

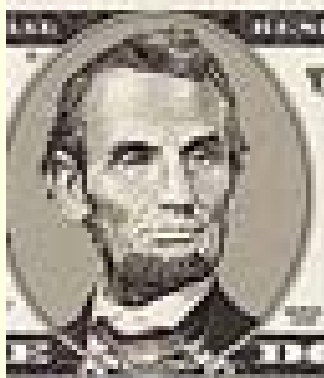
Managing Clients' Disability Benefits

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TAKE DRUGS AND LOSE ALL YOUR FRIENDS



Outline of Talk

- Why manage disability payments?
- Advisor-Teller Money Manager (ATM) , a money management-based substance abuse treatment
- Clinical trial of ATM at CMHC
 - Effect on cocaine use
 - Effect on payee assignment
 - Effect on delay discounting of future rewards
- Integrating Money Management, Contingency Management and Other Nudges

Why manage addicts' disability payments?

- Approximately 3.5 million people 18-65 receive SSI/SSDI for psychiatric disability other than mental retardation/Alzheimers
 - High rates of concomitant substance use
 - About 30% mandated to have a representative payee
- Drug Abuse is mis-spending
- Poor people value financial help
 - High ratings of need for financial help among hospitalized veterans (Rosen et al., 2002, Psychiatric Services)

Continuum of Money Management Services

ASSIGN A CONSERVATOR OF FINANCE TO MANAGE ALL FINANCES

RESTRICTIVE

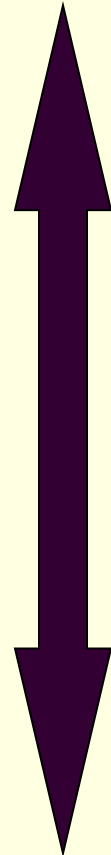
ASSIGN A REP PAYEE TO MANAGE BENEFIT PAYMENTS

KEEP PATIENT'S FUNDS IN A SEPARATE ACCOUNT

HOLD PATIENT'S CHECKBOOK

GIVE ADVICE

NOT RESTRICTIVE



Advisor-Teller- Money Management (ATM)

ATM- Three Functions

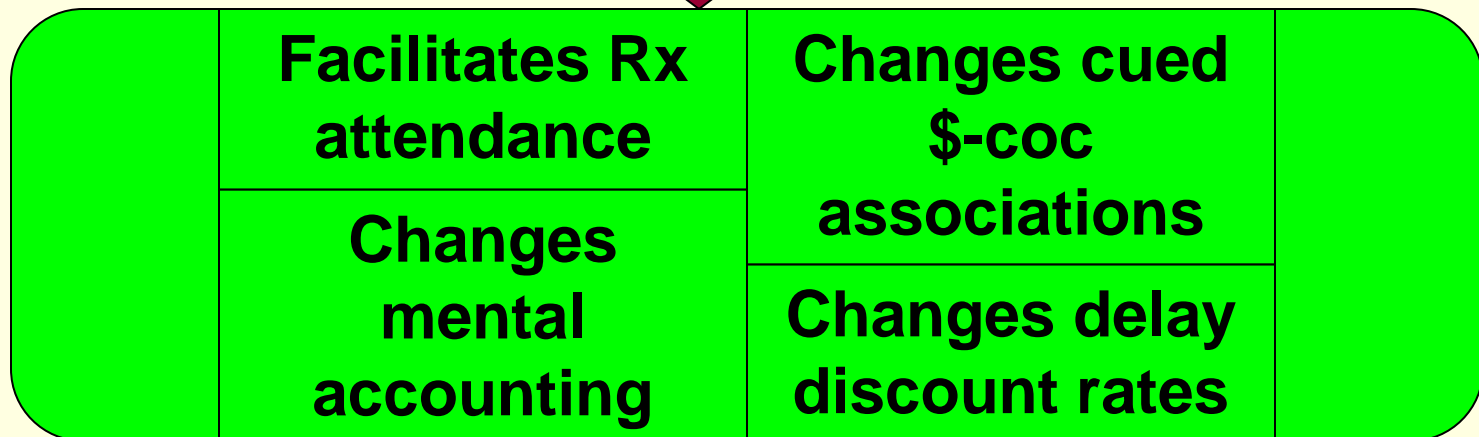
- Teller– storage of patient funds
- Training– setting longer-term spending goals, learning to budget, to manage funds better
- Treatment-linked Spending--
 - Behavioral contracts for weekly expenditures on treatment-linked activities
 - Weekly toxicology screens to guide spending
 - Exchange of information with clinician

