

Keeping It Positive: Using Contingency Management in Substance Abuse Treatment

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Origins of Operant Conditioning and Behavior Modification

- Hull, Thorndike, and Skinner all contributed to the development of Operant Conditioning
- Skinner is the one who is most associated with this approach

B. F. Skinner



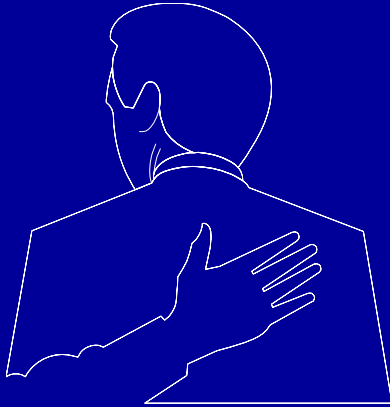
Consequences Change Behavior

- Rewards and reinforcements lead to increases in behavior
- Punishments lead to decreases in behavior

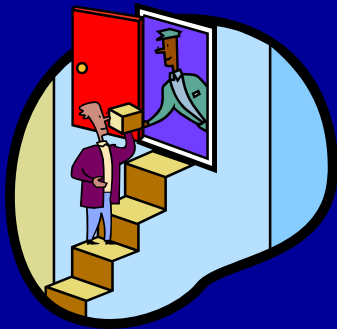
Reinforcement

- Positive Reinforcement – the *presentation* of the reinforcement increases the likelihood of the behavior occurring

Examples of Rewards



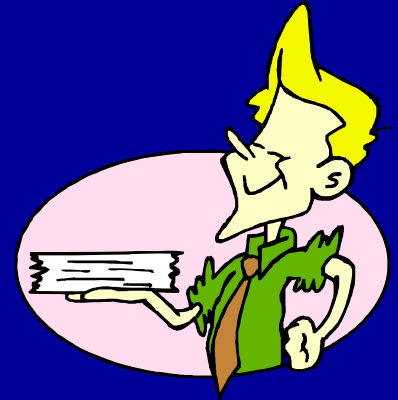
Attention, Pat on the Back



Privileges



Prizes and Gifts



Vouchers and Gift
Certificates

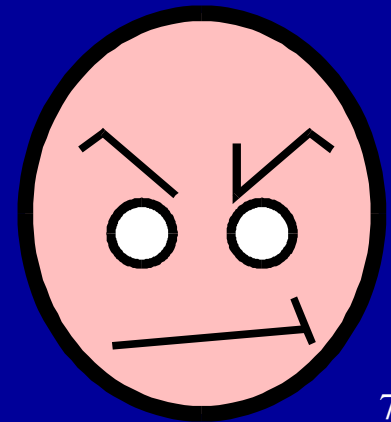


Services ₆

Examples of Punishers



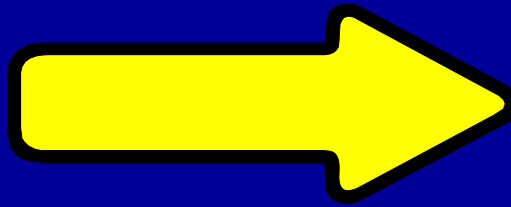
- **Fines**
- **Tickets**
- **Restrictions**
- **Sanctions**
- **Displeasure**



It is the **CONTINGENCY**
that matters.....



