



# The Association Between Onset Age of Social Anxiety and Alcohol Consumed per Session Among United States Adult Drinkers

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## INTRODUCTION

- Most Americans partake in alcohol consumption at least once in their life and 6.7% develop alcohol use disorder (AUD) (CDC, 2025).
- Self-Medication Hypothesis:** Stipulates that individuals use substances to alleviate psychological disorders (Carrigan & Randle, 2003, Rosenström & Torvik, 2023).
- Researchers turned to studying anxiety disorders as a precursor to the development of alcohol use disorders
- A study revealed that 48% of individuals with a social anxiety disorder diagnosis (SAD) also met the criteria for an AUD diagnosis (Grant et al., 2005).
- Amount of alcohol consumption is widely recognized as a risk factor in the development of AUD (Carr et al., 2024).
- Early onset (< 18 years old) of social anxiety worsens severity of symptoms, highlighting age as a key factor (Koyuncu et al., 2015).
- Gap in Literature:** Despite evidence linking social anxiety to the development of AUD, the specific, context-dependent features of individuals' socially anxious experiences, such as age of social anxiety onset, that drive alcohol use remain unclear and require further investigation (Dyer et al., 2019).

## METHODS

### Sample

- Nationally representative group of non-institutionalized United States civilian adults (n=3258) were analyzed from the 2012 National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARCIII)

### Measures

- Alcohol consumption per drinking session was assessed with the item, "What is the number of drinks usually consumed on days where you drank alcohol in the last 12 months?" .
- Social anxiety onset age was assessed with the item, "About how old were you the FIRST time you BEGAN to experience a strong fear, anxiety or avoidance of any social situation?".
- Participants were categorized by age of social anxiety onset
  - Childhood:** <12 years old
  - Adolescence:** 12-18 years old
  - Adulthood:** >18 years old
- A binary covariate, fear of embarrassment, was coded dichotomously ("yes" or "no").

