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Evaluating the implementation of a prisoner re-entry initiative for individuals with opioid use and mental health disorders: Application of the consolidated framework for implementation research in a cross-system initiative☆

Julie Hanna[a,*], Sheryl Kubiak[b], Emily Pasman[a], Ayorkor Gaba[c], Michael Andre[c], David Smelson[c], Debra A. Pinals[d,e]

[a] Center for Behavioral Health and Justice, Wayne State University, 5201 Cass Avenue, Detroit, MI 48202, USA
[b] School of Social Work, Wayne State University, 5447 Woodward Avenue, Detroit, MI 48202, USA
[c] Department of Psychiatry, University of Massachusetts Medical School, 365 Plantation Street, Worcester, MA 01605, USA
[d] University of Michigan, 4250 Plymouth Rd, Ann Arbor, MI 48109, USA
[e] Michigan Department of Health and Human Services, USA

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ABSTRACT

Given the interrelated nature of opioid use, criminal justice interaction, and mental health issues, the current opioid crisis has created an urgent need for treatment, including medication assisted treatment, among justice-involved populations. Implementation research plays an important role in improving systems of care and integration of evidence-based practices within and outside of criminal justice institutions. The current study is a formative qualitative evaluation of the implementation of a cross-system (corrections and community-based) opioid use treatment initiative supported by Opioid State Targeted Response (STR) funding. The purpose of the study is to assess the fit of the Consolidated Framework for Implementation Research (CFIR) to a cross-system initiative, and to identify key barriers and facilitators to implementation.

The process evaluation showed that adaptability of the clinical model and staff flexibility were critical to implementation. Cultural and procedural differences across correctional facilities and community-based treatment programs required frequent and structured forums for cross-system communication. Challenges related to recruitment and enrollment, staffing, MAT, and data collection were addressed through the collaborative development and continuous review of policies and procedures.

This study found CFIR to be a useful framework for understanding implementation uptake and barriers. The framework was particularly valuable in reinforcing the use of implementation research as a means for continuous process improvement. CFIR is a comprehensive and flexible framework that may be adopted in future cross-system evaluations.

1. Introduction

1.1. Opioid epidemic

Between 1999 and 2017, nearly 400,000 opioid overdose deaths (OODs) occurred in the U.S., with nearly 50,000 OODs occurring in 2017 alone (Scholl, Wilson, & Baldwin, 2019). The Centers for Disease Control and Prevention (CDC) outlines three waves in the rise of OOD: prescription OODs starting in 1999, heroin overdose deaths starting in 2010, and synthetic OODs starting in 2013 (Center for Disease Control and Prevention, 2018). By 2017, the federal government had declared the opioid crisis a public emergency (Substance Abuse and Mental Health Service Administration, 2017).

Analysis of the National Survey on Drug Use and Health data

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* Corresponding author.
E-mail addresses: julie.hanna@wayne.edu (J. Hanna), spk@wayne.edu (S. Kubiak), emily.pasman@wayne.edu (E. Pasman), ayorkor.gaba@umassmed.edu (A. Gaba), michael.andre@umassmed.edu (M. Andre), david.smelson@umassmed.edu (D. Smelson), dpinals@med.umich.edu (D.A. Pinals).

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(NSDUH) showed that criminal justice involvement increases as intensity of opioid use increases (Winkelman, Chang, & Binswanger, 2018). Additionally, about half of those with higher intensities of opioid usage (i.e., prescription opioid misuse, prescription opioid use disorder, or heroin use) also have co-occurring mental health issues (Winkelman et al., 2018). People who have co-occurring disorders and are also incarcerated present a unique set of needs for accessing appropriate treatment and for successful reentry to the community (Chandler, Peters, Field, & Juliano-Bult, 2004). Managing behavioral health needs as well as securing housing, transportation, and employment upon release are all challenging. This population has high rates of recidivism and homelessness and tends to have limited social and financial supports (Messina, Burdon, Hagopian, & Prendergast, 2004; Peters, Kremling, Bekman, & Caudy, 2012; Peters, Sherman, & Osher, 2008).

A recent study in North Carolina showed that the risk for OOD among inmates within two-weeks post-release from prison was 40 times higher than that of the general population; heroin carried an even greater risk, with recently released individuals being 74 times more likely than the general population to die from a heroin overdose (Ranapurwala et al., 2018). Furthermore, those receiving mental health services while incarcerated had almost twice the risk of OOD during the study period compared to those who did not receive mental health services (Ranapurwala et al., 2018). The increased vulnerability of this population demonstrates the importance of connection to community-based services, specifically substance use treatment, prior to reentry into the community.

Both the World Health Organization's Guidelines for the Psychosocially Assisted Pharmacological Treatment of Opioid Dependence and the U.S. Surgeon General (United States Department of Health and Human Services, 2018; World Health Organization, 2009) recommend that a variety of psychosocial and medical services be offered to individuals regardless of incarceration status. Research shows that individuals who receive medication assisted treatment (MAT) prior to release have improved outcomes such as increased enrollment in community-based substance use treatment, improvements in medical and mental health, and decreased rates of substance use and recidivism (Gordon et al., 2014; Kinlock et al., 2007; Lee et al., 2016).