BEHAVIOR



REWARD



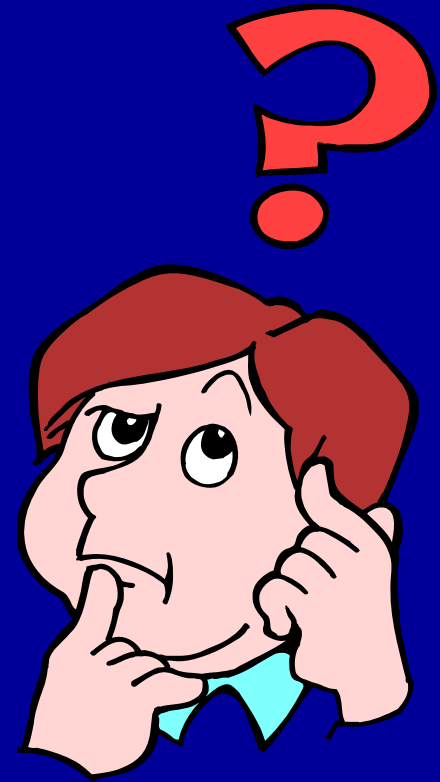
*It is the connection that is
key!*

*Giving things away for free
does NOT change
behavior!*

Contingency Management and Addiction

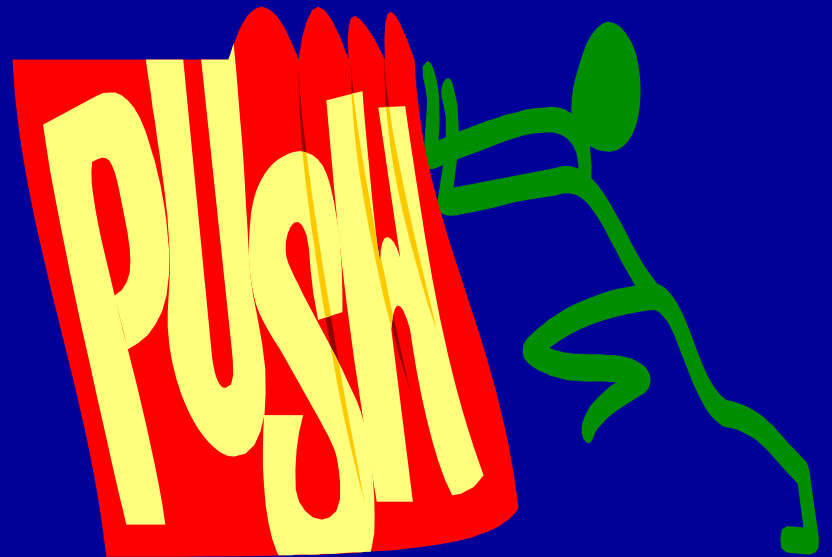
REALITY CHECK.....

**What REALLY
makes patients
come to treatment?**



Negative Consequences of Drug Use

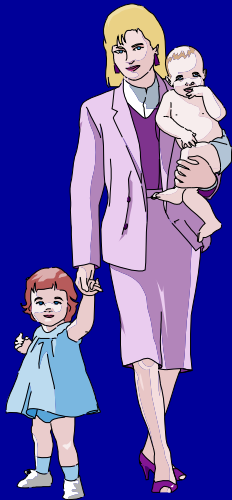
Treatment



External Negative Consequences



Family Members
Employers
Parole/Probation
Child Protective Services



Personal Negative Consequences



Many Patients Come to
Treatment Because
BAD Things are Happening,
Others are Angry with Them,
They are Tired and Depressed,
They have run out of money,
They Want Life to Change
BUT.....



Drugs are
**Positive
Reinforcers**

They Make People
Feel Good.