## RESEARCH QUESTION

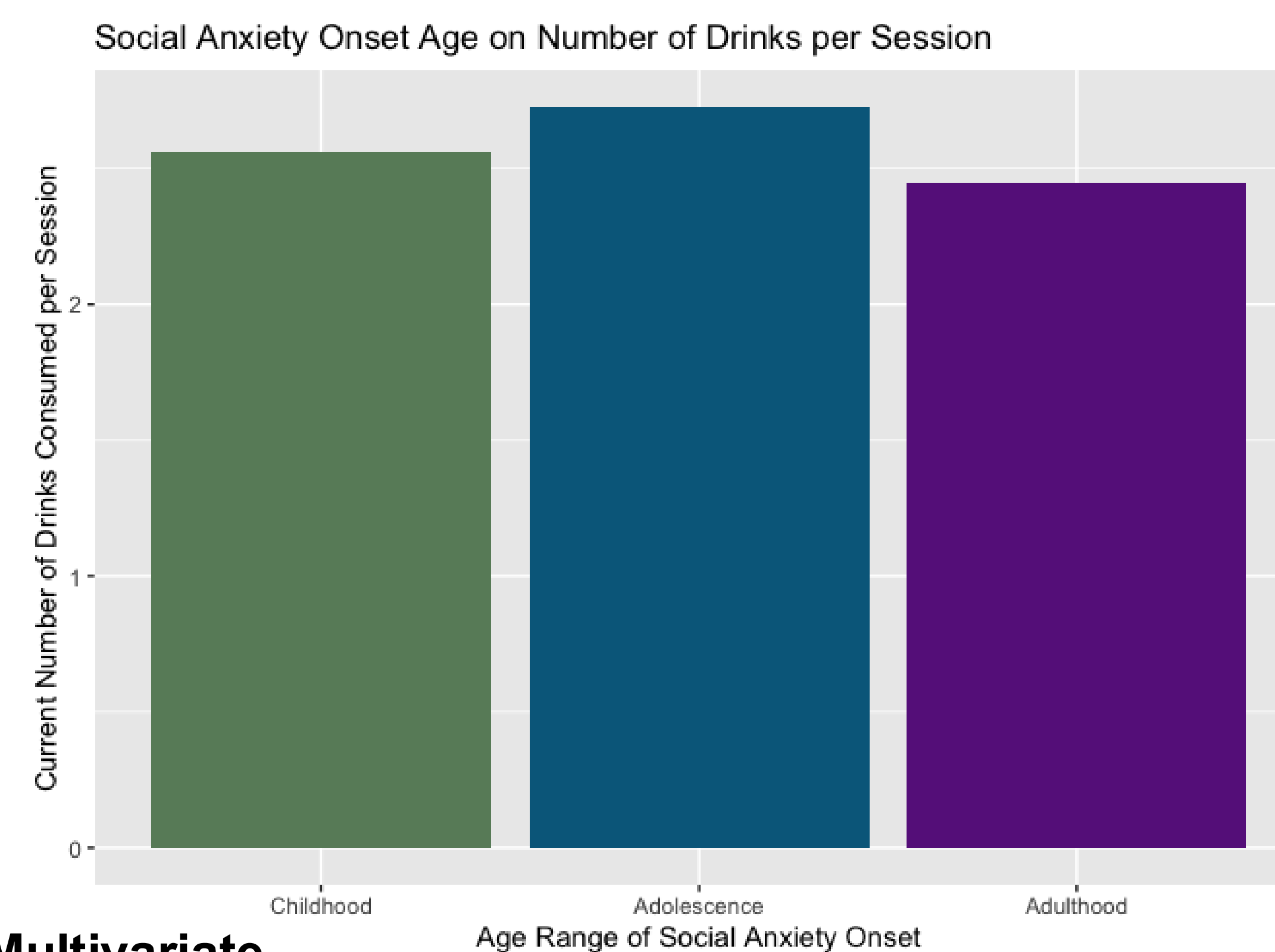
- Is there an association between onset age of social anxiety and alcohol consumed per session for adult drinkers in the united States?
- Does this association still hold when controlling for covariates?

## RESULTS

### Bivariate

- One-way ANOVA revealed significant effect of social anxiety onset age on number of drinks consumed per session ( $F(2,3255)=3.261$ ,  $p=.0385$ ).
- Tukey's Post hoc reveals that individuals with social anxiety onset in adolescence consumed more drinks on average (Mean=2.79,  $sd=4.03$ ) per session than those with social anxiety onset in adulthood (Mean=2.45,  $sd=2.50$ ).
- Social anxiety onset in childhood revealed no significant differences.

