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"I Kicked the Hard Way. I Got Incarcerated." Withdrawal from Methadone During Incarceration and Subsequent Aversion to Medication Assisted Treatments

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ABSTRACT

Incarceration is a common experience for individuals with opioid use disorder, including those receiving medication assisted treatments (MAT), such as buprenorphine or methadone. In the United States, MAT is rarely available during incarceration. We were interested in whether challenges with methadone maintenance treatment during incarceration affected subsequent attitudes toward MAT following release. We conducted semi-structured interviews with 21 formerly incarcerated individuals with opioid use disorder in community substance abuse treatment settings. Interviews were audio recorded, transcribed, and analyzed using a grounded theory approach. Themes that emerged upon iterative readings of transcripts were discussed by the research team. The three main themes relating to methadone were: 1) rapid dose reduction during incarceration; 2) discontinuity of methadone during incarceration; and 3) post incarceration aversion to methadone. Participants who received methadone maintenance treatment prior to incarceration reported severe and prolonged withdrawal symptoms from rapid dose reductions or disruption of their methadone treatment during incarceration. The severe withdrawal during incarceration contributed to a subsequent aversion to methadone and adversely affected future decisions regarding reengagement in MAT. Though MAT is the most efficacious treatment for opioid use disorder, current penal policy, which typically requires cessation of MAT during incarceration, may dissuade individuals with opioid use disorder from considering and engaging in MAT after release from incarceration.

1. Introduction

The consequences of opioid use disorder are wide ranging, and include increased risk of overdose, overdose related death, transmission of HIV or Hepatitis C Virus, and contact with the criminal justice system (Boutwell, Nijhawan, Zaller, & Rich, 2007; Degenhardt et al., 2011; Kinlock et al., 2007; Reimer et al., 2011). These consequences adversely impact both individual well-being and community health. In 2013, more than 2 million Americans met criteria for opioid use disorder, including 1.9 million endorsing opioid analgesic abuse or dependence and 517,000 endorsing heroin abuse or dependence (Substance Abuse and Mental Health Services Administration, 2014). Medication assisted treatments (MAT) for opioid use disorders, including maintenance treatment with methadone or buprenorphine, are effective at reducing illicit opioid use, HIV risk behaviors, and overall mortality, and may reduce criminal recidivism rates (Marsch, 1998; Mattick, Breen, Kimber, & Davoli, 2014; Woody et al., 2014). Despite the strong evidence base supporting its use, MAT remains underutilized in community settings, as well as within penal facilities, such as jails and prisons (Chandler, Fletcher, & Volkow, 2009; Fiscella, Moore, Engerman, & Meldrum, 2004; Kinlock, Gordon, Schwartz, & Fitzgerald, 2010; Larney, Toson, Burns, & Dolan, 2011).

Opioid use disorder and incarceration are closely related with an estimated one third of heroin users or 200,000 individuals passing through U.S. penal facilities annually (Boutwell et al., 2007). In the most recent national surveys of jail and prison inmates almost two thirds met criteria for a substance use disorder, and up to one quarter had opioid use disorder (Karberg & James, 2005; Mumola & Karberg, 2006). In New York, 83% of state prisoners are considered to be drug involved, and in 2008, 33% were incarcerated for drug-related offenses (The Correctional Association of New York, 2011). Despite the high prevalence of substance use disorders among individuals in penal facilities, treatment options during incarceration are often limited (Fiscella, Pless, Meldrum, & Fiscella, 2004). In the United States, few jail or prison inmates receive medication assisted treatment for opioid use disorder during incarceration. In 2008, fewer than 2000 prisoners, less than

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0.1% of the total prison population, received buprenorphine or methadone (Larney et al., 2011). Though 28 state prison systems report offering methadone, over half limit treatment to select populations, such as pregnant women or individuals with chronic pain (Nunn et al., 2009). Major reasons for not offering medication during incarceration include strict federal laws governing administration of MAT, preference for drug free detoxification, as well as ideological opposition to MAT (Harris et al., 2012). In New York City, the major jail complex on Rikers Island has offered MAT since 1986, improving access to treatment and preventing disruptions in treatment for those already receiving community MAT (Tomasino, Swanson, Nolan, & Shuman, 2001). By contrast, New York State prisons, which incarcerate individuals for felony convictions or sentences longer than a year, do not offer MAT. Failure to offer MAT during incarceration may affect long-term management of opioid use disorder following release, but this area is not well studied.

We conducted a qualitative study investigating attitudes toward MAT among formerly incarcerated individuals with opioid use disorder. The overarching goal of the study was to identify barriers to and facilitators of buprenorphine maintenance treatment following release from incarceration. This secondary analysis focused on whether challenges with methadone maintenance treatment during incarceration affected subsequent attitudes toward MAT following release. Findings can inform policies regarding MAT at penal facilities.

