



SUBSTANCE USE DISORDER: PSYCHOTHERAPEUTIC INTERVENTIONS



NEED FOR EVIDENCED-BASED PRACTICES

Evidence-based practice... Research-based interventions...
Science-based services... Empirically-supported practices...

...Essentially mean the same thing: Programs or practices that are **proven** to be successful **through research** methodology and have produced **consistently positive patterns** of results.

The Institute of Medicine identifies EBPs as crucial in **closing the quality chasm**.

COMPONENTS OF EBP ADULT TX

Individual/Group Counseling

- Motivational Interviewing (MI)
- Cognitive behavioral therapy (CBT)
- Contingency Management (CM)
- Couples/Family Therapy

Pharmacotherapy

Self-help/Peer Support Groups

- 12 Step Recovery, AA/NA

Continuing Care/Long-Term Case Management

What is CBT?

SAMHSA Counselor's Manual

- Available in PDF form on the SAMHSA online store

Counselor's Treatment Manual

*Matrix Intensive Outpatient
Treatment for People With
Stimulant Use Disorders*



What is CBT and how is it used to treat substance use disorders?

- CBT is a form of “talk therapy” that is used to teach, encourage, and support individuals about how to reduce / stop their harmful drug use.
- CBT provides skills that are valuable in assisting people in gaining **initial** abstinence from drugs (or in reducing their drug use).
- CBT also provides skills to help people **sustain** abstinence (relapse prevention)

Important Concepts in CBT

In the early stages of CBT treatment, strategies **emphasize behavioral change.**

Strategies include:

- Planning time to **engage in non-drug related behavior**
- **Avoiding or leaving** a drug-use situation.

Important Concepts in CBT

CBT attempts to help patients/clients:

- Follow a **planned schedule** of low-risk activities
- Recognize drug use **(high-risk) situations** and avoid these situations
- Cope more effectively with a **range of problems** and problematic behaviors associated with using

Important concepts in CBT

As CBT treatment continues into later phases of recovery, more emphasis is given to the “cognitive” part of CBT. This includes:

- Teaching patients knowledge about substance use
- Teaching patients about **conditioning, triggers, and craving**
- Teaching patients cognitive skills (“**thought stopping**” and “**riding out the urge**”)
- Focusing on relapse prevention

Role of the Clinician in CBT

The Role of the CBT Clinician

CBT is very *active*. The CBT Clinician must strike a balance between being a **good listener** and understanding and **teaching new information** and skills

The role of the clinician in CBT

- The clinician is one of the most important sources of **positive reinforcement** for the patient during treatment.
- It is essential for the clinician to maintain a **non-judgemental** and non-critical stance.
- **Motivational interviewing skills** are extremely valuable in the delivery of CBT.

CBT Technique: Functional Analysis

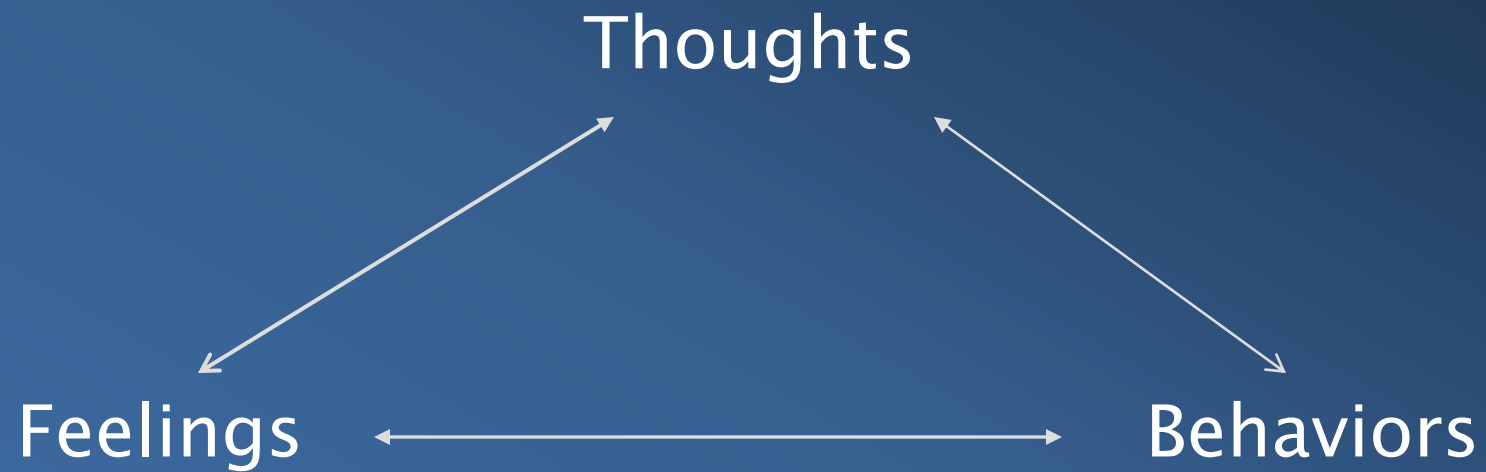
Functional Analysis

Initially used in treatment to identify thoughts, feelings and circumstances surrounding drug use:

- Assess the determinants (high risk situations) leading to use;
- Provides insights into the reasons for use.

Utilized later in treatment to identify situations which continue to be difficult for the individual.

Cognitive Triad



The 5 Ws (functional analysis)

The 5 Ws of a person's drug use (also called a functional analysis)

- When?
- Where?
- Why?
- With / from whom?
- What happened?

The 5 Ws

- People who become dependent on drugs do not use them at random. It is important to know:
- The time periods when the patient uses drugs
- The places where the patient uses and buys drugs
- The external cues and internal emotional states that can trigger drug craving (why)
- The people with whom the patient uses drugs or the people from whom she or he buys drugs
- The effects the patient receives from the drugs — the psychological and physical benefits (what happened)

Functional Analysis or High-Risk Situations Record

Antecedent Situation	Thoughts	Feelings and Sensations	Behavior	Consequences Positive/Negative
<p>Where was I?</p> <p>Who was with me?</p> <p>What was I doing?</p> <p>When did I first become aware of wanting to use?</p>	<p>What was I thinking?</p>	<p>How was I feeling?</p> <p>What signals did I get from my body?</p>	<p>What did I do?</p> <p>What did I use?</p> <p>How much did I use?</p> <p>What paraphernalia did I use?</p> <p>What did other people around me do at the time?</p>	<p>What happened after?</p> <p>How did I feel right after?</p> <p>How did other people react to my behavior?</p> <p>Any other consequences?</p>

CBT Techniques for Substance Use Disorders: Triggers and Craving

“Triggers” (conditioned cues)

- One of the most important purposes of the 5 Ws exercise is to learn about the people, places, things, times, and emotional states that have become associated with drug use for your patient.
- These are referred to as “triggers” (conditioned cues).