Behavioral Economics Concepts in ATM

ATM Component	Behavioral Economics
Budget for non-drug purpose	Pre-commitment device; Framing; Mental Accounting
Storage of funds by money manager	Pre-commitment device; Choice Architecture with default saving
Money spent on drugs is wasted	Loss framing
Money saved for non-drugs purpose will be used for something the client wants	Gain framing
Therapist review budgets and urine toxicologies	Contingent reinforcement (praise/support for good behavior)

Proposed Mechanism of Action

ATM Treatment



Abstinence



Randomized Controlled Trial of ATM*

Patients randomly assigned to 36 weeks of :

ATM

or

Control

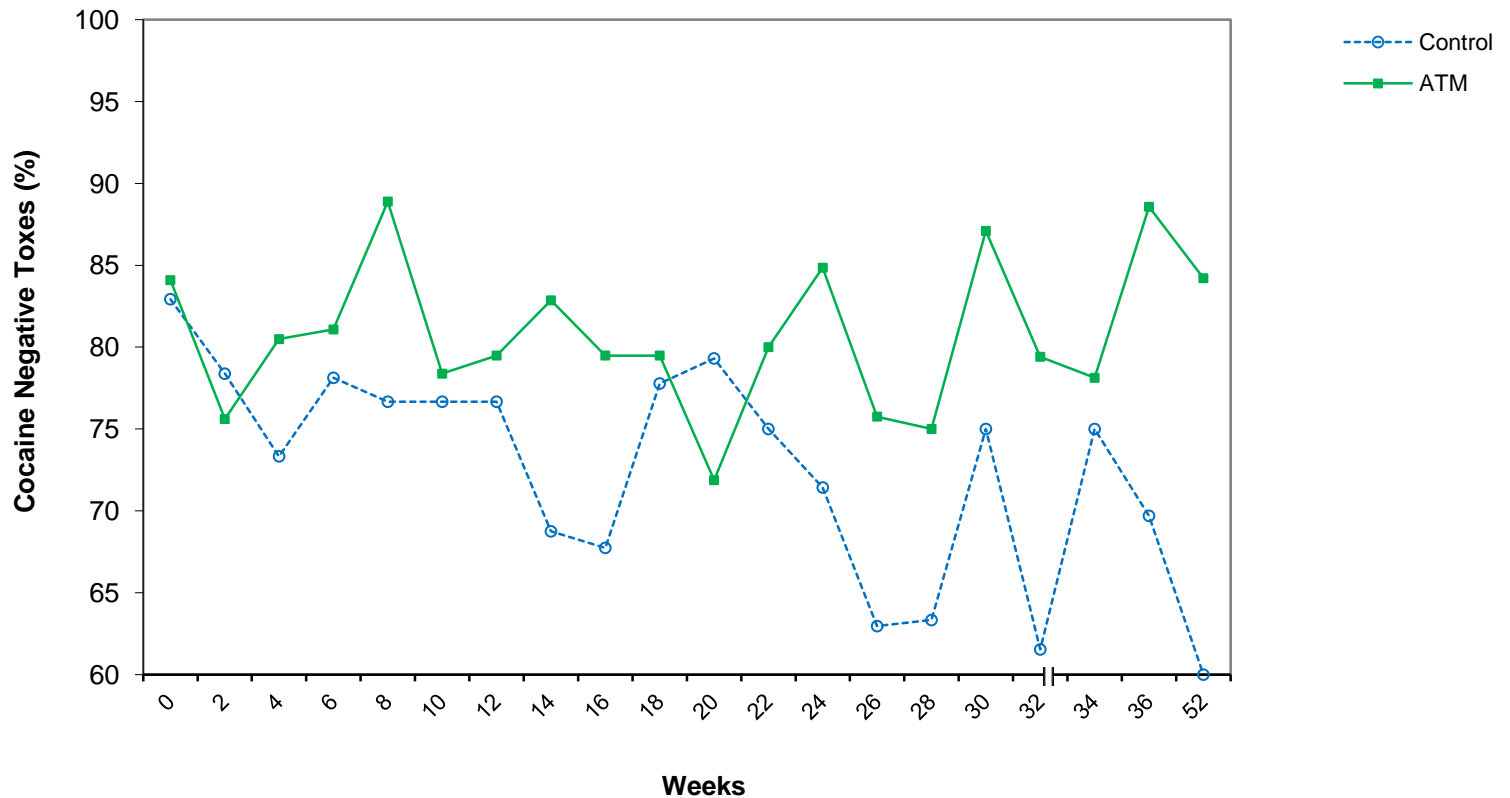
told finances impact drug use
given financial workbook to track
income and expenses
helped with the workbook

