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/Alzheimer's
  - 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

- Give advice
- Hold patient's checkbook
- Keep patient's funds in a separate account
- Assign a rep payee to manage benefit payments
- Assign a conservator of finance to manage all finances

Restrictive vs. Not Restrictive
Advisor-Teller-Money Management (ATM)
ATM- Three Functions

- **T**eller– storage of patient funds
- **T**raining– setting longer-term spending goals, learning to budget, to manage funds better
- **T**reatment-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

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

ATM Treatment

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<th>Facilitates Rx attendance</th>
<th>Changes cued $-coc associations</th>
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<tr>
<td>Changes mental accounting</td>
<td>Changes delay discount rates</td>
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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

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)

Weeks 0 to 52

- **Cocaine Negative Toxes (%):**
  - Control (dotted blue line)
  - ATM (solid green line)

**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

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 people to manage their finances more effectively.

News

People reinforced for taking antiretroviral medication on time have lower viral loads.
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
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
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 \[ 54 = \frac{55}{1+k \times 117}, k = .00016 \]
   B. $55.00 in 117 days

2. Would you prefer (high discounting)
   A. $31.00 today \[ 31 = \frac{85}{1+k \times 7}, k = .25 \]
   B. $85.00 in 7 days

3. Would you prefer (moderate-level discounting)
   A. $34.00 today \[ 34 = \frac{50}{1+k \times 30}, k = .0157 \]
   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:

\[ \log_{10} k_{ti} = \beta_{00} + \beta_{10} Wks_{ti} + \beta_{11} Assignment_i * Weeks_{ti} + r_{0i} + r_{1i} * Wks_{ti} + \epsilon_{ti} \]

*Black and Rosen, Addictive Behaviors, 2010
Preference for Immediate Rewards, and Cocaine Use Were Associated with Engaging in Unprotected Sex (Black et al., 2009)

- Preference for Immediate Rewards
- Cocaine Use
- Engaging in Unprotected Sex

Diagram:
- K-value
- HRBS
- Cocaine
- err1
- err2
- err3

Correlations:
- K-value to HRBS: .193*
- Cocaine to HRBS: .359**
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
Possible Shifts in Delay Discounting Rate, Pairing of Money Management with Synergistic Interventions (e.g. psychiatric care, medication, work)
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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For example, ATM (Advisor Teller Money Manager) helps Delores talk candidly about her experience in ATM.

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