Philadelphia Center of Excellence in Substance Addiction Treatment and Education (CESATE)

# Implementing Contingency Management: Lessons Learned from VA's National Implementation Initiative

## GL/NW ATTC Webinar on Stimulant Use Disorder

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# In Memoriam

This presentation is dedicated with enduring admiration and gratitude to the memory of Nancy M. Petry, Ph.D. (1968-2018)

# What is Contingency Management (CM)?

- CM is an evidence-based SUD treatment that promotes healthy behavior via positive reinforcement, e.g. reinforcing drug abstinence verified by drug testing.
- The likelihood that behaviors like abstinence will increase depends on the size (magnitude), contiguity (timing), and contingent (exclusive) delivery of reinforcement.
- Delayed, smaller, and non-contingent reinforcement is less likely to change behaviors.

# How does CM work?

- Select a specific, objective target behavior, e.g. abstinence.
- Measure the target behavior objectively and frequently.
- Provide immediate, tangible, desirable reinforcement when the target behavior occurs.
- Escalate the size of the reinforcement for consistent behavior.
  - Escalating reinforcement results in continuous abstinence (Roll et al., 1996), a strong and consistent predictor of long-term abstinence (Higgins et al., 2000; Petry et al., 2005,2007).
- Withhold reinforcement when the target behavior does not occur.
- Re-set the size of the reinforcement for the next occurrence of the target behavior.

# The Prize/Fishbowl CM Protocol (Abstinence)

- Patients earn prizes of varying magnitude based on draws from a fishbowl.
- The fishbowl contains 500 prize slips:
  - 250 (50%) ”Good Job!”
  - 40 (8%) “Large” = $20
  - 209 (41.8%) “Small” = $1
  - 1 (0.2%) “Jumbo” = $100.00
- Draws start at 1 for the first negative sample and escalate (to a cap of ~8) with consistent abstinence
- When abstinence is not verified, no draws are earned, and draws reset to 1 for the next negative sample
- Average cost per patient over 12 weeks is ~$200

# The CM Session

- Sample collected and tested.
  - Collections need not be observed; Testing need not include non-targeted drugs; Results must be available same-day and before the patient leaves the clinic
- If applicable, discuss prior absence to determine if it's excused or unexcused.
- Briefly discuss any drug use and craving since prior CM session.
  - Although use of non-targeted drugs does not affect draws, be sure to discuss how it can undermine abstinence efforts on the target drug. Also ask how abstinence efforts with respect to the target drug can be applied to non-targeted drugs.
- Present test results.
- Award draws if the test result is negative for the target drug.
  - Record draw results and amount of reinforcement disbursed.
  - All prize slips are returned to the bowl following draws.
- Ask about desired prizes.
- Relate greater availability of the desired prizes to consistent abstinence and escalating draws.
- Issue Prize Reminder Slip

# Other implementation concerns…

- **Target Drug (Why not total abstinence?)**
  - Most commonly stimulants, sometimes cannabis, soon alcohol?
  - Opioids can be targeted only with patients for whom MAT is unavailable or unacceptable. The target (testing) must include ALL opioids and opiates.
- **Measuring abstinence.**
  - Toxicology testing with immediate results.
- **Type of reward.**
- **Preventing fishbowl fraud.**
- **Frequency of sessions.**
  - Twice-weekly: Mon-Thu, Tue-Fri, or Mon-Fri.
  - Thrice-weekly (M-W-F) also is possible.
- **Platform program.**
  - CM works with ALL forms of treatment and can be delivered in any setting.
- **Contraindications.**
  - (1) Medications that can produce false-positives for the target drug; (2) test results can be used punitively; (3) patient has received abstinence CM in the past 12months.

# CM Outcomes: The Empirical Literature

- Meta-analysis of 47 CM studies with treatment/control group design published between 1970-2002.
  - **Mean effect size =.42 (22% improvement in success rate).**
  - "Among the more effective approaches to promoting abstinence during the treatment of substance use disorders."
    - **Prendergast et al., *Addiction* 2006**

- Meta-analysis of 34 well-controlled studies of psychosocial SUD treatments (including CM, relapse prevention, CBT, and treatments combining CBT and CM) published between 1992-2004.
  - **Mean CM effect size =.58 (28% improvement in success rate).**
  - "The strongest effect was found for contingency management interventions."
    - **Dutra et al., *Am J Psychiatry* 2008**

# Implementing Contingency Management: Prelude to a National Effort

**Identify Need**

- In 2010, a VA-sponsored, RAND/Altarum study revealed that ~1% of Veterans treated in VA's addiction treatment system had CM available to them.

**Allocate Resources (Fiscal and Human)**

- In response to the RAND/Altarum study, VA…
  - Authorized funding both to train personnel on CM and purchase supplies necessary for implementation
  - Tasked the CESATE with coordinating the national implementation.

**Incorporate Implementation into Policy**

- VA policy recognizes CM as an evidence-based treatment that, "when clinically indicated, must be available to all patients meeting locally established patient inclusion criteria that are consistent with published evidence."

# Implementing Contingency Management: Post-training Coaching

- Prior to enrolling patients in CM, trainees participate in 2 CM Planning calls to review their CM implementation plan and maximize its alignment with the parameters of the intervention as presented in the training.