*Rosen et al., Psychiatric Services, 2010.

Participation in ATM

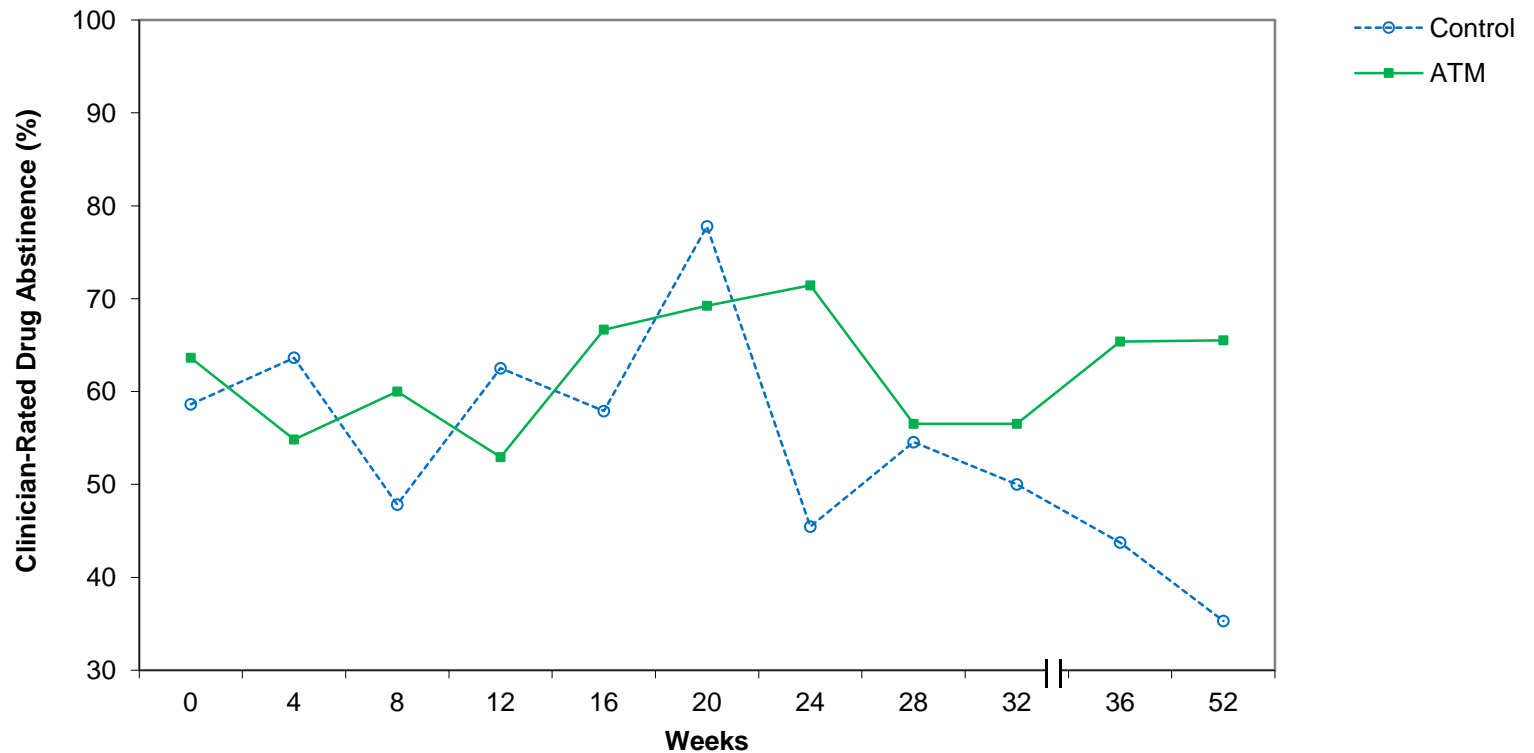
- Patients assigned to ATM attended many more treatment sessions than those assigned to control (mean ATM 15.5 vs. 2.2 Control, $p < .001$)
- 46% of ATM patients deposited money to the pooled account
- 48% gave the ATM therapist a checkbook to hold
- 82% did checkbook or funds storage
- Not much treatment-linked spending
- Only four requests for funds that were being held

