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Future directions for medication assisted treatment for opioid use disorder with American Indian/Alaska Natives

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HIGHLIGHTS

- AI/ANs exhibit alarming opioid use disorder (OUD) related health disparities.
- MAT implementation with AI/ANs requires integrating MAT into traditional healing.
- Some barriers to MAT implementation involve unique cultural considerations.
- A "two-eyed seeing" approach uses both Western and indigenous worldviews.
- Collaborative research is needed to address the AI/AN OUD health disparities.

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ABSTRACT

The U.S. is experiencing an alarming opioid epidemic, and although American Indians and Alaska Natives (AI/ANs) are especially hard hit, there is a paucity of opioid-related treatment research with these communities. AI/ANs are second only to Whites in the U.S. for overdose mortality. Thus, the National Institute on Drug Abuse convened a meeting of key stakeholders to elicit feedback on the acceptability and uptake of medication assisted treatment (MAT) for opioid use disorders (OUDs) among AI/ANs. Five themes from this one-day meeting emerged: 1) the mismatch between Western secular and reductionistic medicine and the AI/AN holistic healing tradition; 2) the need to integrate MAT into AI/AN traditional healing; 3) the conflict between standardized MAT delivery and the traditional AI/AN desire for healing to include being medicine free; 4) systemic barriers; and 5) the need to improve research with AI/ANs using culturally relevant methods. Discussion is organized around key implementation strategies informed by these themes and necessary for the successful adoption of MAT in AI/AN communities: 1) type of medication; 2) educational interventions; 3) coordination of care; and 4) adjunctive psychosocial counseling. Using a community-based participatory research approach is consistent with a "two eyed seeing" approach that integrates Western and Indigenous worldviews. Such an approach is needed to develop impactful research in collaboration with AI/AN communities to address OUD health disparities.

1. Introduction

The U.S. is in the midst of an alarming opioid epidemic, resulting in increased rates of overdose (OD). Since 1999, the number of OD deaths involving opioids quadrupled (Centers for Disease Control and Prevention, 2016). In 2015 alone, there were 33,091 opioid-related OD deaths (Rudd et al., 2016). These trends are magnified among American Indians/Alaska Natives (AI/ANs) compared to other racial/ethnic groups. AI/ANs are second only to Whites in the rate of OD mortality (8/100,000 versus 12/100,000 deaths, respectively) (CDC and

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Prevention, 2016). AI/AN OD deaths vary substantially by state, with highest OD mortality in Minnesota (26/100,000), Washington (21/100,000), Alaska and Oklahoma (both 13/100,000). Although specific tribal data is scarce, a recent survey of one tribe revealed alarming rates of non-medical use of prescription drugs (30% lifetime; 13% past month), especially among those aged 18–25 (47% lifetime; this is compared to 5% for the U.S. overall) (Momper et al., 2013; Substance Abuse and Mental Health Services Administration, 2011). A focus on these AI/AN disparities, particularly in high risk states, is warranted.

2. Pharmacological treatment of opioid use disorders

Three highly effective pharmacological medications for the treatment of opioid use disorder (OUD) are currently available: methadone, an agonist medication; buprenorphine/naloxone, a partial agonist medication that does not reproduce opioid effects even at higher doses and thus has lower abuse liability; and naltrexone, an antagonist medication which requires that patients be fully detoxified from opioids before initiation (to not precipitate withdrawal) (SAMHSA, 2018). Results from rigorous clinical trials demonstrate that "medications for addiction treatment (or MAT)" produce superior abstinence and treatment retention outcomes compared to psychosocial treatments without medication or with placebo (Connery, 2015). More specifically, methadone has been shown to yield twice the abstinence rates compared to placebo or detox (Connery, 2015; Mattick et al., 2003). Buprenorphine/naloxone is highly efficacious with three to eight times the abstinence rates compared to placebo or detox alone (Fudala et al., 2003; Weiss et al., 2011; Woody, 2017). Finally, extended release naltrexone, a monthly injectable, has demonstrated similar effectiveness to buprenorphine/naloxone, however there are greater retention challenges during induction onto the medication which requires the patient to be opioid free to avoid precipitating withdrawal (Lee et al., 2018; Woody, 2017).

2.1. Pharmacological treatment of opioid use disorder with AI/ANs

To date, there are no published outcome studies of MAT for OUD among AI/ANs in the United States. One randomized controlled trial (RCT) of naltrexone plus sertraline for alcohol use disorder among Alaska Natives concluded that naltrexone implementation was feasible in rural areas and effective in this population (O'Malley et al., 2008). MAT outcome studies with AI/ANs are urgently needed. Currently, the number of SUD treatment programs that have successfully implemented MAT for OUD among AI/ANs is unknown. A survey study of AI/AN providers in 192 SUD treatment programs serving predominantly AI/AN clients found that only 28% reported MAT implementation, 44% did not implement MAT, and 28% skipped the section entirely due to lack of familiarity with MAT (Rieckmann, Moore, Croy, Aarons, & Novins, 2017). Two of the significant predictors of MAT implementation included perceived fit of MAT with their treatment approach and philosophy and perceived fit with staff expertise and training (Rieckmann et al., 2017).