Continue Use



Abstinence

Drug Abusers Straddle the Fence

Behavioral Results of Ambivalence

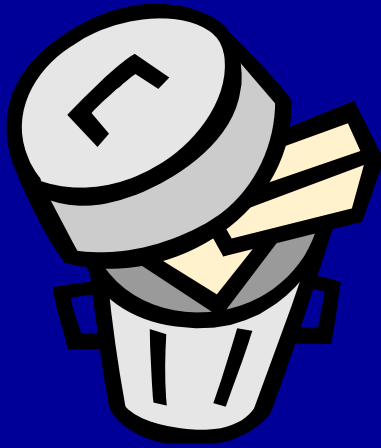
Some patients stop using

**Some patients
continue to
use drugs
during
treatment**

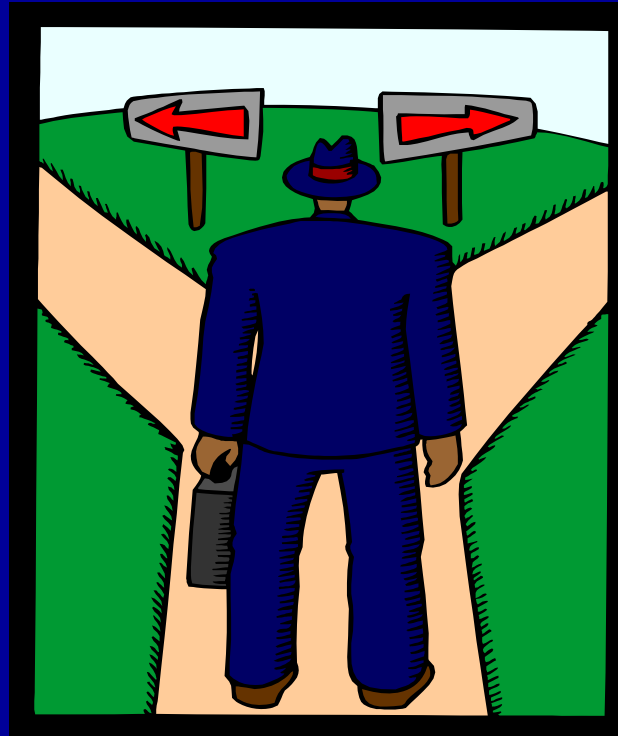


**Some
patients
drop out of
treatment
early**

Methods are needed to:



**Continued
Drug Use**



**Drug
Abstinence**

- **counteract ambivalence**
- **increase motivation for change**

Contemporary Addiction Studies

Early Period

- There was some exciting work done with alcohol-dependent patients in the late 60's and early 70's
- The addiction treatment field ignored these findings
- Some feel that the prevailing treatment models were not able to incorporate the idea that substance use patterns could be responsive to external contingencies (Bigelow & Silverman, 1999)

Interim Period

- From the late 70's onward, contingency management was primarily championed by Dr. Maxine Stitzer at the Johns Hopkins University
- Her efforts focused primarily on the work with methadone patients
- She worked with naturally-occurring reinforcements such as take-home methadone doses for toxicology-free urine samples

Modern Period

- It is with the “crack” cocaine epidemic of the late 80’s, that attention returned to reinforcement systems
- Dr. Stephen Higgins, a student of Dr. Stitzer’s, conducted a series of studies with cocaine users at the University of Vermont
- The excitement generated by the findings of his group would revitalize the use of contingency management for addicted individuals

Reinforcement Systems

Reinforcement Systems

- Three basic types have been used in addiction settings
 1. Contingent access to privileges
 2. On-site prize distribution
 3. Vouchers/token economy systems

Access to Privileges

- Popular in some of the earlier studies in methadone clinics
- If the patient tested negative for the target drug using an immediate, on-site testing method
- They would get a take-home bottle of methadone for the next day

“Fishbowl” Prize Models

- Patients get reinforced some of the time
- Pick a chit out of a bowl
- Worth varying levels (\$0, \$1, \$20, \$100)
- Different prizes at different levels
- They receive the prizes on the spot
- Greater immediacy to the reinforcement

Voucher Models

- Patients have a “bank account”
- Earn money each time that they give a drug-free sample
- Can spend it on counselor-approved items and activities
- No cash actually enters their hands
- Patients have greater flexibility in choosing reinforcements
- Connected to more traditional token economy methods

Retention in Treatment



<http://ima.dada.net/image/2586966.jpg>

Contingency Management for Alcohol Use

- Used a “fishbowl design” with a 75:25 reinforcement ratio
- Retention at 12 weeks
- 84% of CM group still in treatment ($n = 19$)
- *22% of Control group still in treatment* ($n = 23$)
- (Petry et al., 2000)

Contingency Management for Cocaine Use (CTN)

- “Fishbowl” method with low level reinforcements; 50:50 reinforcement ratio
- Retention at 12 weeks
- 49% of CM group still in treatment at 12 weeks ($n = 209$)
- *35% of Control group still in treatment at 12 weeks* ($n = 206$)
- (Petry et al., 2006)

CM for Heroin and/or Cocaine Users

- 3 levels of intervention
- “Fishbowl” prize, Voucher incentive, and Treatment as Usual (TAU)
- Retention
 - ~63% of Prize group in treatment at 12 weeks ($n = 51$)
 - ~39% of Voucher group in treatment at 12 weeks ($n = 53$)
 - ~15% of TAU group in treatment at 12 weeks ($n = 38$)
 - (Petry et al., 2005)

Abstinence Rates



Cocaine-Using Methadone Patients

- Voucher incentive versus Control (yoked reinforcement) in a methadone clinic
- Attaining 2 weeks or more of sustained cocaine abstinence in a 12-week study
- 63% of Voucher group achieved this ($n = 19$)
- *11% of Control group achieved this ($n = 18$)*
- (Silverman et al., 1996)

Cocaine-Using Methadone Patients

- Attaining 8 weeks or more of cocaine abstinence during this 12-week study
- 42% of the Voucher group achieved this
- *0% of the Control group achieved this*
- (Silverman et al., 1996)