2. Material and methods

We conducted semi-structured interviews with 21 formerly incarcerated individuals with opioid use disorder between November 2012 and December 2013. The study was approved by the Institutional Review Board of the Albert Einstein College of Medicine.

2.1. Participants

Inclusion criteria were: 1) incarceration (≥1 day in jail or prison) in the previous 5 years; 2) opioid use disorder; 3) 18 years of age or older; and 4) fluent in English or Spanish.

Prior receipt of MAT was not an inclusion criterion, but we targeted sampling to include participants with diverse experiences with substance abuse treatment, including buprenorphine maintenance, methadone maintenance, and non-pharmacologic treatment. This sampling approach was to recruit participants with different potential attitudes toward MAT, because of the primary study objective.

We recruited participants from a federally qualified health center (FQHC) and from a community based organization (CBO) that provides non-pharmacologic treatment for substance use disorders to formerly incarcerated individuals. The FQHC houses a buprenorphine treatment program that serves individuals with opioid use disorder and a "transitions clinic" that serves formerly incarcerated individuals (Cunningham et al., 2008; Fox et al., 2014). The study was described at a monthly buprenorphine provider meeting at the FQHC and four physicians subsequently referred potential study subjects who had received buprenorphine treatment. Two physicians at the transitions clinic referred patients who had received methadone treatment. The CBO provides court-mandated treatment for substance use disorders to parolees following release from penal facilities, and allows participants to utilize buprenorphine or methadone if prescribed. The study was described to a group of substance use disorder counselors who then referred potential subjects from their non-pharmacologic treatment groups. Potential subjects were then screened for inclusion criteria.

2.2. Setting

This study was conducted in the community but most participants had experience at Rikers Island (New York City Jail) and New York State prisons, where MAT was and was not available, respectively. The availability of MAT at Rikers Island is through the KEEP program, which offers treatment for acute opioid withdrawal or maintenance treatment in some circumstances. Individuals with a sentence of less than 1 year and not on parole, or facing a warrant or felony charge, would meet criteria for maintenance treatment, while individuals being transferred to prison would not. In 2008, 8000 individuals were tapered off methadone and 4000 individuals were continued on or initiated methadone maintenance treatment (Harris et al., 2012).

2.3. Data collection

A trained research assistant obtained informed consent and conducted face to face interviews lasting approximately 1 hour in a private room at the FQHC or CBO. All interviews were audiotaped and professionally transcribed; one was translated from Spanish to English prior to transcription. Participants were compensated with $20 and a $5 transit pass.

2.4. Interviews

We developed an interview guide to elicit participants' experiences with treatment for opioid use disorder, incarceration, community reentry, and attitudes toward methadone and buprenorphine. Participants also completed surveys eliciting socio-demographic information. The semi-structured interviews were guided by the participants; open ended questions were followed up with more specific probes based on their responses. For example, the question, "Can you tell me about the last time that you were incarcerated?" was followed by more specific questions: "How about your drug use when you were in jail or prison? Can you tell me about any craving or withdrawal symptoms that you had? Can you tell me about the treatment for heroin addiction that was available while you were incarcerated (groups, methadone, Suboxone, etc.)?"

2.5. Data analysis

We analyzed the data in an iterative process using a grounded theory approach. Three investigators (AF, JM, JS) developed a coding scheme to categorize themes that emerged upon readings of the first five transcripts. This coding list was then applied to all 21 transcripts in an iterative process with two investigators independently coding each one. Transcripts were then discussed by the entire research team and discrepancies in coding or revisions to the coding list were resolved by consensus. Agreed upon codes were entered into N Vivo software, so that content from all transcripts could be sorted and extracted by code. For this analysis, codes relating to methadone, withdrawal during incarceration, and attitudes toward MAT following incarceration were retrieved and discussed by the research team in detail. Common themes related to these topics were further refined during discussion and were used to develop an explanatory model regarding incarceration and attitudes toward MAT.

3. Results

The 21 participants were middle aged (median age: 49); all were African American or Hispanic, 18 were male, and 20 spoke English fluently. They had been incarcerated for a median of 16 years (IQR: 5.5–26) as adults, and prison or jail release was a median of 7.5 months (range: 10 days–4 years) prior to interview. Two participants were only incarcerated in jail and not prison. No female participants reported being pregnant during incarceration. The median number of years of heroin use was 24 (IQR: 15–30). All but one participant received non-pharmacologic treatment of substance use disorder during incarceration; six participants were receiving buprenorphine at the time of interviews, and three were receiving methadone (see Table 1).