



# The Relationship between Personal Income, Gender, and Likelihood of Seeking Help for Excessive Alcohol Use



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## Introduction

- Alcohol is one of the most commonly used substances in the world with individuals over the age of 12 having used alcohol in a year more than any other drug or substance in the United States (National Institute on Drug Abuse, 2024).
- Excessive alcohol use, when left untreated can increase the risk of developing Alcohol Use Disorder (AUD)— a chronic brain disease that is defined as the inability to stop or control alcohol intake despite being aware of the consequences (Yale Medicine, 2024 & National Institute of Alcohol Abuse and Alcoholism, 2024).
- Multiple forms of psychosocial and pharmacological treatments exist for alcohol related diseases today— with psychosocial treatments such as 12-step programs being the most prevalent among individuals with AUD (Venegas. Et al, 2021).
- Research surrounding substance use, for example AUD, show a significant treatment gap across different genders, ethnic/racial groups, and economic backgrounds (Zewdu. Et al, 2019 & Karriker-Jaffe & Bensely, 2023 & Venegas. Et al, 2021).

## Methods

### Sample

- Data was drawn from a pool of 43,093 adults who participated in the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC-wave 1) study conducted in the United States between 2001 and 2002.
- The sample size includes 2036 individuals who were classified as heavy drinkers.

### Measures

- Excessive alcohol use was measured based how often participants consumed 5 or more alcoholic drinks (participated in binge drinking) over a 12-month period
- Personal Income status was measured based on;
  - “Total personal income in last 12 months: category”,
- Seeking help was measured based on whether participants “ever sought help because of drinking”.
- Participants self-recorded their sex/gender

## Research Questions

- How does personal income influence help-seeking behaviors in individuals with excessive alcohol use?
- What is the relationship between gender and the likelihood of seeking help for chronic alcohol consumption?
- What is the association between personal income and help-seeking behaviors for substance misuse like alcohol across different genders?

## Results

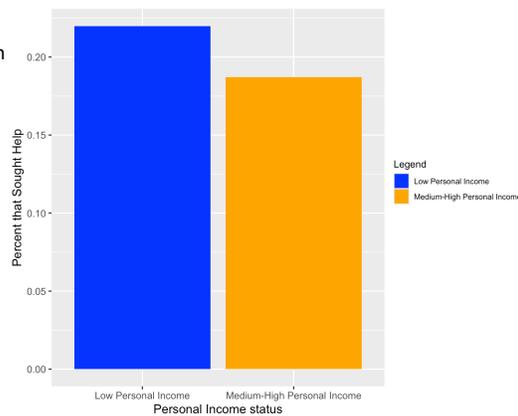
Univariate: Out of a total of 2036 participants

- Personal Income status: 54.32% were classified as individuals with a low personal income, and 45.68% were classified as having medium-high personal income
- Gender: 79.17% were males and 20.83% were females
- Likelihood of seeking help: 79.5% of individuals who were categorized as heavy drinkers did not seek help, while 20.5% sought assistance for drinking

Bivariate:

A chi-squared test showed that while a greater number of individuals with low personal income sought help for excessive alcohol consumption in comparison to individuals with medium-high personal income, the relationship was not statistically significant ( $\chi^2 = 3.0847$ ,  $df = 1$ ,  $p = 0.07903$ ).

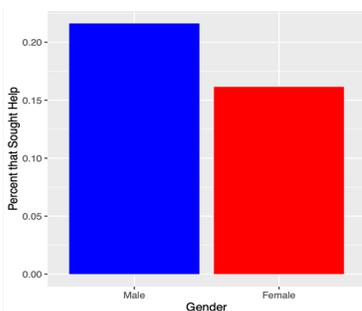
Figure 1. Likelihood of seeking help across different personal income status.



## Discussion

- While it was hypothesized that medium-high personal income individuals would be more inclined to seek help because they can afford multiple treatment options, more low personal income individuals sought help for excessive drinking, although not statistically significant.
- Study showed that males with low-personal income sought help more than males with medium-high personal income status, and females.
- These findings help to understand the fact that there might be other factors contributing to the wide treatment gap for alcohol use beyond treatment affordability.
- Further studies would investigate the specific reasons why males and individuals with low personal income tend to seek treatment more, in order to better understand the patterns in help-seeking behaviors for substance use.
- This could help in understanding how treatment options are presented to the public and designing better health care polices for individuals actively seeking help for substance use.

Figure 2. Likelihood of seeking help between males and females



- Chi-squared test shows a significant relationship between gender and the likelihood of seeking help for excessive alcohol use ( $\chi^2 = 5.8243$ ,  $df = 1$ ,  $p\text{-value} = 0.01581$ ). Males are more likely to seek help in comparison to females.

Multivariate:

- A multiple logistic regression test revealed that personal income (OR = 0.77, CI = [0.612- 0.96],  $p = 0.02294$ ) becomes significantly associated with the likelihood of seeking help for AUD after controlling for gender. Individuals with medium-high personal income have an expected odds of seeking help that is 23% lower than those with low personal income when gender is accounted for. Females have an expected odds of seeking help that is 34% lower than males regardless of their personal income status.
- While the interaction term ( $p = 0.3839$ ) indicates that gender does not modify the relationship between personal income and the likelihood of seeking help, gender was a confounder of the relationship.

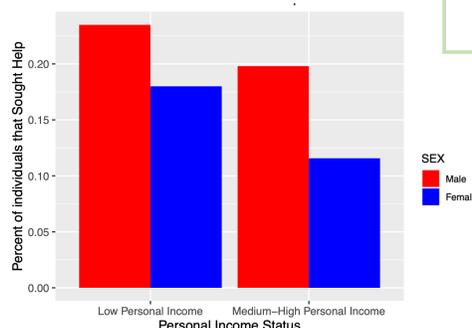


Figure 3. Sex Differences in the Relationship Between Personal Income and the Likelihood of Seeking Treatment for excessive alcohol consumption

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