Cocaine-Using Methadone Patients

- 16 Week Study
- Voucher-based CM, CM + CBT, CBT alone, MMTP TAU ($n = 30$ for each group)
- Percent achieving 3 or more weeks of cocaine abstinence
- CM alone = 63%
- CM + CBT = 57%
- CBT alone = 40%
- *MMTP TAU = 27%*
- (Rawson et al/. 2002)

Cocaine-Using Methadone Patients: One Year Study

- Voucher incentives, take-home bottle reinforcement, and TAU ($n = 26$ for each group)
- Mean Duration of *Cocaine Abstinence*
- Voucher Group = 26.7 weeks
- Take-Home Group = 10.1 weeks
- *TAU = 3.7 weeks*
- (Silverman et al., 2004)

Cocaine-Using Methadone Patients: One Year Study

- Voucher incentives, take-home bottle reinforcement, and TAU ($n = 26$ for each group)
- Mean Duration of *Opiate Abstinence*
- Voucher Group = 27.4 weeks
- Take-Home Group = 12.5 weeks
- *TAU = 6.3 weeks*
- (Silverman et al., 2004)

Cocaine-Using Methadone Patients (CTN)

- “Fishbowl” method, low-level reinforcement, 50:50
- Cocaine negative urine samples over 12 weeks
- CM group = 54.4% ($n = 204$)
- *Control group* = 38.7% ($n = 190$)
- (Peirce et al., 2006)

CM for Heroin and/or Cocaine Users

- 12 weeks of consistent abstinence from heroin, cocaine, and alcohol
- 45% of Prize group achieved 12 weeks of abstinence
- 28% of Voucher group achieved 12 weeks of abstinence
- *8% of TAU group achieved 12 weeks of abstinence*
- (Pettry et al., 2005)

Seven Principles of Motivational Incentives

Seven Principles

- 1. Target behavior
- 2. Target population
- 3. Choice of reinforcer
- 4. Incentive magnitude
- 5. Frequency of reinforcer distribution
- 6. Timing of the incentive
- 7. Duration of the intervention

Meta-Analytic Study

Parameters for Effective Interventions

- Target abstinence from a single substance, not several
- Larger magnitude reinforcements are more effective
- The more immediate the reinforcement, the more effective it is (Lussier et al., 2006 in Heil, Yoon, & Higgins, 2008)

The Dissemination Process

Science Meets Practice

- As an outgrowth of a Contingency Management Panel presented at the NIDA CTN Blending Conference held in New York in March, 2002
- A collaboration was developed among
 - Ms. Marylee Burns
 - Mr. Peter Coleman
 - Ms. Joyce Wale
 - All of the Office of Behavioral Health of the New York City Health and Hospitals Corporation (HHC) and
- Scott Kellogg, PhD (The Rockefeller University/CTN)

Science Meets Practice

- Secondary support was provided by:
- Maxine Stitzer, PhD (Johns Hopkins/CTN)
- John Rotrosen, MD (NYU/CTN)
- Mary Jeanne Kreek, MD (Rockefeller University/ CTN)

Background to the Collaboration

- HHC – Largest drug treatment provider in the US
- The HHC Behavioral Health leadership wanted to improve the quality of chemical dependency treatment in New York City
- Burns and Coleman were interested in the Contingency Management approach
- Were beginning a program to use incentives or rewards in their vocational training programs in the New York City methadone and medication-free clinics

Background to the Collaboration

- The issues that emerged in our collaboration
- Typical of dissemination efforts in general

The Original Plan

- As organized at that point, each HHC clinic was expected to create a plan for distributing reinforcements
- The idea was that when patients reached various benchmarks, they would receive a prize or reward (i.e., a gift certificate)
- After our dialogue about CM, it became clear that there might be several shortcomings to this plan

Potential Shortcomings

- In essence, they were creating a “reward” program rather than a “reinforcement” program
- The differences between reward and reinforcement were clarified during our dialogues and encounters with program staff

Reward Vs. Reinforcement

- The reward program was set up to acknowledge major accomplishments
 - Maintaining abstinence for 1 month;
 - Holding a job for 3 or 6 months;
 - Completing a one-year program;
 - In a sense, it was a program to reward “virtue”