Cocaine Abstinence (Tox Screens)



Group X Time Interaction
($p=.03$)

LEAD Clinician Rating of Drug Abstinence by Group



Group X Time Interaction
($p=.01$)

CMHC ATM Study Adverse Events

- Assault on money manager
- Agitation by patient assigned conservator
- No serious adverse events after these two with
 - More caution
 - Better staff training

Financial Approaches to Behavior Change



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Financial Approaches to Behavior Change

We are a research group in Yale's Department of Psychiatry.

Our group develops, tests and disseminates behavioral treatments to improve the quality of life of people with chronic illnesses. The behavioral treatments involve helping people align their money management with their values.

For example, ATM (Advisor Teller Money Manager) helps

Delores talks candidly about her experience in ATM.
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News

People reinforced for taking antiretroviral medication on time have lower viral loads
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Homeless, mentally ill people assigned payees did

Summary of CMHC ATM Study Findings

- Patients were willing to engage in ATM therapy
 - Attended many sessions
 - Deposited funds and/or checkbooks
- ATM was associated with reductions in several measures of cocaine use
- ATM was associated with a serious adverse event

CMHC ATM Study Ancillary Findings

- ATM clients were more likely to be assigned a payee/conservator than controls
- ATM was associated with less discounting of future rewards over time than seen in controls

CMHC ATM Study Representative Payee Assignment

- Ten patients assigned to ATM went on to be assigned conservators or representative payees
 - Only two assigned to Control were assigned payees ($\chi^2(1)=5.6, p=.02$).
- Clients assigned payees (vs. not assigned)
 - Lower GAF scores at baseline
 - Attended more therapy sessions.
- Qualitative Data: Clients assigned payees after:
 - More attention to their finances by third parties
 - OK experience having their money managed in ATM

Sample DDQ Items

1. *Would you prefer* (low discounting)

A. \$54.00 today $54 = \frac{55}{1+k*117}, k = .00016$

B. \$55.00 in 117 days

2. *Would you prefer* (high discounting)

A. \$31.00 today $31 = \frac{85}{1+k*7}, k = .25$

B. \$85.00 in 7 days

3. *Would you prefer* (moderate-level discounting)