“Triggers” for drug use

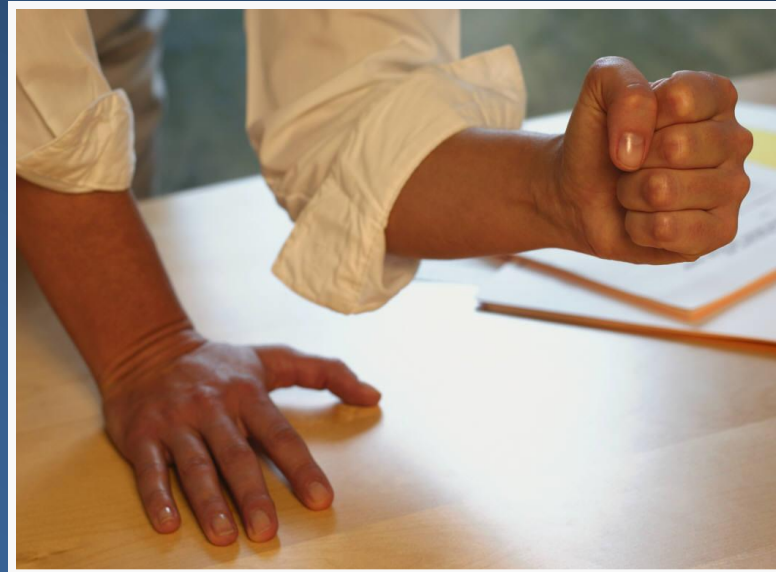
- A “trigger” is a “thing” or an event or a time period that has been associated with drug use in the past
- Triggers can include people, places, things, time periods, emotional states
- Triggers can stimulate thoughts of drug use and craving for the drug high

External triggers

- **People**: drug dealers, drug-using friends;
- **Places**: bars, parties, drug user's house, parts of town where drugs are used;
- **Things**: drugs, drug paraphernalia, money, alcohol, movies with drug use;
- **Time periods**: paydays, holidays, periods of idle time, after work, periods of stress.

Internal triggers

- Anxiety
- Anger
- Frustration
- Sexual arousal
- Excitement
- Boredom
- Fatigue
- Happiness



These are just examples; there are many more.

Trigger Process for Drug Use and Other Problematic Behaviors

Trigger → Thought → Craving → Use

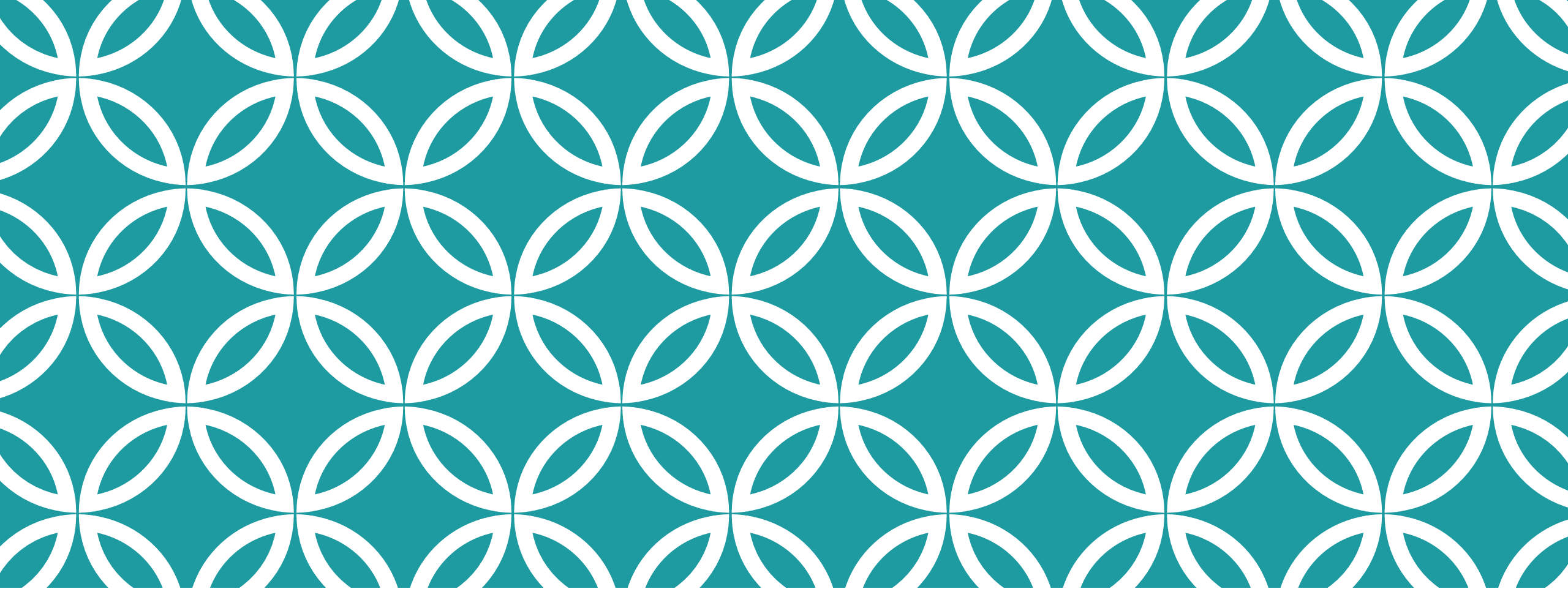
Trigger → Thought → Emotion → (Impulsive) Problematic Behavior

