



Full length article

## Variation in receipt of pharmacotherapy for alcohol use disorders across racial/ethnic groups: A national study in the U.S. Veterans Health Administration



Emily C. Williams<sup>a,b,\*</sup>, Shalini Gupta<sup>c</sup>, Anna D. Rubinsky<sup>d</sup>, Joseph E. Glass<sup>f</sup>, Rhonda Jones-Webb<sup>e</sup>, Kara M. Bensley<sup>a,b</sup>, Alex H.S. Harris<sup>c</sup>

<sup>a</sup> Veterans Health Administration (VA), Denver Seattle Center of Innovation for Veteran-Centered Value-Driven Care, VA Puget Sound Health Services Research and Development, United States

<sup>b</sup> University of Washington, Department of Health Services, United States

<sup>c</sup> VA Palo Alto Health Care System, United States

<sup>d</sup> The Kidney Health Research Collaborative, University of California, San Francisco and San Francisco VA Medical Center, San Francisco, CA, United States

<sup>e</sup> Division of Epidemiology and Community Health, University of Minnesota School of Public Health, United States

<sup>f</sup> Kaiser Permanente Washington Health Research Institute, United States

### ARTICLE INFO

#### Keywords:

Race  
Ethnicity  
Alcohol use disorders  
Medications  
Pharmacotherapy

### ABSTRACT

**Objective:** Pharmacologic treatment is recommended for alcohol use disorders (AUD), but most patients do not receive it. Although racial/ethnic minorities have greater AUD consequences than whites, whether AUD medication receipt varies across race/ethnicity is unknown. We evaluate this in a national sample.

**Methods:** Electronic health records data were extracted for all black, Hispanic, and/or white patients who received care at the U.S. Veterans Health Administration (VA) during Fiscal Year 2012 and had a documented AUD diagnosis. Mixed effects regression models, with a random effect for facility, determined the likelihood of receiving AUD pharmacotherapy (acamprosate, disulfiram, topiramate or oral or injectable naltrexone  $\leq 180$  days after AUD diagnosis) for black and Hispanic patients relative to white patients. Models were unadjusted and then adjusted for patient- and facility-level factors.

**Results:** 297,506 patients had AUD; 26.4% were black patients, 7.1% were Hispanic patients and 66.5% were white patients; 5.1% received AUD medications. Before adjustment, black patients were less likely than white [Odds Ratio (OR) 0.77; 95% Confidence Interval (CI) 0.75–0.82; ( $p < 0.001$ )], while Hispanic patients were more likely than white (OR 1.09; 95% CI 1.01–1.16) to receive AUD medications. After adjustment, black patients remained less likely than white to receive AUD medications (OR 0.68; 95% CI 0.65–0.71;  $p < 0.0001$ ); no difference between Hispanic and white patients was observed (OR 0.94; 95% CI 0.87–1.00;  $p = 0.07$ ).

**Conclusions:** In this national study of patients with AUD, blacks were less likely to receive AUD medications than whites. Future research is needed to identify why these disparities exist.

### 1. Introduction

Alcohol use disorders (AUD) are common, with a lifetime prevalence of nearly 30% in the U.S. general population (Grant et al., 2015). Effective treatments are available and recommended by clinical guidelines (National Health Service, 2010; National Institute on Alcohol Abuse and Alcoholism, 2007). One evidence-based approach to treating AUD is the use of pharmacotherapy. Four evidence-based medications are recommended for AUD treatment (Jonas et al., 2014). Three are FDA-approved for treating AUD, including *disulfiram* (often called antabuse<sup>®</sup>), *acamprosate*, and *naltrexone*, which is available both orally and

via monthly injections (Lingford-Hughes et al., 2012). Another medication—*topiramate*—while not FDA-approved has strong meta-analytic support for treatment of AUD (Jonas et al., 2014). Use of pharmacotherapy is particularly promising for treating AUD because it may address often-cited barriers to receiving specialty addictions treatment (e.g., time, mandatory group settings, not being ready to abstain from drinking) (Cohen et al., 2007; Gastfriend et al., 2007; McLellan, 2007). However, a very small proportion of persons with AUD (4–12%) are treated pharmacologically (Harris et al., 2010; Harris et al., 2012; Mark et al., 2009). This may be due to a number of factors including costs, patient preference, and provider knowledge, skills, and beliefs (Harris

\* Corresponding author at: VA Puget Sound Health Care System, Health Services Research and Development 1660 S Columbian Way, S-152, Seattle, WA 98108, United States.  
E-mail address: [emily.williams3@va.gov](mailto:emily.williams3@va.gov) (E.C. Williams).

et al., 2013; Mark et al., 2003; Oliva et al., 2011).

Receipt of evidence-based treatments for AUD may be particularly important in some population subgroups due to their higher vulnerability to the adverse effects of alcohol use. While the prevalence of AUD in the U.S. general population is lower among racial/ethnic minorities than among white persons (Grant et al., 2015), racial/ethnic minorities, particularly black individuals, often have more severe health (e.g., liver disease) and social (e.g., legal problems, arguments, accidents) consequences from AUD than whites (Mulia et al., 2009; Witbrodt et al., 2014; Zemore et al., 2016). Moreover, there have been greater increases in the prevalence of heavy episodic drinking among blacks than whites in the past decade (Dawson et al., 2015). In an earlier study of ours among patients in the United States Veterans Health Administration (VA), we found black patients had the highest rates of clinically diagnosed AUD relative to Hispanic and white patients (Williams et al., 2016). Therefore, racial/ethnic minorities, and black persons in particular, may represent a vulnerable population of patients with AUD for whom receipt of evidence-based treatments may be particularly important.

