A TRIPLE THREAT: ALCOHOL USE DISORDERS IN THE PRESENCE OF COMORBID CHRONIC PAIN CONDITIONS AND DEPRESSIVE DISORDERS
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Introduction

Patients with chronic pain conditions frequently have comorbid depression. The relationship between these conditions is often bidirectional, with the effects of one condition exacerbating the effects of the other. Alcohol use disorders (AUD) are also independently associated with both conditions.

This study aims to determine the prevalence of alcohol use disorders among patients with comorbid chronic pain conditions and depressive disorders in a nationally representative sample of US adults and ascertain the characteristics of patients with and without comorbid chronic pain conditions and depressive disorder diagnoses.

Understanding the prevalence of alcohol use disorders among patients with comorbid chronic pain and depression is of clinical importance during diagnostic evaluation and treatment planning.

Data Source

• Collaborative Psychiatric Epidemiology Surveys (CPES) from 2001-2003
• Nationally representative survey available for public use
• Most recent nationally representative survey that focuses on psychiatric conditions among people over 18 years of age in the United States

Specific Aims

1. Determine the prevalence of alcohol use disorders during the past 12 months among adults, 18 and older, in the United States who have experienced chronic pain at any time during their life and report comorbid depressive disorder(s) and chronic pain condition(s) during the past 12 months.
2. Ascertain the characteristics of adults, 18 and older, in the United States who have experienced chronic pain at any time during their life and report comorbid chronic pain conditions, depressive disorders, and alcohol use disorders during the past 12 months, among people with chronic pain at any time during their life.

Notes

• Initially the exposure included four categories.
• No past 12 month chronic pain condition but past 12 month depressive disorder category
• No observed cases of alcohol use disorder
• Only 45 observations
• The reference group is participants reporting a chronic pain condition during their lifetime but not during the past 12 months, due to survey methodology.
• All analyses used procedures for complex survey data

References


Results

Logistic Regression Analyzes of Alcohol Use Disorders and Comorbid Chronic Pain and Depressive Disorders.

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<tr>
<th>Parameter</th>
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<th>Standard Error</th>
<th>95% Confidence Limits</th>
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CP-Chronic pain condition, DD=Depressive disorder
Reference-= DD, -CP, FHHD=Family history of depressive disorder

Data Analysis

Descriptive Analysis

• Frequency distributions by exposure category
• Assess normality of continuous variables and quantify missing data

Identify Confounders

• Check the three a priori criteria for each potential confounding variable using a series of bivariate models
• Potential confounding variables: age, sex, race/ethnicity, education level, smoking status, male/female childhood caregiver experiencing periods of sadness for 2+ weeks, marital status, and region of residence.

Logistic Regression

• Fit multivariable logistic regression models
• Model explanations
  • Crude model: unadjusted for confounding variables
  • Standard model: adjusted for important potential confounding variables, irrespective of a priori criteria for confounding.
  • Adjusted model: includes only confounding variables achieving statistical significance in the standard model.

Discussion

Results:

• No statistically significant association between alcohol use disorder and patients with comorbid chronic pain and depression. This holds for all three models.
• Although not statistically significant, the crude model and the adjusted model show elevated odds of alcohol use disorders for participants with comorbid depression and chronic pain compared to those without either condition.
• Although many variables met the a priori criteria for confounding, only age was a significant predictor of alcohol use disorder (adjusted model).
• The odds ratio for participants with only chronic pain is less than 1 in all models, suggesting that this population has lower odds of alcohol use disorders than the population without either condition. Although not statistically significant, this is unexpected.

Limitations:

• Small cell sizes after grouping by exposure.
• Prevalence of alcohol use disorders in study population is 1.08%, but was 8.46% in the full population (2001-2002).
• Cross-sectional data, so temporality and true comorbidity cannot be established definitively.
• Self-report data via trained interviewer.

Directions for future research:

• Effect of chronic pain severity on outcome
• Effect of order of diagnosis of exposure conditions

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