- In the first 6 months of enrolling patients, trainees participate in 4 Implementation calls (during early and later stages of implementation) to review emergent concerns (clinical and administrative) and monitor fidelity to the intervention. After the first 4 calls, calls occur every 6 months.

- Prior to each call, trainees submit detailed reports on implementation status, i.e. numbers of specimens collected and number testing negative, and fidelity to specific elements of the intervention, and concerns/questions.

# Published Research

THE AMERICAN JOURNAL ON ADDICTIONS

*The American Journal on Addictions*, XX: 1–6, 2013

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DOI: 10.1111/j.1521-0391.2013.12092.x

## Nationwide Dissemination of Contingency Management: The Veterans Administration Initiative

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**Background:** Contingency management (CM) is an empirically validated intervention but one not often applied in practice settings in the US

details about the typical CM program administered, and initial clinician and patient reactions to CM.

# Published Outcomes of VA's CM Implementation: 2011-2015

- **Patient Enrollment in CM**
  - From June 2011 to December 2015, VA provided CM to 2060 Veterans in 94 SUD treatment programs.
- **Participation in Coaching**
  - 94 Programs participated in 610 coaching calls. Mean=6.5 (SD=2.7); Range=1-11.
  - Over 74% (70 of 94) of the programs participated in at least 5 calls for at least 12 months after starting CM.
  - In total, 460 Implementation Forms were submitted. Mean=4.9 (SD=2.5); Range=1-10.
- **Attendance Outcomes**
  - Fifty percent of CM patients completed 14 or more CM sessions in a 12-week period.
  - In comparison, Oliva et al. (2013; Psychiatr. Serv.) found that only 42% of VA patients with an outpatient SUD treatment episode completed more than two sessions of care in a one year period.
- **Substance Use Outcomes**
  - 91.9% of the 27,850 Veterans' urine samples tested negative for the target substance.

# More Published Research

ELSEVIER

Drug and Alcohol Dependence
Volume 185, 1 April 2018, Pages 367-373


Full length article

## The national implementation of Contingency Management (CM) in the Department of Veterans Affairs: Attendance at CM sessions and substance use outcomes

Dominick DePhilippis [a, b], Nancy M. Petry [c], Marcel O. Bonn-Miller [b], Sarah B. Rosenbach [d], James R. McKay [a, b]

Show more

# Sustaining CM in VA: The CM Monthly Report

- Sustainability requires raising awareness about CM success among CM providers and potential CM providers.
- To meet that objective, the CESATE releases a monthly report on CM and makes it available to all VA MH leadership and providers via national VA email groups.
- The report includes:
  - Latest news
  - CM by the Numbers (updates on cumulative patients served and urine test data)
  - List of CM Implementation Sites

# Sustaining CM in VA: Dissemination of Success Stories

- To date, VA clinicians from across the country have provided the Philadelphia CESATE with thirty success stories detailing the recovery benefits accrued by Veterans who participated in CM.
- These stories provide an intimate portrait of recovery and demonstrate how CM's benefits generalize beyond abstinence and include improved quality of life with respect to mental and physical health, finances, employment status, housing stability, legal involvements, and interpersonal relationships. Here are some examples:
- "I am still sober and it is all because of this program. If other Veterans can get half of what I have then they will be able to learn how to measure needs and wants, to be able to learn the difference between good and bad values and how to measure each against the other."
- "I remember that awful feeling knowing I had a test coming up, knowing that I had used, the lengths I would go to and the money I would spend to try passing the test and ultimately failing. Because of Contingency Management that attitude has changed. Now I found myself waking up early, fighting through traffic, rushing to the lab so I can wait in line to test."
- "I would recommend the Contingency Management program to any Veteran that is having a difficult time with committing to a drug free life."
- "The Contingency Management Program went on for twelve weeks, and within this time period I learned how to live instead of just exist which also gave me a chance to plan future goals."

# Thoughts from CM Providers

- "The most pleasant surprise we have seen is our very first CM participant is still sober, he's married, and working. He is also now serving on the Board of Directors for a residential SUD program." – Chillicothe VAMC

- "Contingency Management is an innovative, non-traditional intervention method that stimulates motivation for change while supporting a client's goals for health, wellness, and recovery." – Memphis VAMC

- "I was surprised by how engaged the Veterans became with CM and how invested they were in the process. Some were a bit sad to be completing CM because it had become such a positive and predictable part of their lives." – Seattle VAMC

- "CM is really fun and a pleasurable experience for patients and staff alike. I look forward to seeing my regular CM patients and hearing about the things they are doing with their prizes….giving the candy to grandchildren, etc. It creates a different dynamic in the treatment setting." – Raleigh II Clinic (Durham VAMC)

# Contingency Management in VA: Implementation & Clinical Success To Date

- In the first eight years of VHA's national CM implementation (June 2011-June 2019), 108 VA stations have made CM rewarding abstinence available to Veterans pursuing recovery from SUD.
- To date, over 4,700 Veterans have received Abstinence CM; and, >92% of the >61k urine samples have tested negative for the target drug.
- Regarding retention, the number of samples provided (61,128) divided by the number of Veterans who've received CM (4,703) is 13 samples. Since CM involves twice-weekly sampling, the mean retention in treatment among CM patients is 6.5 weeks.

# Thank you!

**Your questions and comments are welcomed!**