Reward Vs. Reinforcement

- Problem – reward comes after the completion of the goal
- Most likely to be received by the highest functioning or most successful patients
- While a form of acknowledgment, it is not likely to be powerful enough to motivate behavior change
- Not likely to help patients who are struggling

Reinforcement Programs

Contingency management programs, at their best:

- Reinforce each of the steps and each of the components that are involved in reaching the goal
 - Not just the attainment of the goal
- Can be more gradualistic
- Focus more on initiating and maintaining behavior change
- We can go from “You have done a good job” to “You have taken a step in the right direction”
- This way, not only the most motivated patients, but also those who are more troubled and/or more severely addicted have the opportunity to benefit (Petry et al., 2001)

Clinical Considerations

- Emphasize the positive
- Focus on the good things the patients did -- not their failings
- Any steps in the right direction is a cause for celebration
- In the face of setbacks, patients should be encouraged, not criticized

Implications for Counseling

- CM is not a substitute for counseling
- Reinforcements do not directly teach people how to abstain nor do they provide skills –
- They simply strengthen behaviors that lead to that outcome

Implications for Counseling

- Counselors have a valuable therapeutic opportunity to explore with their patients what actions they took to avoid using drugs
- This can be used to develop future coping strategies

First Project

- 7 Clinics
- Each would develop its own version based on:
 - The core principles
 - The specific needs of the clinic
- Reinforcements were distributed in both group and individual settings
- Programs also expanded upon existing award ceremonies

Targeted Behaviors

- Group attendance
- Goal attainment
- Negative toxicologies
- Completion of medical and psychosocial histories

Reinforcements

- McDonald's coupons, movie passes
- Gift certificates from major department stores and music outlets
- Transportation vouchers ("metro cards"),
- Date books, calendars, books
- Tools, microwaves, water bottles
- Clothes, tee-shirts, sunglasses, toiletries
- Things for children, food, and candy

Reinforcements

- Over time, it was estimated that they spent
- \$50 - \$100 per patient/per year

Leadership

- The successful introduction of contingency management to a drug treatment facility usually comes from two forces
- The top leadership has made the decision to implement it
- Idea champions emerge from among the staff members

Introduction

- Unfortunately, even starting a project like this can be met with opposition

Resistance

- “This was a long and hard process and there were lots of fights. Staff saw it as a negative at first.... As the director, I allowed the staff to ventilate.
- The Vocational staff started the whole process because their orientation is far more receptive to this kind of thing.” (Program Director)

HHC Patient Experiences

- Patients were very enthusiastic about the program from the start
- Their emotional reaction that helped to sway the counselors
- Some patients initially met the idea that they would get a prize for attending a group with disbelief;
- They had to actually see the prize before they would believe that it was not a trick.

HHC Patient Experiences

- The counselors perceived that the patients' self-esteem was beginning to rise – that they were becoming more empowered
- Manifested in
 - Improvements in their appearance,
 - Development of goals – typically of a vocational or educational nature

Patient Experiences

- “Clients were saying...In Russia, we were forced into treatment -- Now (crying), my God, I’m getting treatment and \$25.00!”

Patient Experiences

- “Clients were saying...In Russia, we were forced into treatment -- Now (crying), my God, I’m getting treatment and \$25.00!”
- “Clients are proud and are having fun. Early in treatment, when their name is called out, they are feeling good that they are being acknowledged. For once in their life, they are being rewarded for something.”

Patient Experiences

- “Clients were saying...In Russia, we were forced into treatment -- Now (crying), my God, I’m getting treatment and \$25.00!”
- “Clients are proud and are having fun. Early in treatment, when their name is called out, they are feeling good that they are being acknowledged. For once in their life, they are being rewarded for something.”
- “We know that clients’ dreams were lost to drug addiction. Now, clients are able to go to Macy’s and J.C. Penney. This is big time for them; they’re able to shop at prestigious stores.” (Counselor reports)

Patient Experiences

- A core issue here was the profound emotional and economic deprivation that these patients had experienced and continued to experience
- The reinforcements and awards were so powerful because some believed that the staff did not care about them

Patient Experiences

- Others, in their 30's and 40's, had never received a certificate for anything
- Because of their high levels of economic deprivation,
- The gift certificates frequently made a significant difference in their lives

HHC Patient Change Processes

- The basic process was that the reinforcements got them to the groups and motivated them to stay,
- Then the power of the group began to have its impact
- As has been noted elsewhere (Pettry et al., 2001),
- Patients first came for external reasons and
- Then chose to stay because of their internal motivations.