Relapse Prevention

- Relapse is not a random event
- The process of relapse follows predictable patterns
- Signs of impending relapse can be identified by staff members and clients

Relapse Prevention Plan: Key Components

- Events or situations that triggered relapse in the past
- Early warning signs experienced in the past
- Things that help when experiencing an early warning sign
- People who help me
- What I would like them to do
- People I would like to contact in an emergency



CONTINGENCY MANAGEMENT

Motivational Incentives

Motivational Incentives (i.e. Contingency Management) can help with:

- **Getting people into treatment**
- **Keeping people in treatment**
- **Treating them**

Motivational Incentives



- ▶ Enhance treatment and facilitate recovery
- ▶ Target specific behaviors included in a patient's treatment plan
- ▶ Celebrate an individual's success in changing targeted behavior

Motivational Incentives

- ▶ Used as an adjunct to other therapeutic clinical methods
- ▶ Can be used to motivate patients through stages of change to achieve an identified goal
- ▶ Are reinforcements to celebrate the changed behavior



► WHY MOTIVATIONAL INCENTIVES?

Motivational Incentive Programs

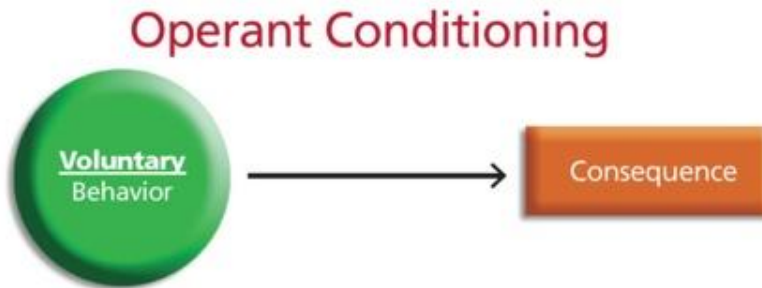
A Motivational Incentive program provides tangible **reinforcers** such as vouchers, goods, or privileges to patients for reaching concrete targeted behaviors.



▶ DEFINITIONS

Operant Conditioning

- Operant Conditioning refers to an association between a voluntary behavior and consequence



- The nature of the consequence will impact whether the behavior occurs again

Motivational Incentives are positive reinforcers (consequences) used to increase a desired behavior.

→ Example: An adolescent cleans his/her room and the consequence is verbal praise. If s/he is motivated by praise, the adolescent may be more likely to clean his/her room in the future.

▶ DEFINITIONS

Incentives (Contingencies)

Two types used to shape and change behavior in the early stages of change:

Reinforcement

Used to increase a specific behavior

Punishment

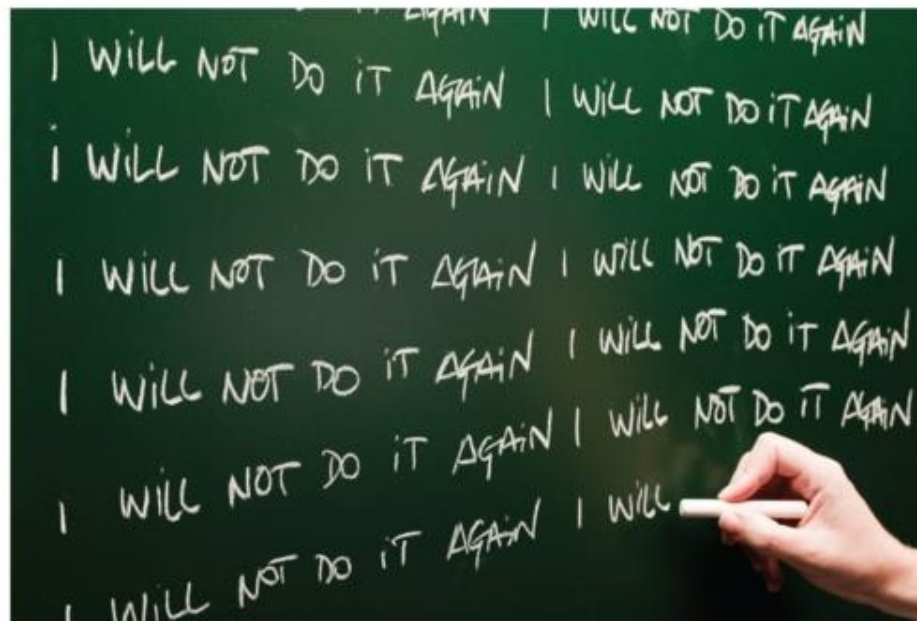
Used to decrease a specific behavior

► DEFINITIONS

Punishment

- Used to decrease a specific behavior
- Punishment involves the presentation of some kind of aversive stimuli when the undesired behavior occurs

This course does not address punishment.



→ **What are some examples of Reinforcement? (↑)**

→ **What are some examples of Punishment? (↓)**

► DEFINITIONS

Reinforcements

Reinforcement is used to **increase** the occurrence of a **desired** behavior

- **Positive reinforcement** involves presentation of a pleasant stimuli after a desired behavior occurs
- **Negative reinforcement** involves the removal of an aversive stimuli after a desired behavior has occurred

**GOAL =
INCREASE
BEHAVIOR**



▶ DEFINITIONS

Positive Reinforcement

Positive reinforcement involves presentation of a pleasant stimuli after a desired behavior occurs.

EXAMPLE:

You go to work every day, perform expected duties and receive a paycheck at regular intervals.



► DEFINITIONS

Negative Reinforcement

Negative reinforcement involves the removal of an aversive stimuli after a desired behavior has occurred.

EXAMPLE:

A parent repeatedly reprimands the adolescent for not cleaning his bedroom. When the adolescent cleans the room, the reprimands cease.



► DEFINITIONS

**Motivational
Incentives**
=
**Contingency
Management**



▶ DEFINITIONS

Rewards

- Mark an accomplishment or milestone worthy of celebration
- Acknowledge the achievement of larger goals or accomplishments
- Typically rely on patient's *internal* motivation for success

EXAMPLE:

In a treatment setting, a patient receives recognition for maintaining abstinence for one month.



