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Prevalence and correlates of specialty substance use disorder treatment for Department of Veterans Affairs Healthcare System patients with high alcohol consumption

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ABSTRACT

Objective: Current substance use disorder (SUD) treatment guidelines suggest that SUD treatment may be indicated for individuals with elevated levels of alcohol consumption. The Department of Veterans Affairs (VA) considers patients with AUDIT-C scores of ≥8 as candidates for specialty care, however rates of SUD treatment based on AUDIT-C cutoffs remain understudied. We sought to identify SUD treatment rates and to identify patient characteristics that were associated with SUD treatment for VA patients with elevated AUDIT-C scores.
Methods: The study sample included 10,384 ambulatory care VA patients with AUDIT-C scores of ≥8, who had not received SUD treatment in the past 60 days. Data were ascertained from the 2005 Survey of Health Experiences of Patients, a confidential mailed patient satisfaction survey (results were not available to providers). The outcome variable was the receipt of VA specialty SUD treatment in the year after the survey completion, as ascertained by VA administrative data. We identified rates of SUD treatment, and conducted unadjusted *F* tests and adjusted logistic regression analyses to identify patient characteristics that were associated with treatment entry.
Results: Approximately 3.9% of veterans with AUDIT-C scores of ≥8 received SUD treatment in the year after being surveyed. Adjusted analyses revealed that treatment was more likely among persons with a mental health diagnosis (OR = 3.31, CI = 2.30–4.76) and among racial/ethnic minority groups.
Conclusions: Very few veterans who reported elevated alcohol consumption on SHEP received specialty SUD treatment in the year after being surveyed. Increased efforts should be made to intervene with patients who have elevated levels of alcohol consumption.

1. Introduction

Although many effective treatments exist for alcohol use disorders, few of those who might benefit from these services actually receive specialty addictions treatment. In the United States general population, rates of specialty substance use disorder (SUD) treatment for persons with past-year alcohol abuse or dependence were estimated at 8.1% (Substance Abuse and Mental Health Services Administration, 2008).

While addictions treatment programs have traditionally been geared towards individuals with alcohol use disorders (AUDs), current Department of Veterans Affairs (VA) treatment guidelines recommend that clinicians offer specialty treatment referral to patients who have high levels of alcohol consumption even when an AUD is not present (The Management of Substance Use Disorders Working Group, 2009). VA represents the largest integrated healthcare system in the United States. Their recommendation includes patients with scores of ≥8 on the three-question consumption version of the Alcohol Use Disorders Identification Test (AUDIT-C) (The Management of Substance Use Disorders Working Group, 2009). These recommendations acknowledge that alcohol-related problems are common in patients with AUDIT-C scores of ≥8, regardless of whether or not an AUD is present (Bradley et al., 2004).

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Although VA treatment guidelines recommend that SUD treatment referral be offered to patients with AUDIT-C scores of ≥8, no studies to date have documented the rates of specialty SUD treatment utilization for VA patients based on these cutoffs. Furthermore, the characteristics of patients with AUDIT-C scores of ≥8 who receive SUD treatment remain unknown. Understanding these factors may inform efforts to target patients for SUD referral.

To address these gaps in the literature, this study aims to identify the rates of specialty SUD treatment and to determine the clinical and sociodemographic characteristics associated with treatment entry for VA patients with AUDIT-C scores of ≥8. This study used data from the 2005 Survey of Health Experiences of Patients (SHEP). By linking SHEP to VA medical records, we were able to supplement self-report data with information on clinical diagnoses, and determine if specialty SUD treatment occurred within VA in the year after being surveyed.

2. Methods

2.1. Study population

Data for this study involved linking the ambulatory care SHEP survey to VA administrative medical records. A total of 262,003 patients returned the 2005 survey with a response rate of 59.9%, and we were able to link 261,996 of these respondents to administrative data via unique patient identifiers. Survey data includes a final weighting variable that adjusts for sampling selection and non-response by age, gender, treatment site, and patient group. On a monthly basis, VA created a national sampling frame for SHEP consisting of patients completing ambulatory healthcare visits at 800 VA treatment facilities in the prior 60 days (Wright et al., 2006). A complex sampling design selected equal numbers of patients from primary care and specialty ambulatory care sections across VA facilities using a stratified approach (Bradley et al., 2006). The results of SHEP are confidential, and were not available to treatment providers.

Further information on survey design and data collection of SHEP exists in previous studies (Dobscha et al., 2009; Kahwati et al., 2007; Wright et al., 2006). SHEP data were made available by the VA Office of Quality and Performance, and analysts at the VA National Serious Mental Illness Treatment Research and Evaluation Center (SMITREC) linked SHEP data to VA administrative databases. The use of these data for research was approved by the Institutional Review Board at the VA Ann Arbor Healthcare System.