1.2. Medication Assisted Treatment (MAT) in justice settings

Despite MAT's effectiveness in treating opioid use disorders, discrepancies exist in the rates of use across the three types (i.e., methadone; naltrexone available in oral form or extended-release injectable form with the generic label “XR-NTX”; and buprenorphine products). Barriers to receiving MAT include stigma (the idea of “replacing one drug with another”) and limited availability among community substance use treatment providers. The 2017 National Survey for Substance Abuse Treatment Services (N-SSATS) reports that only 10%, 29%, and 24% of substance use treatment providers offer methadone, buprenorphine and XR-NTX, respectively (Substance Abuse and Mental Health Services Administration, 2018a, 2018b). These barriers are exacerbated in justice settings, leading to extremely limited MAT availability in jails and prisons. One such obstacle in implementing MAT in justice settings is the need for complex cross-system collaboration among justice and community-based treatment systems at the state and county levels, including creation of policies, provision of intensive training, establishing cross-system networks, and ensuring ongoing monitoring to proactively address public safety concerns (Friedmann et al., 2012).

A recent meta-analysis examining the effectiveness of MAT delivered in prisons and jails found promising results with methadone treatment (Moore et al., 2019). There were not enough studies of buprenorphine or naltrexone to meta-analyze, but data from trials in which methadone was provided during incarceration demonstrated increased community treatment engagement and reduction in illicit opioid and injection drug use (Moore et al., 2019). In a randomized control trial of individuals recently released from prison, XR-NTX plus counseling showed improved relapse outcomes compared to counseling or treatment referrals alone (Lee et al., 2016). These differences disappeared one year after treatment ended, demonstrating the need for ongoing community-based treatment. In 2016, Rhode Island became the first state to implement a full MAT program in prison, offering all three forms of MAT in conjunction with psychosocial supports. Twelve-months following program implementation, OODs have decreased by 61% among re-entering citizens (Green et al., 2018).

1.3. System integration and evidence-based practices

The environments in which public health programs are implemented are increasingly complex, involving interdependent interactions across multiple service delivery systems (Arora et al., 2017). Adding to the complexity is the degree to which these systems differ in organizational characteristics and culture. The National Criminal Justice Treatment Practice Survey (NCJTPS) was conducted to assess substance use treatment services in the criminal justice system and found a need for “better systems of care and integration of services inside and outside the institutions” (McCarty & Chandler, 2009, S92). An entire issue of *Drug and Alcohol Dependence* in 2009 (103S) was dedicated to examining the role of systems relationships across correctional and community-based substance use treatment systems, with a key recommendation being establishment of cross-system relationships at policy and program levels (Taxman, Henderson, & Belenko, 2009).

An increased focus on evidence-based practices (EBPs) has yielded the benefits of practices that are standardized and manualized. However, the ‘research-to-practice’ question remains i.e., How do we tailor and apply researched interventions such as MAT in a way that is most relevant to a specific population? Inconsistent adoption of EBPs across these complex settings has contributed to a growing focus on implementation science (Keith, Crosson, O'Malley, Cromp, & Fries Taylor, 2017). Implementation studies examine a breadth of process outcome variables, factors effecting implementation, and implementation strategies (Peters, Adam, Alonge, Agyepong, & Tran, 2013). The purpose of implementation research is to understand “what, why, and how interventions work in ‘real world’ settings and to test approaches to improve them” (Peters et al., 2013, p. 1).

1.4. State Targeted Response to the Opioid Crisis (STR) and the current initiative

The current initiative was implemented in 2017 with funding from SAMHSA's State Targeted Response to the Opioid Crisis (STR). The initiative goals are to expand the service array for individuals with co-occurring opioid use and mental health disorders by increasing access to psychosocial supports and MAT, to reduce OODs, and to reduce recidivism among the target population. This initiative utilizes the evidence-based MISSION-CJ (Maintaining Independence and Sobriety through Systems Integration, Outreach, and Networking – Criminal Justice) model to address the unique needs of justice-involved individuals with co-occurring mental health and substance use disorders (Pinals, Smelson, Harter, Sawh, & Ziedonis, 2014; Smelson et al., 2012). MISSION-CJ services are provided by a case manager and peer support specialist for up to three months pre-release and six months post-release from incarceration. Case managers and peer support specialists connect participants with mental health and substance use disorder providers in the community to assist in the continuity of care. MISSION-CJ includes six components: Critical Time Intervention case management (Susser et al., 1997); Dual Recovery Therapy (Ziedonis & Stern, 2001); peer support; vocational and educational supports; and trauma-informed care. MISSION-CJ also includes comprehensive risk-need assessment and treatment planning modeled after the Risk-Need-Responsivity (RNR) framework (Bonta & Andrews, 2007). This initiative is a cross-