▶ DEFINITIONS

Reinforcement/Reinforcers

- Reinforcement strategies increase the occurrence of a specific, desired behavior by breaking a larger goal down into smaller “Baby Steps” and reinforcing each of the steps as it occurs.
- Reinforcers are given at a high frequency for small, manageable instances of behavior change with the intent to make the reinforcers easy to earn.

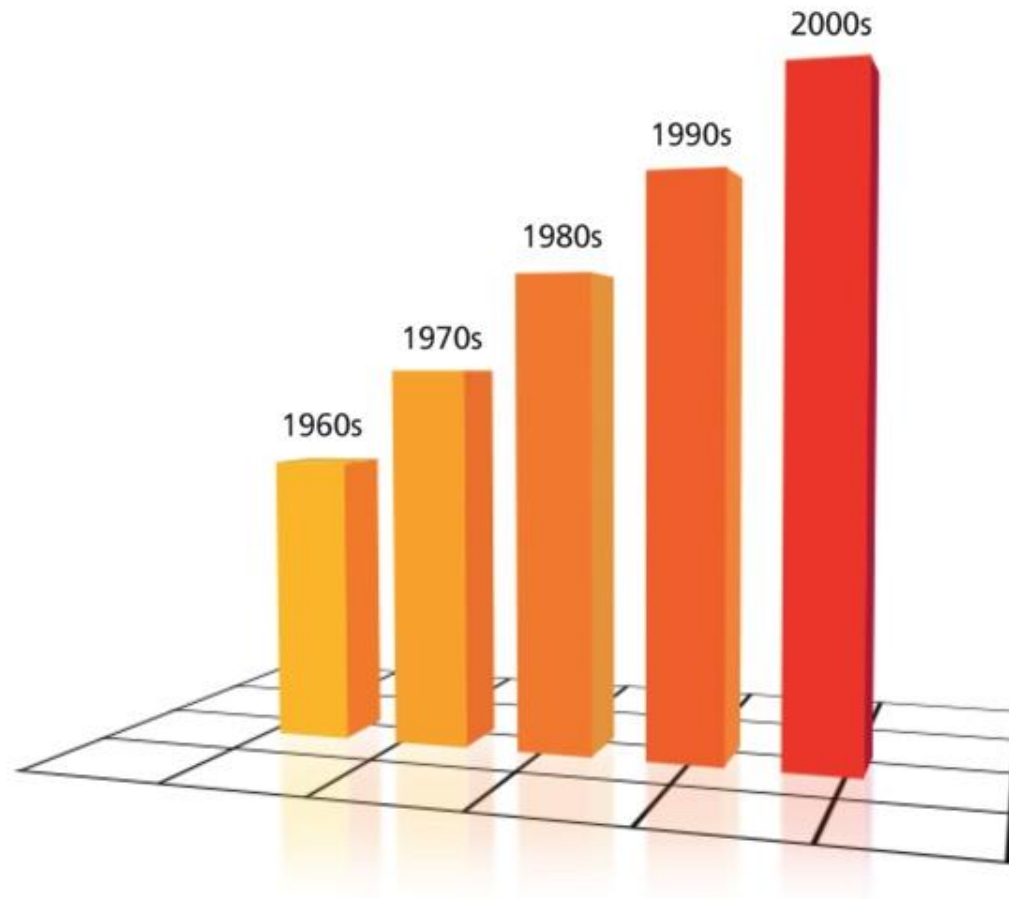


EXAMPLE:

In a treatment setting a patient receives an incentive for attending each group session. This strategy serves as a baby step to encourage a patient to attain a larger goal of completing a course of treatment.

▶ HISTORY & RESEARCH

Decades of Evidence



▶ HISTORY & RESEARCH

1960s

- Following B.F. Skinner, clinicians and researchers applied Operant Conditioning principles using *token economies* to treat persons with major mental health disorders (e.g., schizophrenia)
- Operant Conditioning principles were then used with patients in treatment for substance use disorders
- Drug use is maintained, in part, by the positively reinforcing effects of the drug itself
- Need to change the reinforcement structure to reinforce abstinence and other behaviors that compete with drug use



Kazdin & Bootzin, 1972; Skinner, 1953

▶ HISTORY & RESEARCH

1970s

- Drs. Cohen, Liebson, and Bigelow studied reinforcement principles with patients being treated for alcohol use disorders
- Dr. Maxine Stitzer studied using reinforcers with patients being treated with methadone for opioid dependence
 - Reinforcers were earned for treatment attendance or drug-free urine samples
 - The use of reinforcers improved retention, attendance, and abstinence

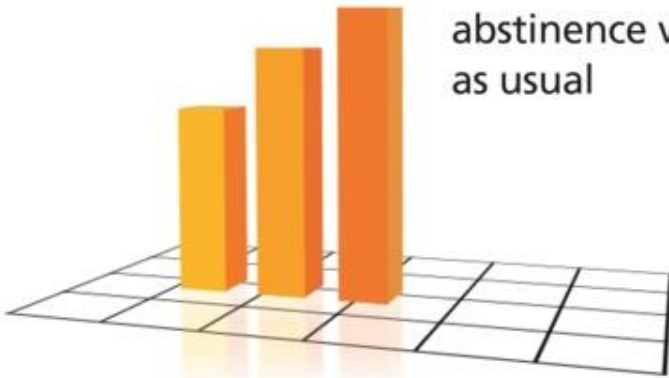


Bigelow & Silverman, 1999; Cohen, Liebson, Faillace, & Allen, 1971; Stitzer, Iguchi, Kidorf, & Bigelow, 1993

▶ HISTORY & RESEARCH

1980s

- Dr. Stephen Higgins began studying reinforcement principles with patients being treated for cocaine dependence
- Patients earned vouchers for drug-free urine screens
 - For example, in one study, 75% of the patients who received incentives plus treatment as usual were retained in the 6-month study vs. only 40% of those who received only treatment as usual
 - And, 55% of patients who received incentives plus treatment as usual achieved at least 10 weeks of continuous cocaine abstinence vs. 15% of those who received only treatment as usual



Higgins et al., 1994

▶ HISTORY & RESEARCH

1990s

- Dr. Ken Silverman conducted further research with patients in inner city treatment settings and looked at duration of incentive programs and incentive magnitude
- Among patients dependent on opioids who were stable on methadone but continued to use cocaine, adding voucher incentives to treatment as usual increased abstinence from cocaine
 - A one-year-long, voucher-based incentive program helped patients maintain high levels of abstinence from cocaine and opioids
 - Silverman also began studying the effects of differing incentive values

