Medical Xpress

Improvement found in patients receiving medication for opioid use disorder with contingency management

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The opioid epidemic remains a U.S. public health crisis and has only worsened since the COVID-19 pandemic began in 2020, with opioid

deaths accounting for 69,000 of 93,000 overdose-related deaths in 2020, according to provisional drug overdose data released by the U.S. Centers for Disease Control and Prevention in July 2021. Opioid use disorder (OUD) contributes to an overall decrease in mean life expectancy in the U.S. and has an economic cost of more than $786 billion annually. A systematic review and meta-analysis found that using contingency management (CM) at end-of-treatment improved outcomes on six common clinical problems during medication for OUD (MOUD): psychomotor stimulant use, polysubstance use, illicit-opioid use, cigarette smoking, therapy attendance, and medication adherence.

The study and an accompanying podcast appear today in *JAMA Psychiatry*.

OUD is often accompanied by other substance use and barriers to treatment adherence. Medication for OUD (MOUD) has been transformative in mitigating many of the terrible impacts of the U.S. opioid crisis. However, MOUD is ineffective at reducing the growing epidemic of psychomotor stimulant use (cocaine, methamphetamine). Use of psychomotor stimulants is a major driver behind the dramatically increasing U.S. overdose rates, often related to the drugs being cut with black market synthetic opioids (fentanyl). Importantly, psychostimulant use destabilizes the therapeutic gains from MOUD by promoting a return to illicit-opioid use and disrupting clinic attendance and adherence with prescribed medication regimens.

Led by the Vermont Center on Behavior and Health (VCBH) at the University of Vermont's Larner College of Medicine, the *JAMA Psychiatry* podcast features senior author and VCBH Director Stephen Higgins, Ph.D., who discusses the findings and the utility of behavioral intervention CM for addressing key clinical problems common among patients enrolled in MOUD. The study's first author is Hypatia Bolívar, Ph.D., additional VCBH collaborators include Elias Klemperer, Ph.D.,

Sulamunn Coleman, Ph.D., Michael DeSarno, M.S., and Joan Skelly, M.S.

These investigators searched the scientific literature for prospective experimental studies of monetary-based CM among participants enrolled in MOUD. The search identified 1,443 studies, of which 74 studies involving 10,444 adult participants met inclusion criteria. The primary outcome in this review was the effect of CM at end-of-treatment on six common clinical problems during MOUD: psychomotor stimulant use, polysubstance use, illicit-opioid use, cigarette smoking, therapy attendance, and medication adherence. Statical models were used to compute average treatment effect sizes of CM for each clinical problem and collapsing across problem categories to assess efficacy for increasing abstinence from illicit drug use and improving treatment adherence.

CM was efficacious across all six problems examined separately, with mean effect sizes for four of six in the medium-large range (stimulant use, $d = 0.70$ [95% CI: 0.49-0.92]; cigarette use, $d = 0.78$ [95% CI: 0.43-1.14]; illicit-opioid use, $d = 0.58$ [95% CI: 0.30-0.86]; medication adherence, $d = 0.75$ [95% CI: 0.30-1.21]), and two in the small-medium range (polysubstance use, $d = 0.46$ [95% CI: 0.30-0.62]; therapy attendance, $d = 0.43$ [95% CI: 0.22-0.65]). Collapsing across abstinence and adherence categories, CM produced medium effect sizes for abstinence (Cohen's $d = 0.58$; 95% CI: 0.47-0.69) and treatment adherence (Cohen's $d = 0.62$; 95% CI: 0.40—0.84) relative to controls.

"It is Important to underscore that CM is the only intervention shown in randomized clinical trials to be efficacious for treatment of psychomotor stimulant use disorder in more than 30 years of research," said Higgins.

These results provide compelling evidence supporting the efficacy of CM in addressing key clinical problems among patients receiving

MOUD, including the ongoing epidemic of psychomotor stimulant use and addiction. Policies facilitating a prompt integration of CM into community MOUD services are sorely needed. Indeed, doing so is a one of seven priorities underscored in the Biden-Harris Administration's Statement of Drug Policy Priorities For Year One released by the Office of National Drug Control Policy earlier this year.

More information: Hypatia A. Bolívar et al, Contingency Management for Patients Receiving Medication for Opioid Use Disorder, *JAMA Psychiatry* (2021). DOI: 10.1001/jamapsychiatry.2021.1969

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