013)

No gender effect (Burch et al., 2015; Rash & Petry, 2015)

No race effect (Barry et al., 2009)

Individuals with greater psychiatric severity tend to do better (Weinstock et al., 2007)

Promotes retention of those with multiple prior treatment admissions (Rash et al., 2008)

See Rash, Stitzer, & Weinstock (2017) for a review.

# Thank you!

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