2.2. Measures

2.2.1. SUD treatment. The outcome used in our analyses was a dichotomous variable indicating the receipt of specialty SUD treatment for alcohol and/or drug problems during the year after SHEP completion in any VA outpatient, residential, or inpatient setting. The date of SHEP completion served as an index, and we identified whether visits occurred in the following year using administrative data. Outpatient visits were identified by database codes that designate SUD clinic visit locations. Residential and inpatient visits were identified by SUD bed section codes (Dalton and McKellar, 2007). Using a 60-day washout period, we excluded patients who were receiving SUD treatment at the time of being surveyed. While treatment after the survey was our dependent variable, we also wanted to measure prior treatment as an independent variable (see Section 2.2.3). Essentially, the washout period avoided double-counting treatment episodes that were active at the time of the survey. This approach for identifying new episodes of care in administrative data is based on the work of Garnick et al. (2006)

2.2.2. Alcohol consumption. SHEP included the three-question Consumption version of the Alcohol Use Disorders Identification Test (AUDIT-C). The AUDIT-C assesses the severity of alcohol use and misuse for patients in clinical settings and has been used in research (Bradley et al., 2004; Bush et al., 1998). AUDIT-C scores ranges from 0 to 12, with higher scores indicating greater levels of alcohol consumption. The VA clinical practice guideline recommends that referral be offered to patients with AUDIT-C scores of ≥8, thus we used this cutoff to define our sample. One could minimally achieve this score, for example, by drinking on average three drinks per day four times per week, and having one weekly episode of drinking six drinks

2.2.3. Past-year SUD treatment. Patients with SUD treatment visits occurring in the 365 days prior to completing SHEP were identified using administrative data.

2.2.4. Clinical diagnoses. We searched the administrative medical records for ICD-9-CM codes assigned in any VA outpatient, residential, or inpatient visits during the 365 days prior to being surveyed. Alcohol and drug use disorders included ICD-9-CM codes that indicate abuse, dependence, and substance-induced problems (we excluded nicotine use disorders and substance use disorders in remission.) We identified the presence of any of the following mental health disorders: depression, PTSD, other anxiety disorders, personality disorders, bipolar disorders, and schizophrenia or schizoaffective disorders. The identification of medical disorders utilized a modified version of the Charlson comorbidity index which is based on a count of 19 medical conditions identified by ICD-9-CM codes (Charlson et al., 1987; Valenstein et al., 2006) which was dichotomized to indicate the presence of any medical disorder.

2.2.5. Demographic characteristics. We categorized race and ethnicity questions from SHEP into five groupings: (1) White, not Hispanic; (2) Black, not Hispanic; (3) Hispanic; (4) American Indian or Alaskan Native; Asian, Native Hawaaiian, or Pacific Islander; and (5) multiracial. Marital status was collapsed to examine categories of presently married versus unmarried (divorced, separated, widowed, and never married). Education was represented by two categories: less than high school, and high school graduate or greater (collapsed from high school graduate, GED, some college, and college graduate and beyond). Employment status included employed (employed for wages, self-employed, student, homemaker) versus not employed (looking for employment, disabled, and retired). We gave precedence to employment when multiple selections were marked. Total household income was also included in the analyses.

2.3. Analytic plan

We used the survey package of STATA 10 (StataCorp LP, 2007) to conduct all statistical analyses, which facilitated the calculation of population-representative estimates. A Taylor series linearization adjusted the standard errors of estimates to take into account the stratified sampling methodology and survey non-response rates.

We excluded 19,272 (7.4%) respondents (from those who were linked to administrative data) who had missing data on AUDIT-C scores and calculated the prevalence of AUDIT-C scores of ≥8. Remaining analyses included only respondents with AUDIT-C scores of ≥8 and no treatment in the prior 60 days. Weighted percents and standard errors were calculated to describe sociodemographic and clinical characteristics and the rate of SUD treatment in the sample. Design-based *F* tests were used to determine if significant differences existed between veterans who received SUD treatment within one year versus those who did not. Last, we used an adjusted logistic regression model to identify characteristics that were associated with SUD treatment. AUD was included as a control variable to acknowledge that at-risk drinkers with an identified alcohol diagnosis would be more likely to receive treatment.

3. Results

An estimated 3.9% (SE = 0.08) of the VHA population had AUDIT-C scores of ≥8 (n = 10,384 SHEP respondents). A total of 225 (2.2%) of these SHEP respondents received treatment during the 60-day washout period, thus were excluded from further analyses.

3.1. Descriptive statistics

Table 1 includes population-representative descriptive statistics for veterans with AUDIT-C scores of ≥8. The majority of veterans were between the ages of 45 and 64, male; and white, not Hispanic. Most were unmarried, had an income of $30,000 or less, were not employed, and had at least a high school education. Based on medical record data, an estimated 2.5% (SE = 0.33) of veterans who were not already enrolled in VA SUD treatment (in the 60-day washout period) had received VA SUD treatment in the year prior to being surveyed. Rates of identification of past-year clinical diagnoses were approximately 23.0% (SE = 0.89) for a mental health disorder, 20.6% (SE = 0.88) for a medical disorder, 15.6% (SE = 0.78) for an alcohol use disorder, and 3.4% (SE = 0.40) for a drug use disorder.

Table 2 provides descriptive statistics for those who received SUD treatment (n = 320) and for those who did not (n = 9839) in the year after completing the AUDIT-C. Among veterans with AUDIT-C scores of ≥8, only 3.9% (SE = 0.42) received SUD treatment within VA in the year after being surveyed (not shown). Veterans who received SUD treatment were predominant within the age category of 45–65 years, and were underrepresented in the ≥65 age category. Black, not Hispanic and Hispanic veterans were overrepresented in the group that received SUD treatment, and white, not Hispanic veterans were underrepresented. Veterans who received treatment