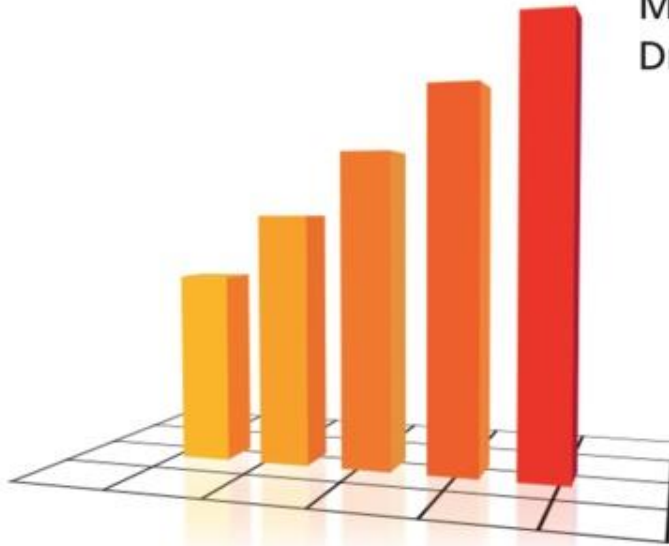


Silverman et al., 1996;
Silverman, Chutuape, Bigelow, & Stitzer, 1999

▶ HISTORY & RESEARCH

2000s

- Dr. Nancy Petry designed the Fishbowl Method of delivering incentives
- Petry demonstrated the Fishbowl Method could significantly reduce the cost of incentive programs without losing effectiveness
- Based on Petry's work, NIDA's CTN began a large-scale study called MIEDAR (Motivational Incentives to Enhance Drug Abuse Recovery)



▶ HISTORY & RESEARCH

Incentives Improve Retention of Patients Who Use Stimulants

MIEDAR Study

- 400 patients enrolled in NIDA's CTN Study
- Patients who reported cocaine, methamphetamine or amphetamine use were enrolled in one of two treatment conditions
 - Treatment as usual plus abstinence-based incentives
 - Treatment as usual (no incentives)
- Patients receiving incentives and treatment as usual attended more counseling sessions and had longer periods of abstinence than patients in the treatment as usual condition



Petry et al., 2005

► HISTORY & RESEARCH

Lower-Cost Incentives Improve Stimulant Abstinence for Patients in Methadone Maintenance Treatment

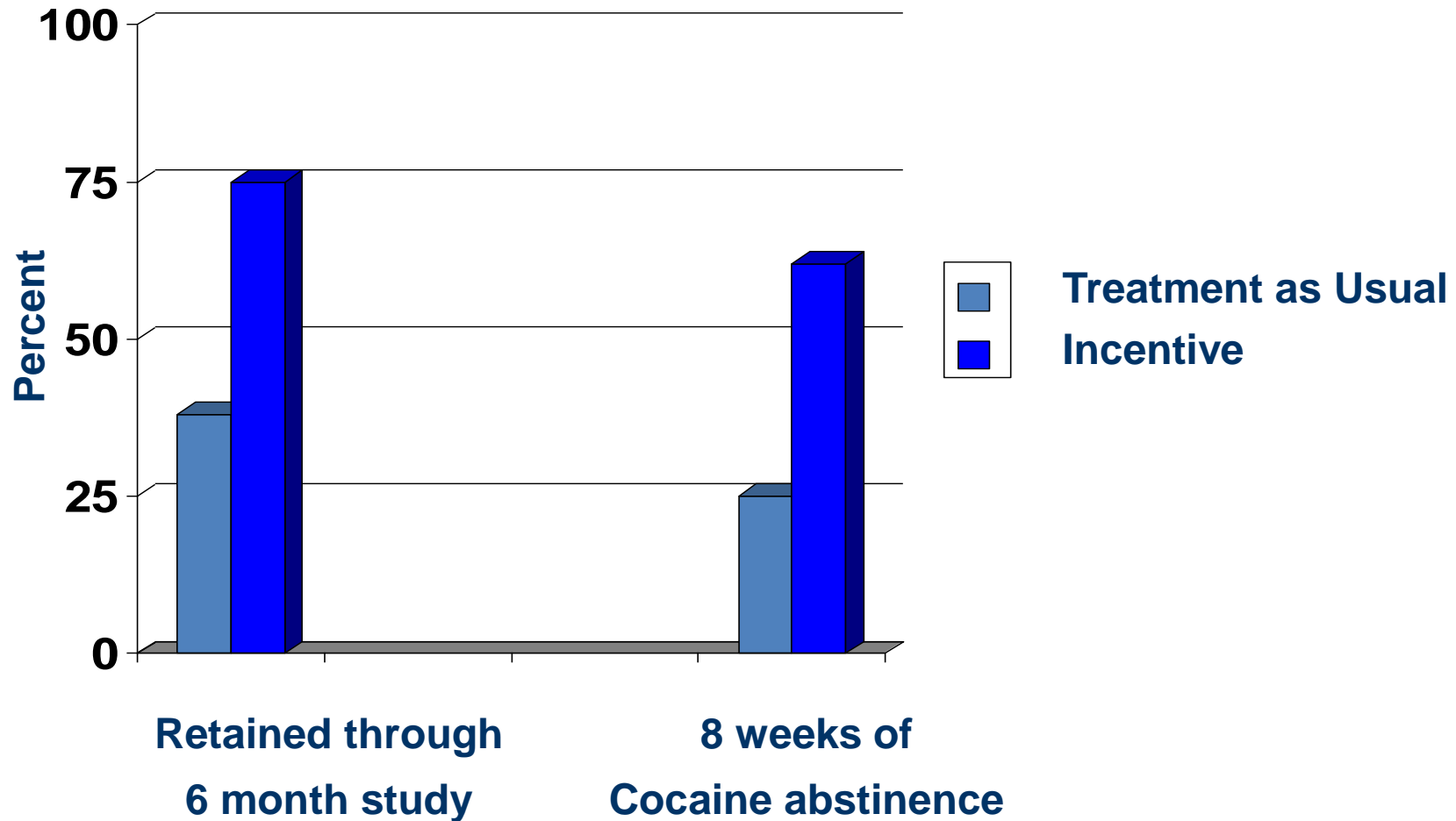
MIEDAR Study

- Patients in methadone maintenance treatment reduced their alcohol and stimulant use when given lower-cost incentives
- Patients receiving incentives submitted more stimulant- and alcohol-negative samples than patients who only received treatment as usual
- Patients in the incentive group received an average of \$120 in incentives/per participant over 12 weeks