Several previous studies have described racial/ethnic differences in receipt of evidence-based alcohol interventions and treatments with somewhat mixed findings (Bensley et al., 2017; Cook and Alegria, 2011; Dobscha et al., 2009; Glass et al., 2010; Mukamal, 2007; Williams et al., 2012b; Zemore et al., 2014). However, whether receipt of medications for AUD varies across race/ethnicity is unknown. In this study, we describe racial/ethnic differences in receipt of medications for AUD disorders in a national sample of patients with clinically recognized AUD from the U.S. VA.

## 2. Methods

### 2.1. Study sample and data source

VA electronic health record (EHR) data from Fiscal Years 2011–2013 were extracted from the VA Corporate Data Warehouse, which includes clinical, administrative, pharmacy, and utilization data for all users of VA care. Data were extracted for all VA enrollees who had any outpatient or inpatient/residential utilization during Fiscal Year (FY) 2012 (10/1/11–9/30/12) and had information regarding race/ethnicity documented in their medical record ( $n = 4,790,035$ ; 83% of all patients). Documentation of race/ethnicity is largely based on patient self-report, and those who decline to answer or are not asked have missing race/ethnicity data and were excluded from this study (Veterans Health Administration, 2009). Patients included in the present study were those who reported black, Hispanic, and/or white race/ethnicity ( $n = 4,666,403$ , 97% of those who met other criteria) and who had a documented AUD ( $n = 297,506$ , 6.4%), based on documentation of any diagnosis of alcohol abuse or dependence not in remission during FY2012 (ICD-9 codes 303.9–303.92 or 305.0–305.02). Only black, Hispanic, and white patients were included in this study in order to facilitate comparability to previous studies and include groups with the greatest representation in the data.

### 2.2. Measures

#### 2.2.1. Independent measure of interest

Race/ethnicity was categorized as Hispanic, non-Hispanic black, and non-Hispanic white, based first on whether patients were documented as having reported Hispanic ethnicity consistent with U.S. Bureau of the Census guidelines (Office of Management and Budget, 1997). As such, those of Hispanic ethnicity were categorized as Hispanic irrespective of whether they were also documented as black or white. We then hierarchically coded race as black and then white.

#### 2.2.2. Outcome of interest

Receipt of AUD medications was measured, consistent with previous

methods of measuring receipt of AUD medications (Harris et al., 2010; Harris et al., 2012), as a filled prescription for acamprosate, disulfiram, topiramate, or oral or injectable naltrexone within 180 days following the first AUD diagnosis in Fiscal Year 12 (FY2012). This measure was derived based on the date the medication was dispensed (in the case of inpatients) or filled/picked up at a VA pharmacy or mailed (in the case of outpatients).

#### 2.2.3. Covariates

Factors that may confound the association between race/ethnicity and receipt of AUD medications were identified *a priori* based on a conceptual model, which was developed to understand racial/ethnic differences in alcohol-related care and outcomes (Williams et al., 2012b) and used to guide the study. The model, informed by Andersen's model of healthcare use (Andersen, 1995), posits that patients' predisposing (e.g., gender), enabling (e.g., social support), and need (e.g., alcohol use severity) characteristics interact to influence health care use, and that inequality in receipt and outcomes of care are moderated by structural (e.g., availability of AUD treatment), provider (e.g., internalized bias), and patient-level (e.g., trust) factors, all in the context of a society in which racial/ethnic discrimination and alcohol-related stigma exist. Concepts described by the model for which measures were available in this study included only facility-level structural characteristics, as well as patient-level predisposing, enabling, and need characteristics (Williams et al., 2012b).

**2.2.3.1. Facility-level structural characteristics.** Three measures of facility-level structural characteristics were calculated at the VA facility station level ( $n = 141$ ) and assigned to each patient based on where they received the majority of their care in FY2012. These included 1) the facility-level rate (percent) of AUD diagnoses; 2) the percent Hispanic, and 3) the percent black patients served at the facility.

**2.2.3.2. Patient-level predisposing characteristics.** Predisposing characteristics included gender and age. Gender, which was documented clinically based on patient self-report, was defined dichotomously based on medical record documentation at the time of AUD diagnosis. Age was identified at the time of AUD diagnosis and categorized into groups (18–24; 25–34; 35–49; 50–64; and  $\geq 65$  years) consistent with categories used in previous research assessing alcohol-related care and outcomes (Williams et al., 2014b).

**2.2.3.3. Patient-level enabling characteristics.** Marital status, which served as a proxy measure of social support, was categorized as married, single, divorced/separated, or widowed based on medical record documentation at the time of AUD diagnosis. Because no measures of income, education, or insurance coverage are available in VA administrative data, VA eligibility status, which reflects dimensions of income, disability status, and healthcare coverage for Veterans, is commonly used as an indicator of socio-economic status (Williams et al., 2012b; Young et al., 2003a). Three categories of eligibility status were derived (full VA coverage, service-connected  $< 50\%$ , and no coverage) based on documented eligibility status at the time of AUD diagnosis. Because full VA coverage reflects Veterans with the lowest incomes and/or greatest disability, those with full VA coverage reflect the most disadvantaged group (Williams et al., 2016).

**2.2.3.4. Patient-level need characteristics.** Multiple need characteristics were assessed and measured based on documented ICD-9 diagnoses on the day of or in the 180 days prior to the first AUD diagnosis in FY2012 (thus, if patients' AUD diagnosis occurred at the beginning of FY12, records from FY11 were accessed). General comorbidity was measured with the Deyo Comorbidity Index based on ICD-9 diagnoses for myocardial infarction, congestive heart failure, peripheral vascular disease, cerebrovascular disease, senile and pre-senile dementias,

Download English Version:

<https://daneshyari.com/en/article/5120383>

Download Persian Version:

<https://daneshyari.com/article/5120383>

[Daneshyari.com](https://daneshyari.com)