Qualitative research studies highlight barriers to the acceptability of MAT for OUD among AI/ANs. Momper, Delva, and Reed (2011), Momper, Dennis, and Mueller-Williams (2012) conducted two studies among AIs who were using opioids and providers on a reservation exploring opioid use and treatment preference. Results indicated a preference for controlling supply rather than treatment, and concerns about the use of Suboxone, including diversion and only using it until more prescription opioids were available.

More published research on facilitators, barriers, and outcomes of MAT among Indigenous patients exists in Canada and Australia. Earlier studies showed that among opioid injection drug users, Indigenous individuals with OUDs were less likely to receive, or took more time to initiate, traditional methadone maintenance therapy (Kerr, Marsh, Li, Montaner, & Wood, 2005; Wood et al., 2007; Yang et al., 2011). Kerr et al. (2005) attributed lower treatment engagement to a lack of Indigenous providers and culturally-appropriate treatment, as well as Indigenous communities emphasizing abstinence-based recovery.

Since these earlier studies, culturally-centered MAT services have been successfully implemented with Indigenous people in Australia and Canada (Black et al., 2007; Poirier, 2015; Williams, Williams, Nasir, Smither, & Troon, 2006). In Australia, success was attributed to the culturally-specific design, integrated care, and a focus on family and community wellness (Williams et al., 2006). In Canada, patients reported positive treatment outcomes, improvements in housing, employment, and family support, and general satisfaction and acceptance of MAT (Poirier, 2015). Reported barriers were similar to other methadone maintained populations (e.g., lack of take home doses, community stigma) (Poirier, 2015).

2.2. Understanding multi-systemic MAT implementation issues

Equally important to understanding acceptability, efficacy, and effectiveness of MAT for OUD are implementation factors that facilitate MAT delivery within AI/AN communities. *Structural barriers* include coverage for AI/AN treatment services (often limited to IHS programs which are underfunded), transportation, and the paucity of licensed buprenorphine prescribers (DeFlavio, Rolin, Nordstrom, & Kazal Jr., 2015; Hutchinson & Bouchet, 2014). Urban AI/ANs may also face difficulties navigating the health care system, based in part on mobility, enculturation, and lack of formal tribal affiliation (Norris, Vines, & Hoeffel, 2012; SAMHSA, 2010). *Community barriers* may include stigma of substance use or treatment, limited family support, and misperceptions about MAT (Landry et al., 2016) such as MAT is substituting one "drug" with another. *Organizational barriers* include difficulties in attracting and retaining providers and staff especially in remote areas or on reservations. *Individual barriers* to MAT include attitudes of self-reliance, fear of treatment and social consequences, costs, and pessimistic attitudes toward treatment efficacy.

2.3. Western science and indigenous ways of knowing

In considering implementation of MAT with AI/AN communities, it is incumbent to acknowledge similarities and differences between Western medical models and traditional AI/AN healing (Gone & Looking, 2011; Walters & Simoni, 2002). While both aim to improve health, Western treatment is commonly secular while AI/AN healing focuses on spirituality and holistic wellness. For example, most Indigenous peoples utilize circle-based teachings of traditional knowledge for healing (Coyhis & Simonelli, 2008), such as the medicine wheel. The medicine wheel is an Indigenous view of the person as equal parts mental, physical, emotional and spiritual (McCormick, 2009) with the health of a person depending on the balance and integration of these dimensions (McCabe, 2008). Western science is often reductionist and may study one area (e.g., biological) to the exclusion of other areas (psychological, social, cultural, spiritual). There is a need for Western and Indigenous people to collaborate as equal partners to successfully address AI/AN opioid related health disparities.

With regard to research, addressing health disparities and developing culturally appropriate and effective interventions for AIANs requires an approach that includes reciprocity between academic and community researchers. Community-based and tribal participatory research approaches are respectful and effective ways for academic and tribal communities to develop trust and collaborate through all phases of the research process, while sharing power and responsibility and ensuring that studies and their findings are relevant and culturally appropriate (Cochran et al., 2008; Fisher & Ball, 2003; Lowe, Riggs, & Henson, 2011).

The methods and spirit of CBPR were used in organizing a National Institute on Drug Abuse (NIDA) meeting to bring together diverse stakeholders (i.e., AI/AN community members, AI/AN and non-AI/AN