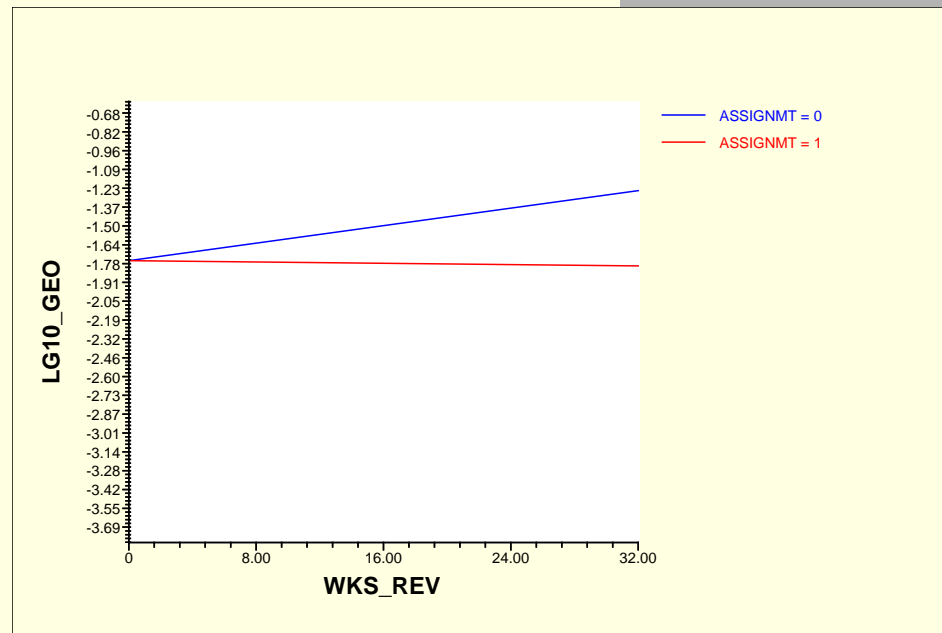
A. \$34.00 today $34 = \frac{50}{1+k*30}, k = .0157$

B. \$50.00 in 30 days

RESULTS:

Log-transformed k-values over time

- ATM therapy was associated with significantly lower k-values over time*
- Treatment group remained stable over time, control group increased in delay discounting over time