Increasing Connectedness

- Patients who participated in the program often began to become more socially integrated
- First, their sense of connection to the program grew and they participated more freely in its events

Patient Experiences

- “The staff have heard clients say that they had come to realize that there are rewards just in being with each other in group.
- There are so many traumatized and sexually-abused patients who are only told negative things. So, when they hear something good – that helps to build their self-esteem and ego.”
(Director)

Patient Experiences

- “As one patient put it, ‘I used to think the drug dealer cared for me but this is really caring.’”
(Counselor)

A Coney Island Memoir

- “One of my Russian clients was extremely shy and isolated – she avoided group affiliation.
- One morning, she sat in the back of the room and watch the fishbowl meeting.
- She came back and, in fact, earned a chance for a draw.
- Others cheered her on and she hesitantly selected a prize and then talked to others about her choice.

A Coney Island Memoir

- This small prize was the great equalizer.
- She didn't feel like an outcast any longer
- She had something in common with others – and was able to have fun – something she had forgotten how to do.”

Patient Experiences

- The prizes also became a vehicle for family healing
- Patients used their gift certificates to buy presents or needed items for their children or other family members
- In a number of cases, these actions began a process of reconciliation

Patient Experiences

- Lastly, patients began to socialize with each other
- Would use their coupons and go to movies together in groups
- Reports that they were taking care of each other and giving each other gifts

Internalization

- They developed increased sense of ownership and responsibility for their program and their recovery
- As one counselor put it, they went from “You are forcing me” to “I choose”

Patients with Co-Occurring Disorders

- *Director:* Reinforcement incentives have been enormously helpful.
- We're passionate about using contingency management.
- We've talked to patients – new and old – and there's nothing negative about it.
- Maybe the dually-diagnosed are a bit “needier” and so it is essential to reinforce as expected

Patients with Co-Occurring Disorders

- So many dually-diagnosed patients have had negative experiences filled with rejection –
- Nobody wants them.
- This brings home the idea that they, in fact, are welcome.

Counselor Experiences

- Once they overcame their resistance,
- Counselors reported that they loved the intervention
 - That it was energizing and exciting;
- There was an improvement in their morale as their enthusiasm grew

Counselor Experiences

- “It gives me a great deal of pleasure to know I’m part of a state-of-the-art methadone treatment program.”

Counselor Experiences

- Their perception of the use of reinforcements also began to change

Counselor Experiences

- Their perception of the use of reinforcements also began to change
- “We came to see that we need to reward people where rewards in their lives were few and far between.
- We use the rewards as a clinical tool – not as bribery, but for recognition.
- The really profound rewards will come later.”

Counselor Experiences

- Staff morale was also boosted by the increases in attendance at their groups

Counselor Experiences

- Staff morale was also boosted by the increases in attendance at their groups
- “It is a lot easier to do a group with more people. ... You don’t have to chase people down. The staff feel more fulfilled.”

Counselor Experiences

- Another counselor said: “Now, there’s no need for coercion, no more contracts.
- There’s more a sense of the clients volunteering.
- Before we felt like jailers, now we’re looked at differently...”

Counselor Experiences

- When patients publicly, and sometimes tearfully acknowledge the counselor's help in public, the staff felt a sense of gratitude

Counselor Experiences

- When patients publicly, and sometimes tearfully acknowledge the counselor's help in public, the staff felt a sense of gratitude
- “In the last two award ceremonies, clients said, ‘I want to thank the staff....’ That sounded real good – we feel appreciated.”

Counselor Experiences

- Clearly, much of the staff appeared to take the positive reinforcement approach to heart
- They began to affirm and celebrate even small steps in the right direction

Counselor Experiences

- In what could be seen as an example of “gradualism” (Kellogg, 2003),
- Patients were reinforced by some counselors if they went from using two drugs to using one

Counselor Experiences

- “I felt resistant at first.... But, as it caught on, I began to like giving points to clients.
- I saw that my client wasn’t using dope, only coke, and I’d say – give him a point!
- So, now I’m very involved.”

Counselor Experiences

- Lastly, relationships among the different staff services improved

Counselor Experiences

- Lastly, relationships among the different staff services improved
- “Last year, the staff were not positive. They were very territorial, and somebody was always waiting to attack this idea.
- Perhaps they were feeling very threatened... Now, the staff are more cohesive.”

