Financial Factors Associated with Implementation of Medications for Addiction Treatment (MAT) for Alcohol Use Disorders

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Introduction

Opportunities to effectively treat alcohol use disorders (AUDs) are enhanced by the availability of pharmacological treatments. Although research has examined the organizational correlates of medication adoption (i.e., any use), less is known about the factors associated with implementation of medications to treat addiction (MAT). Implementation refers to the percentage of patients who actually receive medications. In this study, we defined MAT implementation as the total percentage of patients with AUDs who received oral tablet naltrexone, acamprosate, or long-acting depot naltrexone.

Financial factors are often described as barriers to the delivery of pharmacotherapies. Treatment organizations often juggle multiple relationships for financial resources; they typically receive funding from a range of sources, including the Federal block grant, Medicaid, state and local government allocations, criminal justice contracts, and private insurance. Each funders has its own priorities, which may or may not be supportive of MAT. Our prior study of MAT implementation for opioid use disorders found that Medicaid funding was positively associated with implementation, but criminal justice funding was negatively associated with MAT implementation.

Research Questions

1.Is greater reliance on certain types of financial resources associated with greater MAT implementation for patients with AUDs?
2.Are these financial factors associated with MAT implementation after controlling for organizational structure and workforce characteristics?

Methods

Sample: Community treatment programs (CTPs) affiliated with NIDA's Clinical Trials Network (CTN) in 2008-2009
•n = 238 eligible CTPs (organizational units with autonomous administrator)
•n = 198 CTPs participated (85% response rate) in face-to-face interviews
•Analytic sample = 154 CTPs
- CTPs that exclusively dispense methadone (n = 42) were excluded
- 2 CTPs with missing data on MAT implementation were excluded

Dependent Variable: Sum of percentage of patients with AUDs receiving tablet naltrexone, acamprosate, or depot naltrexone

Financial Factors: % of past-year revenues from 1) Medicaid, 2) Private insurance, 3) Criminal justice, 4) Federal block grant, 5) County or city government, and 6) State government (excluding Federal block grant & criminal justice)

Organizational Structure: Location in hospital; Profit status; and Only offering outpatient treatment; Accreditation by Joint Commission or CARF

Workforce Characteristics: Number of physicians; Percentage of counselors with master's degree or greater; and Percentage of counselors in recovery

Statistical Analyses: Multiple imputation ("ice") to address missing data on correlates, then negative binomial regression for modeling. The "cluster" command accounted for nesting of CTPs within 71 organizations (i.e., robust standard errors).

Results

Descriptive statistics appear in Table 1 (below). The average implementation of MAT was 5.1% of patients with AUDs (SD = 14.1). This limited level of implementation was influenced by 70.1% of CTPs reporting no implementation of tablet naltrexone, acamprosate, or depot naltrexone for AUDs. In the subset of 46 CTPs with any implementation, the average implementation of MAT was 16.9% (SD = 21.7) of patients with AUDs.

Table 1: Descriptive Characteristics

	Mean (SD) or %
MAT implementation	5.1 (14.1)
Financial Factors (past-year)	
% revenue from Medicaid	18.9 (25.0)
% revenues from private insurance	12.7 (22.1)
% revenues from criminal justice	4.2 (13.9)
% revenues from Federal block grant	11.6 (22.7)
% revenues from state government	22.8 (31.9)
% revenues from county government	9.4 (18.2)
Organizational Structure	
Hospital-based	11.8%
For-profit	8.4%
Outpatient-only treatment	51.0%
Workforce Characteristics	
Number of physicians on staff	1.0 (1.4)
% counselors with master's degree	46.6 (35.9)
% counselors in recovery	39.2 (33.8)

Bivariate models of MAT implementation identified four financial factors and two workforce characteristics with *p*-values <.10 (two-tailed):
•% revenue from Medicaid (*p*=.07)
•% revenue from private insurance (*p*<.01)
•% revenue from the Federal block grant (*p*=.09)
•% revenue from county government (*p*<.05)
•Number of physicians (*p*<.05)
•% masters-level counselors (*p*=.06)

Results (continued)

Multivariate models were estimated for each financial factor, while controlling for number of physicians and the percentage of master's-level counselors. Two financial factors were significant in these adjusted models. Greater reliance on private insurance funding was positively associated with MAT implementation, while greater reliance on the Federal block grant was negatively associated with MAT implementation.

Table 2: Models of MAT Implementation for Each Financial Factor, Adjusted for Number of Physicians and Counselors with a Master's Degree

	Adjusted b (SE)
% revenue from Medicaid	.015 (.009)
% revenues from private insurance	.028 (.010)**
% revenues from Federal block grant	-.025 (.011)*
% revenues from county government	-.009 (.019)

*p < .05, **p < .01, ***p < .001 (two-tailed tests)

Conclusions

Naltrexone and acamprosate were rarely used in specialty settings to treat patients with alcohol use disorders. Implementation was greater in programs that relied more heavily on private insurance, while reliance on the Federal block grant was a barrier to implementation. These findings differ from our prior analysis of medications for opioid use disorders in which these sources of funding were not associated with implementation. Taken together, these two studies suggest that different types of funding may have varying implications for the implementation of medications to treat addiction.