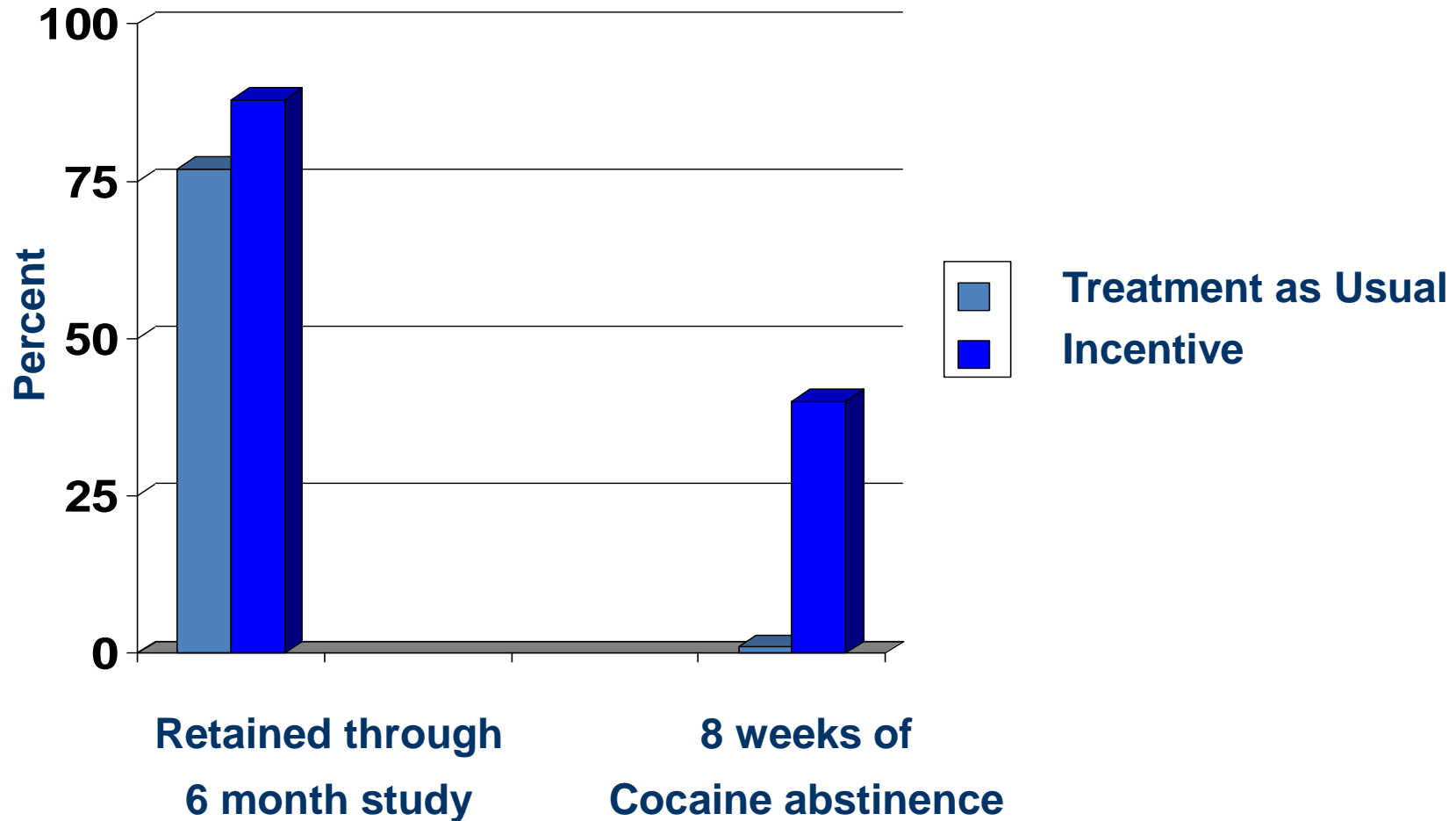


Peirce et al., 2006

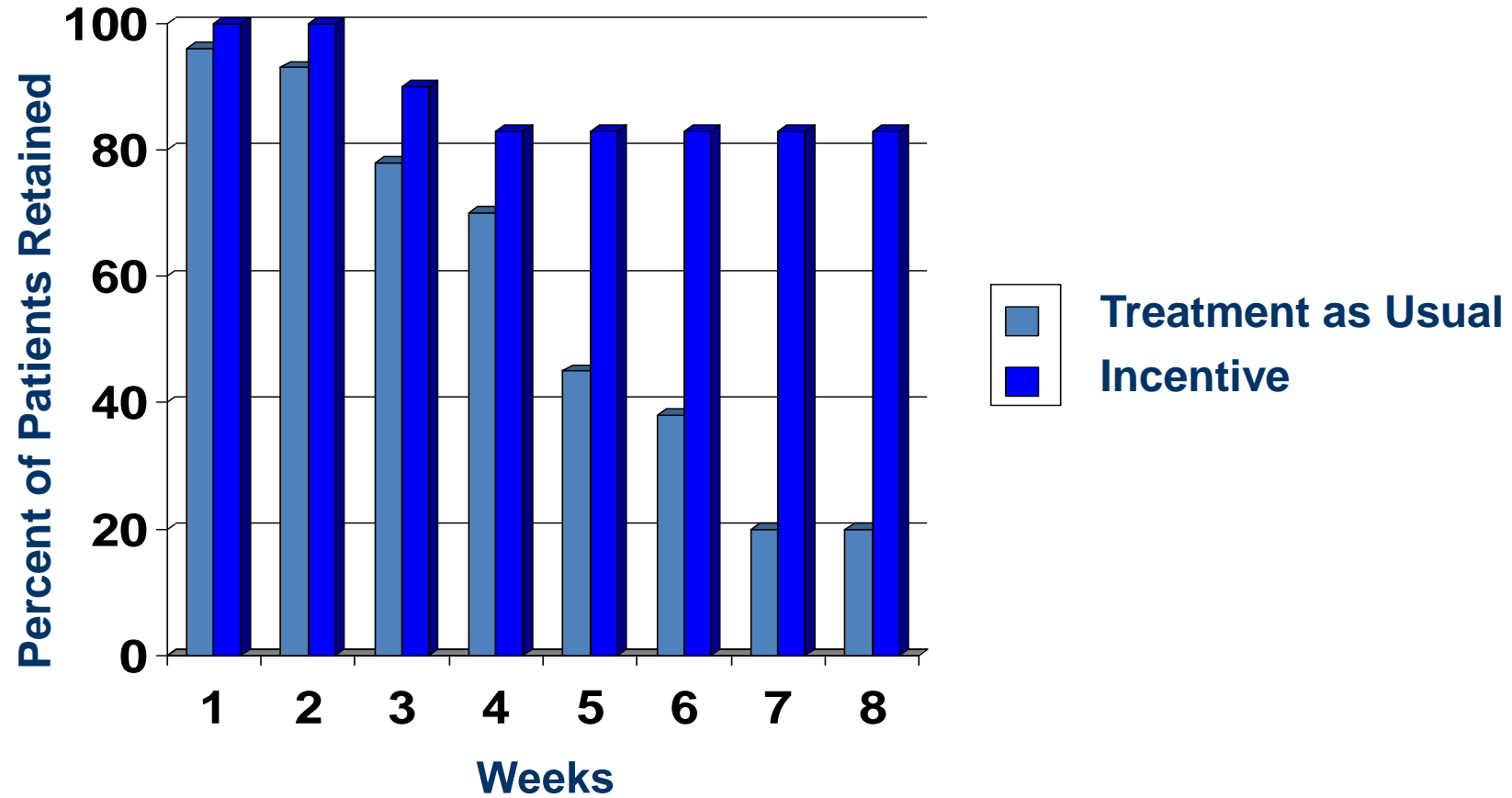
Treatment of Cocaine Dependence



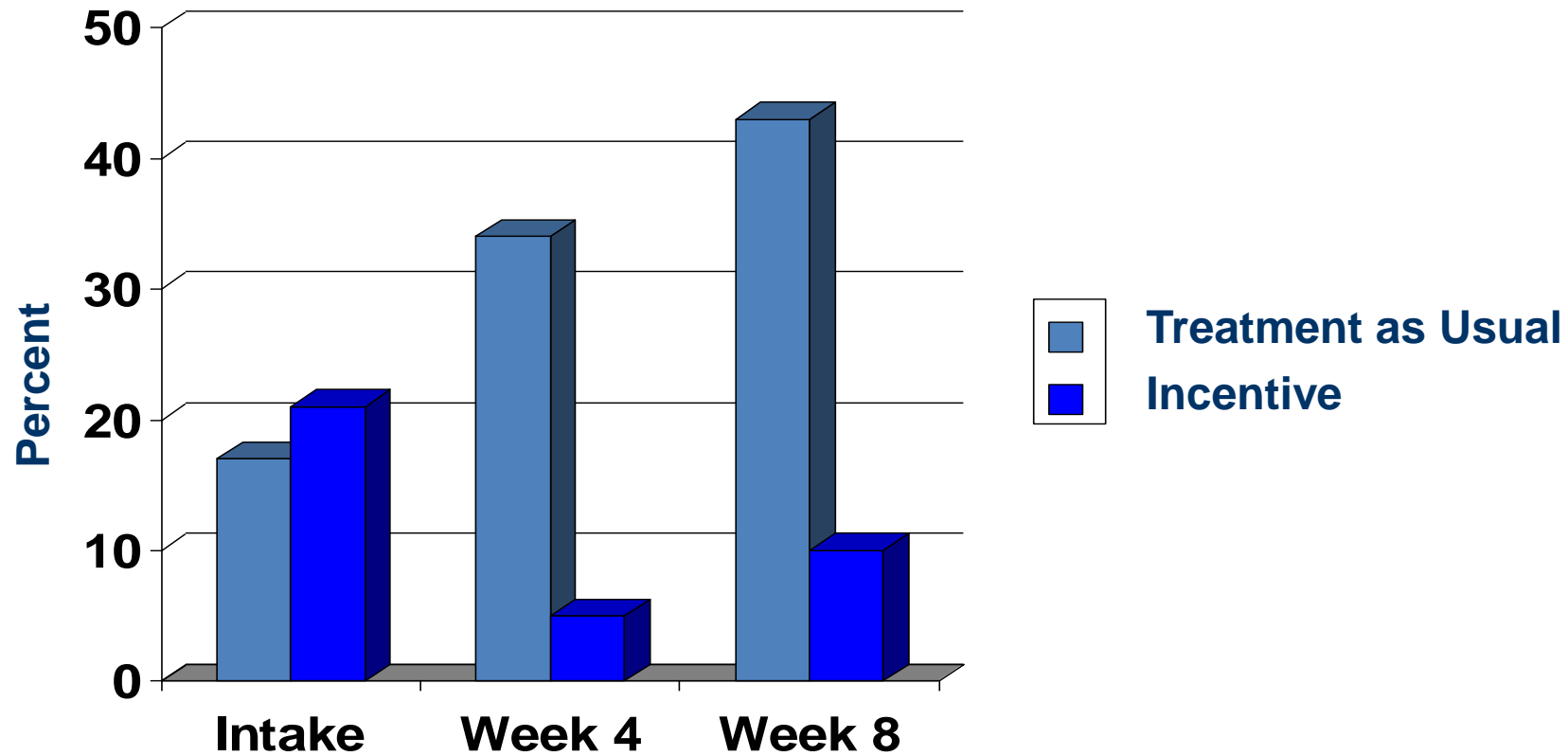
Treatment of Cocaine Use In Methadone Patients



Retention

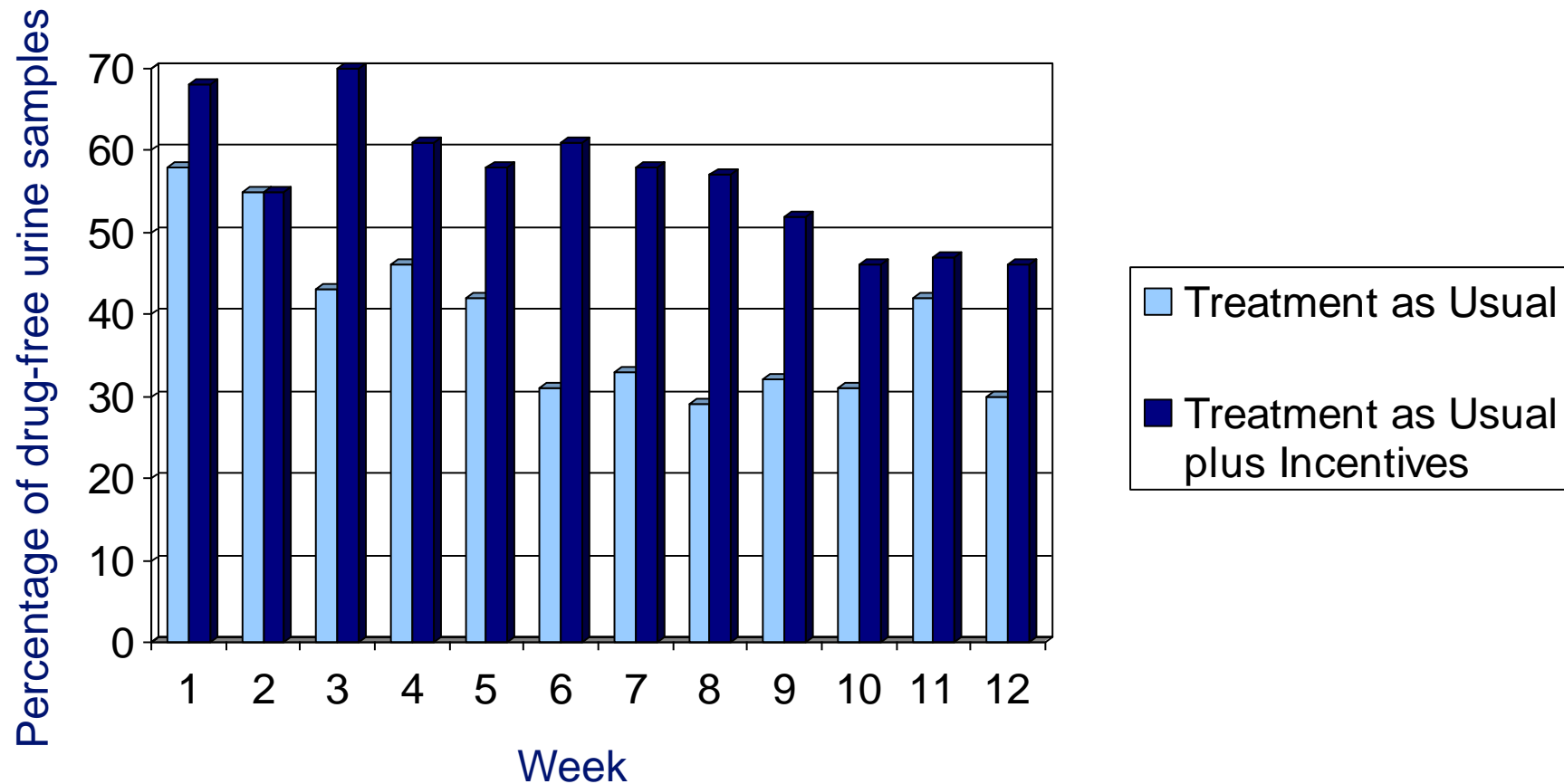


Percent Positive for Any Illicit Drug



Motivational Incentives for Enhanced Drug Abuse Recovery

Incentives Improve Outcomes in Methamphetamine Users

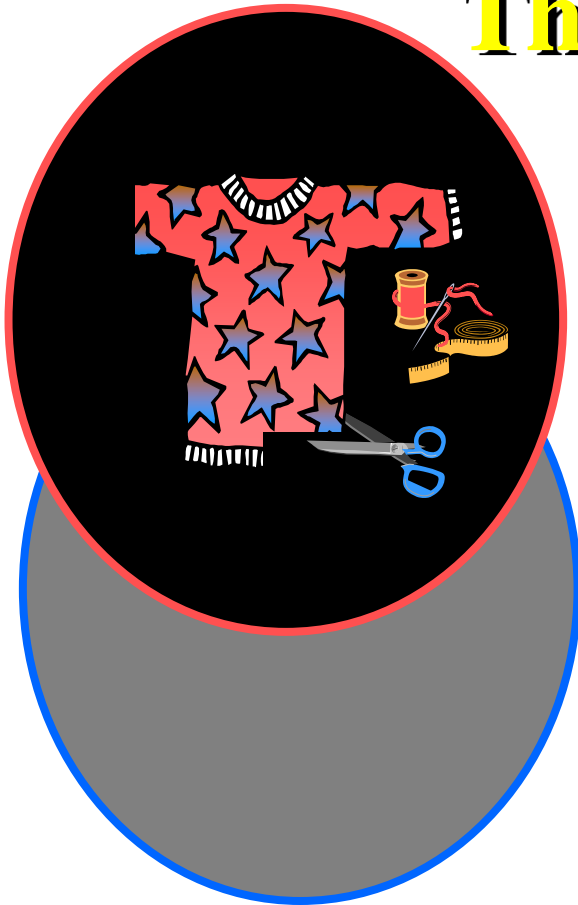


EFFECTIVENESS: TREATMENT OUTCOMES

Goal of treatment is to **return to productive functioning:**

- Reduced drug use/abstinence
- Reduced crime
- Increased productivity (employment)
- Reduced interpersonal conflicts

INDIVIDUALIZED TREATMENT IS KEY



**There Is No “*One Size Fits All*”
Treatment For Addiction**

**Strategies
Should Be Tailored to
An Individual’s Needs**