Clinic Changes - Mood and Culture

- Another unexpected, yet welcome, result was the marked decrease in conflict and disruptive behavior in some of the clinics

Clinic Changes - Mood and Culture

- “The mood has changed in the last 6 months – there has been less disciplinary action – in fact, no fights at all.
- There has been no need for escorting people out of the building as has been the case in the past.”

Clinic Changes - Mood and Culture

- “I think it does strengthen the alliance with the team, not just one counselor. The program has become nurturing.”

Staff, Patient, and Clinic Overall Impressions

- At our one-year follow-up visit,
- The program was extremely popular among both patients and staff
- It was uniformly seen as a success
- The patients loved it, and some reported that it had saved their lives.

Staff, Patient, and Clinic Overall Impressions

- They felt that their drug use had been getting worse and worse
- It was the contingencies that empowered them to choose a different life direction
- The staff and leadership were very excited about and proud of their reinforcement programs.

Epilogue

- Would eventually spread to 22 Units –
 - 6 methadone
 - 8 medication-free
 - 6 detoxification units
- Would have a major impact on inpatient detoxification units as factor in reducing AMA departures
- Thousands of patients became the recipients and beneficiaries of positive reinforcements
- The largest clinical adoption of this technique in history

Conclusions

- Contingency management, after decades of opposition, appears to be primed to enter the mainstream

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- Contingency management, after decades of opposition, appears to be primed to enter the mainstream
- Contingency management, when properly utilized, is the most powerful psychosocial intervention available in the addictions treatment field

Conclusions

- Many extremely-addicted individuals are willing and able to change their drug use behavior when offered reinforcements of significant magnitude
- It is an opportunity for creative clinical innovation

Conclusions

- The full meaning and impact of contingency management on our understanding of addiction and its treatment has not yet been realized

Conclusions

- Marlatt and Kilmer (1998) suggested that we seek to make treatment and recovery a positive and reinforcing experience
- An experience that is designed to compete with that of drug use
- CM might be a good way to start doing this

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Enhancing the State's Capacity to Foster the Adoption of EBPs: The Role of the NY SSA

A Case Study on the Implementation of Contingency Management within two
NYC Methadone Programs

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Study Aims and Hypotheses

- Aim 1: Assess and Evaluate SSA role in the transfer of CM intervention into “real-world” clinical practice (IOM)
- AIM 2: Evaluate the utility of the state developed Practice Adoption Protocol (PAP)
- AIM 3: Explore approaches to monitoring the adoption of EBPs
- H1-H6: The application of Backer’s 6 strategies to the adoption process will enhance the likelihood that the EBP will be adopted

Sample Size and Characteristics

- Original Cohort: 3 Hospital-Based MMTPs-
1 upstate, 2 NYC
- Implementation Sites: 2 NYC MMTPs
- Patient Enrollment: 30 per site, 3 cohorts
of 10 patients/per site
- Staff Enrollment: 5 per site-clinical,
administrative, and medical

Data Collection and Measurement Tools

- Quantitative Data: ORC Scales, ETA Scales, SCIP, Patient Tracking Logs (Toxicologies and Group Attendance)
- Qualitative data:
 - External Advisory Committee Meetings
 - Internal Advisory Committee Meetings
 - Project Management Team Meetings
 - Weekly Site Conference Call Meetings
 - Qualitative Semi-Structured Interviews of State and Site Staff

Implementation Strategies

- Formation of partnerships among researchers, practitioners and state policymakers to improve knowledge transfer and promote site adoption
- Use of a Case Study approach to describe the role of the SSA
- Apply OASAS' Practice Adoption Protocol which articulates specific state activities to promote adoption within Backer's conceptual framework

Backer's Framework: 4 Fundamental Conditions

Dissemination

Evaluation

Resources

Human Dynamics of Change

6 Key Strategies

- Interpersonal Contact
- Planning and Conceptual Foresight
- Outside Consultation on the Change Process
- User-Oriented Transformation of Information
- Individual & Organizational Championship
- Potential User Involvement

Implementation Design

- Readiness Phase: *Months 1-6*
- Implementation Phase: *Months 7-12*
- Routinization & Data Anal: *Months 13-16*