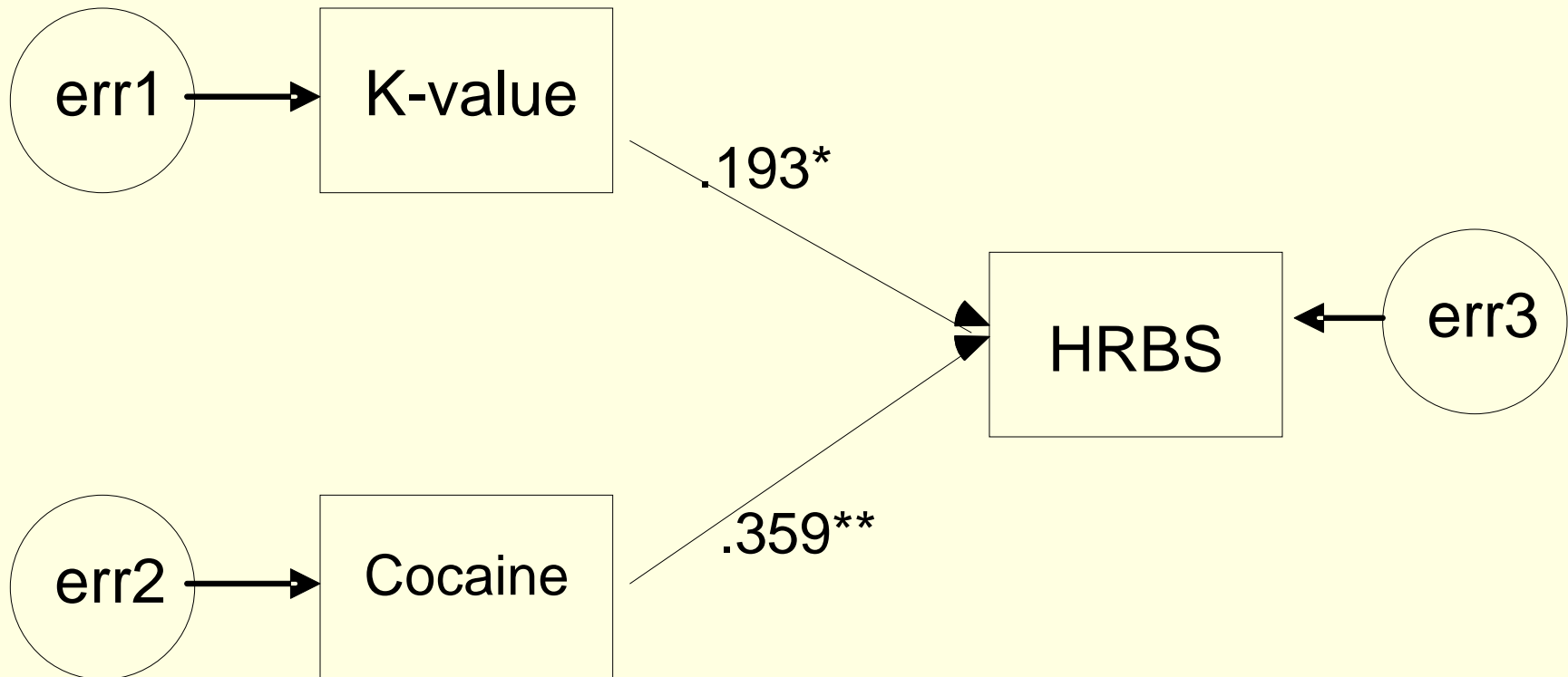


Mixed Model:

$$Lg10_k_{ti} = \beta_{00} + \beta_{10} Wks_{ti} + \beta_{11} Assignment_i * Weeks_{ti} + r_{0i} + r_{1i} * Wks + e_{ti}$$

*Black and Rosen, Addictive Behaviors, 2010

Preference for Immediate Rewards, and Cocaine Use Were Associated with Engaging in Unprotected Sex (Black et al., 2009)



ATM Follow-Up Studies

- Multi-site RCT of ATM with Debit Cards and HIV risk reduction focus
 - ATM associated with less preference for immediate rewards
 - Engaging in unprotected sex was associated with
 - Choosing immediate rewards
 - Recent cocaine use
 - ATM ameliorates two factors associated with unprotected sex (cocaine use, immediate rewards)
 - Therefore, ATM might reduce unprotected sex
- Develop reliable, valid measures to help clinician determine when a representative payee is needed

Nudges to Impact Clients' Spending

CLIENT FUNDS ONLY

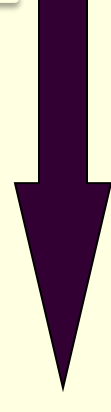
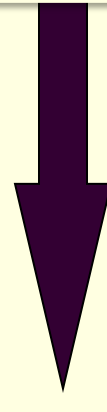
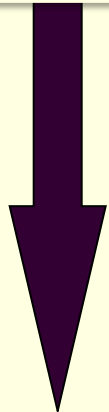
**VERBALLY
DISCOURAGE**

RESTRICTIVE

Possible Shifts in Delay Discounting Rate, Pairing of Money Management with Synergistic Interventions (e.g. psychiatric care, medication, work)

CLIENT FUNDS MATCHED

VERBALLY ENCOURAGE NOT RESTRICTIVE



ATM Acknowledgements

Founders: Robert Rosenheck, Bruce Rounsaville, Margaret Bailey

ATM Practice and Data: Karen Ablondi

ATM Data: Anne Black, Thomas McMahon

Patient Assessments: Kristin Serowik

CMHC Clinicians and Clients who Participated

RO1-DA12952-09 (MIR), VISN 1 MIRECC and
P50-DA09241

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