

Title

Exploring gender differences in the association between alcohol use and depression among emergency department patients

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Keywords

Depression, alcohol, gender, emergency department

Abstract

Introduction

High rates of depression are common among individuals with alcohol dependence (Conner et al, 2009), and this co-morbidity is more hazardous than either alcohol abuse or depression alone. Additionally, alcohol dependent women are twice as likely to be depressed compared to alcohol dependent men (48% vs. 24%) (Lejoyeux & Lehert, 2010). It is known that Emergency department (ED) populations have high rates of alcohol abuse, and it has been estimated that 1 in 5 ED patients is depressed (Bazargan-Hejazi et. al., 2008). However, few studies have examined the correlation between these two conditions among ED patients (Shahrzad et. al., 2007). Early assessment, intervention, and treatment referral in the ED could prevent future health complications and societal costs related to the co-occurrence of alcohol abuse and depression.

Methods

Patients (18 years or older) entering the emergency department (ED) at Grady Health System in Atlanta, Georgia or The Medical Center of Central Georgia in Macon, Georgia screened at risk for alcohol and substance abuse and were asked questions about their mental health. The current study examines the association between level of risk for alcohol abuse and past 30-day “days of depression” among a sample of emergency department patients who screened “at risk” for alcohol abuse. Additionally, this study examines how this relationship changes by gender.

Results

Analyses show an overall correlation between risk level and depression days ($r=0.21$, $p<0.001$) with a larger correlation among males ($r=0.26$, $p<0.001$) compared to females ($r=0.15$, $p<0.001$). However, women with no or low alcohol use risk report significantly more days of depression than men with no or low alcohol use risk. This gender difference in days of depression disappears at higher alcohol use risk levels.

Conclusion

Based on the correlation analysis, men appear to have a stronger relationship between risk level and depression days than women; However, upon further investigation, women appear to have a j-shaped relationship between risk level and days of depression, whereas men appear to have a more linear relationship between these variables. These results can inform ED mental health treatment providers to better identify and treat both conditions.