PAP -Demonstration

PAP PHASE	Backer Condition	Backer Strategy
Readiness Phase (mos.1-6)		
Re 6: Identify provider idea champions (IC) for site coordination	<ul style="list-style-type: none"> ■Resources ■Human Dynamics of Change 	<ul style="list-style-type: none"> ■Individual & Organizational Championship
Re 7: Schedule &arrange for on-site provider training of clinical staff selected by IC. Training by NIDA CTN expert (Petry)	<ul style="list-style-type: none"> ■Resources ■Dissemination 	<ul style="list-style-type: none"> ■Outside Consultation ■Transformation of Info ■Potential User Involvement
Re 9: Coordinate w/ IC patient behaviors to target w/ CM	<ul style="list-style-type: none"> ■Human Dynamics of Change ■Evaluation 	<ul style="list-style-type: none"> ■Planning &Conceptual Foresight ■Potential User Involvement

PAP -Demonstration

PAP PHASE	Backer Condition	Backer Strategy
Implementation Phase (mos.7-12)		
IM 5: Convene weekly phone meetings w/ ICs to monitor implementation, ID emerging issues	<ul style="list-style-type: none"> ■Resources ■Evaluation 	<ul style="list-style-type: none"> ■Outside Consultation on the Change Process ■Interpersonal Contact
Routinization (mos.13-16)		
RO 4: Conduct qualitative interviews	<ul style="list-style-type: none"> ■Evaluation 	<ul style="list-style-type: none"> ■Outside Consultation on Change Process

Key Findings

- Site Level:
 - Pre-readiness phase 12 months, not 3 as anticipated-why?
 - IRB
 - Contracts and funding
 - Physical space
 - Union issues
 - Vendor restrictions

- Implementation phase-9 months, not 5 as anticipated-why?
 - Three patient cohorts, not one as designed. Patient enrollment limited to 10 per cohort, not 30 as planned
 - Recruitment of patients effected by clinic cycles-holidays
 - Site fiscal procedures limited staff access to funds
 - Staff turnover, clinic mergers
 - Absence of CM interventionist back-up

Key Site Components for Successful Implementation

- Staff cohesion
- Buy- in about the efficacy of CM
- IC accessible & possessed leadership/organizational skills
- TA from consultant and state staff
- Staff involvement in each step of the process
- Successful patient outcomes

Site Level Patient Recruitment/Retention Impediments

- Increased chronicity of patients enrolled
- Staff availability given 50:1
Patient/Counselor ratio
- Change in targeted behavior
- Decreased staff enthusiasm over time
- Additional required Protection of Human
Subjects training

State Level Improvement Opportunities

- Resolution needed IRB process-Research vs. Treatment as Usual
- Initial provider solicitation needs to build in more items to assess organizational readiness/capacity
- Executive sponsorship needs to be more defined roles/responsibilities

- Weekly conference calls during implementation helpful, but entire clinic CM team should be included on calls, not just IC
- Only IC had ongoing contact with expert-filtering of message
- Direct observation by expert was lacking-limited to review of patient tracking logs and phone feedback
- No ongoing feedback loop with executive sponsors
- Staff burden needs to be addressed-dedicated CM clinician or reduced caseload

- Resistance of providers to have partners intervene-COMPA,ASAP, state
- PAP must be refined to include both provider and state activities/phases, particularly pre-readiness
- End User involvement & flexibility of state important
- Hospital-based MMTPs exist within a complex system: free-standing MMTPs may present less challenges
- Regulatory function of the state does not translate into EBP capacity

Next Steps

- State exploring application of current Implementation Science paradigms into PAP (Fixsen, 2005) Shift from 3 phases to 6 stages
- Build upon R21 findings-develop RO 1 RCT Pay for Performance vs CM immersion
- Schedule presentations by Fixsen (outside consultant on the change process) with state executive staff-**GOAL**: align policies and resources for effective practice
- Integrate findings into SSA Strategic Destinations/Metric Implementation

References

- Lamb S, Greenlick MR, McCarty D (Eds.), (1998) *Bridging the Gap Between Practice and Research*. Washington, DC Institute of Medicine: National Academies Press
- Backer, T.E., David, S.L., Soucy, G. (1995) *Reviewing the behavioral science knowledge base on technology transfer*. NIDA Res. Monograph 1995; 155:1-20
- Fixsen, D.L.; Naoom, S.F., Blasé, K. A., Friedman, R.M.& Wallace, F (2005)*Implementation research: A synthesis of the literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute