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 Impact of Drug Treatment

Texas Corrections Association
 June 10, 2014 Sugar Land, TX

Treating Addicted Offenders: An Examination of Medication-Assisted Treatment and Mental Health Problems

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Disclosures

Knight, Gray, & Doherty: None

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Topics Covered

- 1) Basic facts about MAT
- 2) CJDATS client-level study
- 3) CJDATS implementation study
- 4) Observations from the field

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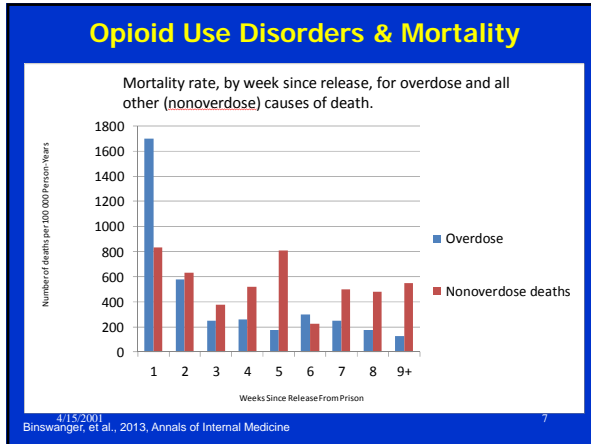
Opioid Use Disorders & the CJ System

- 20-23% of U.S. jail and prison inmates report past use of opioids
- ~5-15% of U.S. arrestees test positive for opioid use
- Among jail inmates
 - ✓ 12% report regular use of opioids
 - ✓ 8% report opioid use in the month prior to their offense
 - ✓ 4% report opioid use at the time of their offense
- 57% of injection drug users have been incarcerated 5+ times
- Prevalence of mental health diagnoses increases with longer duration of opioid use (e.g., depression may lead to more opioid use and opioid use may cause or exacerbate depression)

Sources:
 BJS, *Opioid Use and Dependence, State and Federal Prisoners, 2005*, NCJ 213930, October 2006.
 BJS, *Substance Dependence, Abuse, and Treatment of Jail Inmates, 2004*, NCJ 209988, July 2005.
 ONDCP, *Arrestee Drug Abuse Monitoring Program II 2012 Annual Report*, May 2013.
 American Pain Society, "High-dose opioid treatment associated with mental health and medical comorbidities." ScienceDaily, 27 November 2012.

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What is Medication-Assisted Treatment (MAT)?

- MAT is the use of medications in combination with counseling and behavioral therapies to provide a whole-patient approach to the treatment of substance use disorders.

- Research shows that when treating substance use disorders, a combination of medication and behavioral therapies is most successful.

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Problem

- Persistent skepticism exists within the criminal justice (CJ) system – including among CJ partner agencies – about the feasibility and impact of promoting MAT.
- 4 Myths

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MAT Myth Busters: Myth #1

“Medication is not a part of treatment.”

- Medication can be an effective part of treatment.
- Medication is used in the **treatment of many diseases**, including addiction.
- Medical decisions must be made by trained and certified medical providers.
- Decisions about using medications are based on an objective assessment of the individual client's needs.

MAT Myth Busters: Myth #2

“Medications are drugs, too.”

- **Drugs are used to get high, but medications are used to get better.**
- Millions of Americans use medications (e.g., nicotine patches) to quit smoking, and this practice is widely encouraged by addiction professionals.

Evidence

- Substantial evidence suggests Medication-Assisted Treatment (MAT) helps patients reduce opioid and alcohol use (Amato et al., 2005; Johnson, 2008), criminal behavior and arrest (Schwartz et al., 2009), and HIV risk behavior (Metzger et al., 1993).
- Treatment of opioid dependence is important to reduce mental health problems (World Health Organization, 2005).

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MAT Myth Busters: Myth #3

"MAT is not effective."

- MAT medications had to demonstrate the **same level of effectiveness** as all other types of medications for other diseases to get FDA approval.
- We tend to have a **biased perception**:
 - ✓ Patients who improve, leave and are forgotten
 - ✓ Patients who do *not* improve return frequently and are remembered
 - Leads us to think that most patients do not improve
 - ...contrary to scientific data.

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The Clinician's Illusion After Cohen & Cohen Arch Gen Psych 1984

MAT Myth Busters: Myth #4

"Clients who haven't used drugs recently don't need MAT."

More than half of inmates will relapse within **one month** of release.

Reasons include:

- peer pressure
- familial pressure
- tensions of daily life
- few job opportunities
- lack of safe housing
- isolation
- disillusionment & apathy
- the stress of complying with correctional supervision

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How Can We *Treat* Opioid Addiction?



The person must learn new ways of coping and Impact on brain must be addressed

How Do Opioid Medications Work?

There are **three types** of medications that can **block** the "high":

- **Agonists**
produce opioid effects
- **Partial Agonists**
produce moderate opioid effects
- **Antagonists**
block opioid effects

Medication Options?

<p><u>For Opiate Addiction:</u></p> <ul style="list-style-type: none">•Methadone•Buprenorphine•<u>Naltrexone</u>	<p><u>For Alcohol Addiction:</u></p> <ul style="list-style-type: none">•Acamprosate•Disulfiram•<u>Naltrexone</u>
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Formulations/Trade Names

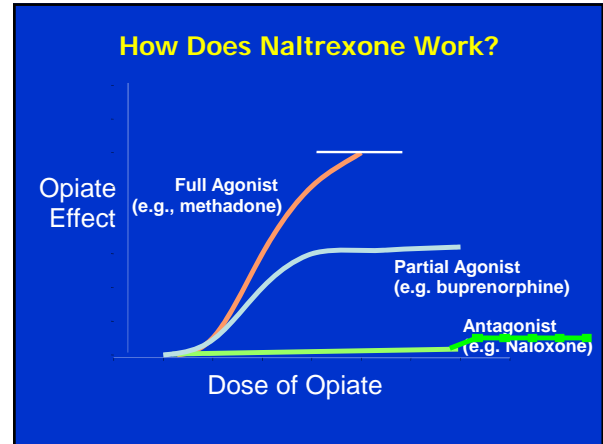
- Oral tablets (Depade® & ReVia®)
- Injectable extended-release naltrexone (Vivitrol®)

Naltrexone: Long-acting Injectable Formulation

Addictive Properties: Not addictive and no withdrawal symptoms.

Cost: \$866.46 per month, which is around \$28.88 per day (injectors fee not included).

Third-Party Payer Acceptance: Approximately 90% of patients thus far have received insurance coverage with no restrictions. In addition, extended-release naltrexone now has a J code for payors (reimbursement code used to report injectable drugs that cannot be self-administered, e.g., chemotherapy).

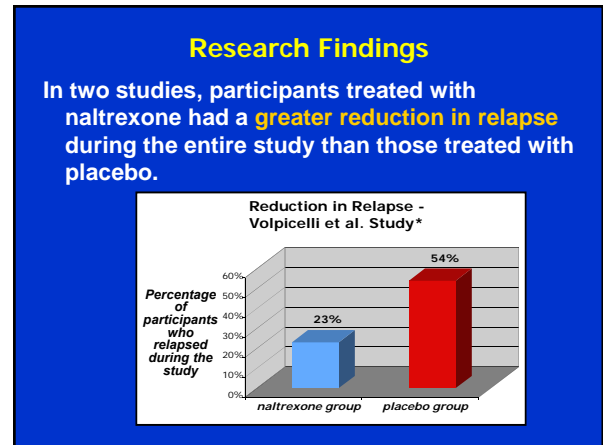


How Are Antagonists Different?

- Blocks opioid receptors
- Reinforcing “reward” effects from dopamine are reduced

● = naltrexone

● = opioids



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Medication-Assisted Treatment in Community Correctional Environments (MATICCE)

CJ-DATS is funded by NIDA in collaboration with SAMHSA and BJA.

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CJDATS Client-level Study

- Aim: To examine MAT feasibility among parolees and probationers in outpatient drug treatment
 - ✓ identify MAT clinic visit predictors based on patient self-report the day prior to the visit.
- Sub-Aim: Assess MAT impact
 - ✓ relationship of Violence and Victimization on patient participation in MAT.

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Study Design

- 114 “MAT eligible” parolees and probationers participating in a community-based treatment program in the greater St. Louis area.
- As part of the study, participants call into an interactive voice response (IVR) survey system.
 - ✓ daily calls over a 2-week period.
 - ✓ questions about previous day events, including stressors, psychological functioning, substance use, and problems attending treatment

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Data Collection

- Baseline survey
 - ✓ after client is referred to MAT
 - ✓ before scheduled MAT clinic visit
- IVR training conducted with clients at baseline.
 - ✓ each participant is expected to make daily calls that overlap the period before and after MAT initiation
- Follow-up survey conducted as face-to-face interview with each participant after 90 days.

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Measures: IVR Daily Interview

- Interactive Voice Response (IVR) Technology
 - affordable and easy to use automated survey technology
 - uses recorded voice prompts to ask questions that clients answer by using the touchtone keypad on the telephone or by speaking open ended responses.
- Software: SmartQ by TeleSage (www.telesage.com/SmartQ.html)

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Measures: IVR Daily Interview

For the next several questions, I'm going to ask you about things that you've done since this time yesterday. Answer each question using a scale of 0 to 3 where:

0 = no,
 1 = yes, but yesterday only
 2 = yes, but today only, or
 3 = yes, both yesterday & today.

*Did you use alcohol to cope with stress?
 Did you use illegal drugs to cope with stress?
 Did you use prescription drugs not prescribed for you to cope with stress?*

*Did you have any stress about transportation?
 Did you have any stress about work or unemployment?
 Did you have any stress about money problems?
 Did you have any stress about your health?*

Today, please rate how strong is your craving to drink or use drugs?

0 = not at all
 1 = slightly
 2 = moderately
 3 = very
 4 = extremely

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Study Sample (n = 114) Demographic Characteristics

- Age
 - ✓ M = 36
 - ✓ Range = 20 to 66 years
- Race/ethnicity
 - ✓ 77% African American/Black
 - ✓ 19% Caucasian/White
- Relationship status
 - ✓ 32% living with a spouse/partner
- Children
 - ✓ 26% have children that live with them
- Education
 - ✓ 29% completed high school, 36% a GED

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Study Sample Service Use and System Contact

Criminal Justice History	Treatment History
# lifetime arrests M = 17.9 (SD = 19.6) Range = 1 - 150	# prior substance abuse treatments M = 4.0 (SD = 5.3) Range = 0 - 30
# arrests while using/seeking drugs M = 13.3 (SD = 18.6) Range = 0 - 150	# mental health hospitalizations M = 0.3 (SD = 1.3) Range = 0 - 10
Age (in years) at first arrest M = 17.0 (SD = 3.6) Range = 9 - 32	2% one time 7% 2 or more times
# times in jail, prison, &/or juvenile lock-up M = 11.1 (SD = 12.0) Range = 1 - 60	# physical health hospitalizations M = 2.9 (SD = 9.5) Range 0 - 99
	20% one time 45% 2 or more times

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Participant Characteristics IVR Responses From Call Prior to Scheduled MAT Clinic Visit

Characteristic	n (%)
Receiving medication for alcohol/drug use	58 (51%)
Used alcohol to cope with stress	7 (8%)
Used illegal drugs to cope with stress	37 (41%)
Used prescription medications for non-medical purposes	19 (17%)
Any illegal activities (other than drug use)	9 (8%)
Kept scheduled MAT clinic appointment	76 (67%)

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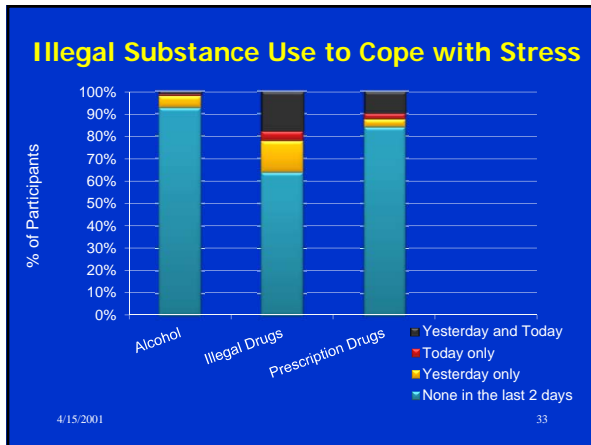
Keeping Scheduled MAT Clinic Visit By Use of Illegal Drugs To Cope with Stress

"Did you use illegal drugs because of stress?"

	Did not use illegal drugs because of stress n (%)	Used illegal drugs because of stress n (%)
Missed scheduled MAT Clinic visit	18 (16%)	20 (18%)
Kept scheduled MAT Clinic Visit	55 (48%)	21 (18%)

$\chi^2 (1, n = 114) = 6.87, p < 0.01$

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Keeping Scheduled MAT Clinic Visit By Stress about Transportation

"Did you have any stress about transportation?"

	Not stressed about transportation n (%)	Reported stress about transportation n (%)
Missed scheduled MAT Clinic visit	15 (13%)	23 (20%)
Kept scheduled MAT Clinic Visit	47 (41%)	29 (25%)

$\chi^2 (1, n = 114) = 5.11, p < 0.05$

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Preliminary Findings Associations between Previous Psychiatric Hospitalizations and Keeping Scheduled MAT Clinic Visit

	No previous psychiatric hospitalizations n (%)	One or more psychiatric hospitalizations n (%)
Missed scheduled MAT Clinic visit	35 (31%)	3 (3%)
Kept scheduled MAT Clinic Visit	69 (61%)	7 (6%)

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Correlates of Keeping MAT Appointment (n=114)

Correlates of Appointment Kept	r	Source
+ Decision-making	0.19*	From TCU CEST
Self-Esteem	0.01	From TCU CEST
Anxiety	0.01	From TCU CEST
Personal Irresponsibility	-0.23*	From CTS
Using illegal drugs to cope with stress	-0.25**	From IVR
Stress about transportation	-0.21*	From IVR

$*p < 0.05, **p < 0.01, ***p < 0.001$

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Type of MAT Prescription (n=114) by Psychological Functioning

Correlates of receiving Vivitrol®	r	Source
Self-esteem	0.13	From TCU CEST
Anxiety	0.01	From TCU CEST
Expectancy to refrain from drug use - next 90 days	0.26**	From TCU CEST
Percentage of daily calls to IVR survey	0.34***	From IVR
Craving for Alcohol, Illegal or Rx Drugs	-0.19*	From IVR
Using Illegal drugs because of stress	-0.42***	From IVR

*p < 0.05, **p < 0.01, ***p < 0.001

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Binomial Logistic Regression Model for 90-day Treatment Status Among opiate-involved participants (n=85)

Predictors	Wald	SE	Exp (B)	95% Confidence Interval of Exp (B)	χ²
MAT group (Vivitrol® vs. other)	13.85***	1.16	74.53	7.70, 721.84	48.55***
Any mental health symptoms (yes, no)	8.35**	0.81	10.38	2.12, 50.75	
Any prior drug treatment (yes, no)	6.33*	1.26	0.04	0.004, 0.50	
Age at 1 st arrest (in years)	1.34	0.11	1.14	.92, 1.41	

Note: Race/ethnicity, age, living with a spouse or partner, and education level included as covariates in the model.
 *p < 0.05, ** p < 0.01, *** p < 0.001

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- ### Client-study Conclusions
- Use of illegal drugs to cope with stress prior to the MAT clinic visit was associated with scheduled MAT clinic visit "no-shows."
 - Stress about transportation also was a significant predictor.
 - There was a high rate of service use for co-morbid mental health and health problems, an area of continued focus for this study.
 - Continue to measure MAT participants treatment satisfaction, barriers to MAT, and support for MAT.
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- ### Next Step
- Address resistance to including MAT as a part of addiction treatment.
 - Extend and expand the evidence base pertaining to the use of MAT with CJ populations.

Willingness to Consider MAT

	Jail (n=18)	Prison (n=12)	P/P (n=12)	Drug Court (n=8)
% open to beginning/expanding Methadone	55.6	83.3	66.7	62.5
% open to beginning/expanding Buprenorphine	55.6	58.3	83.3	75.0
% open to beginning/expanding Naltrexone	50.0	58.3	83.3	75.0

High feasibility

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Cited Barriers to Use of MAT

	Jail (n=18)	Prison (n=12)	P/P (n=12)	Drug Court (n=8)
State/local regulations prohibiting MAT	X			
Security concerns	X	X		
MAT offered by community Tx programs	X	X	X	
Agency favors drug-free Tx over MAT		X	X	
Lack of qualified staff			X	X
Liability concerns				X
Cost/reimbursement concerns				X

Barriers that could be addressed in an implementation study

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Part 1: Staff Training

- Delivered via professional treatment networks (e.g., Addiction Technology Transfer Centers; ATTCs)
- KPI = Knowledge, Perceptions and Information
 - Based on Blending materials, TIPs, existing ATTC resources, CJDATS workgroup input
- 20 sites
 - Mainly probation & parole officers
 - Local treatment providers welcome to attend

Part 2: Organizational Linkage Intervention (OLI)

- Adapted 3 components associated with effective organizational integration:
 - 1) Working group of reps from key organizations
 - 2) Strategic planning process
 - 3) Boundary spanner [Connections Coordinator]
- Research Centers provide training and TA around strategic planning

Findings

- Evidence of increased favorable perceptions of MAT from baseline to end of intervention for experimental group:
 - ✓ MAT should be available as a lifetime tx
 - ✓ MAT reduces addicts' criminal activities
 - ✓ MAT reduces addicts' risk of acquiring/transmitting HIV
 - ✓ MAT maintenance reduces addicts' risk of dying
 - ✓ MAT reduces addicts' chances of using illicit opioids
- Treatment providers valued the opportunity to explain to Probation what they actually do.
 - Many felt that the linkage with CJ helped clarify the treatment process and helped remove many misconceptions about treatment.
- Pace of change – given past history, developing new interagency relationships may take longer than 12 months (length of intervention).
 - The linkage approach focused on system-wide change, which tends to be more difficult and take longer to implement than more narrowly focused change attempts.

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Observations From the Field

MAT helps improve treatment outcomes:
Engagement, retention in treatment, and reduced recidivism

Outcomes

- Engagement rates (kept 1st appointment) are increased by at least 25%
- Retention (successful completion of treatment) is improved by 15%
- Recidivism rates decreased (13%)

Comprehensive Service Delivery Model

St. Louis Recidivism Reduction Project includes:

- Pre-release Vivitrol to alcohol or opioid dependent persons
- Pre-release case management to identify service/resource needs upon reentry
- Post-release MAT available in community treatment
- Co-occurring disorder counseling and psychiatric treatment readily provided
- Employment readiness preparation provided
- Comprehensive case management provided

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That's All Folks!



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