**Figure 1.** Bar Plot of Drinks Consumed per Session by Social Anxiety Onset Age Group

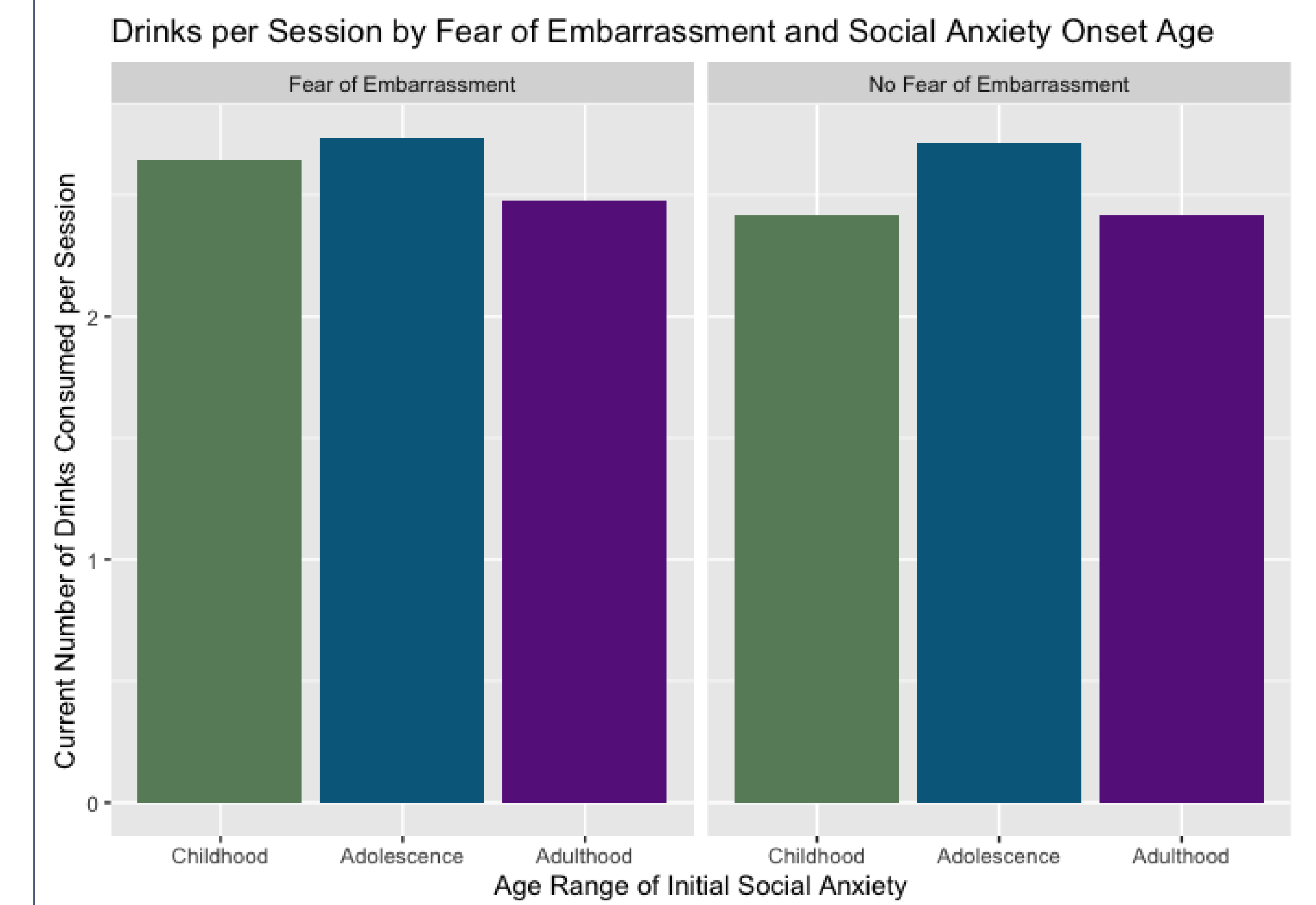


### Multivariate

- Multiple linear regression revealed a significant effect of social anxiety onset age on number of drinks consumed per session when controlling for fear of embarrassment. Participants who first experienced social anxiety in adulthood (Beta=-.33,  $p=.0162$ ) drink, on average, 0.33 fewer drinks per session than those whose social anxiety began in adolescence.

- The pattern of age range differences does not change across fear of embarrassment groups. No significant difference between age range of Childhood - Adolescence or Childhood - Adulthood.

**Figure 2.** Bar Plot of Drinks Consumed per Session by Social Anxiety Onset Age Group and Fear of Embarrassment



## DISCUSSION

- Individuals that first experienced social anxiety in adolescence, but not childhood, drink significantly more on average than individuals that first experienced social anxiety in adulthood.
- Fear of embarrassment does not reduce the effect of onset age of social anxiety on number of drinks consumed, however, this does not suggest a causal relationship between age of first social anxiety and drinking habits.
- Future work must look at other characteristics of social anxiety disorder, as characteristics of social anxiety emerge differently across individuals.

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