

The Bi-directional Relationship between Craving and Alcohol Consumption as Measured via Interactive Voice Response

Health and Biological Sciences

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Background

Craving is a central component in alcohol use disorders

Mixed results on craving-drinking relationship

Few longitudinal studies on craving-drinking

Study Objectives

To evaluate:

- the daily occurrence of craving and drinking prospectively
- the bi-directional relationship between craving and drinking
- moderating effects of gender on the craving-drinking relationship

Methods

1. Heavy drinking patients received a brief alcohol intervention from primary care providers
2. Participants made daily calls to an automated, interactive voice response (IVR) for 6 months

Analysis

Longitudinal regression analysis using Generalized Estimating Equations (GEE) which allows for within participant correlations from daily reports.

Confounders controlled for in models: gender, alcohol dependency, depression medication, time in study (days 1-180), day of week, daily psychological variables.

Results

Craving intensity rating

Day X



Next day total drinks

Day X + 1

A one point higher craving rating resulted in an average of .15 more drinks the next day, controlling for covariates ($p < .001$).

Total drinks

Day X



Next day craving intensity rating

Day X + 1

Every one drink increase resulted in an average of .02 higher craving rating the next day, controlling for covariates ($p < .02$).

Gender significantly moderated the craving-drinking relationship ($p = .002$), whereas men increased their drinking the next day ($b = .19$, $p = .005$) more than women ($b = .08$, $p = .001$).

Discussion

•A bi-directional craving-drinking relationship may be one factor that increases heavy drinking and craving symptomatology over time.

•Based on our findings, we recommend that primary care physicians discuss craving with patients when providing advice for decreasing drinking.



President E. Thomas Sullivan
Presidential Installation Ceremony
Student Scholars Poster Competition
University of Vermont, October 2012

Project Description

The study examined the daily occurrence of craving and the relationship between craving and alcohol consumption in heavy drinkers who received advice from a primary care physician to decrease their alcohol consumption.

- This study used novel interactive voice response (IVR) telephone technology to measure daily craving and alcohol consumption for 180 days. Thus, we reached across experimental and clinical research areas to accomplish our study goals.
- This study was the first in the literature to evaluate the bi-directional relationship between craving and alcohol consumption. Our findings improve the field's understanding of the complex relationship between craving and drinking.
- The National Institute on Alcohol Abuse and Alcoholism provides primary care physicians guidelines for advising patients to decrease their drinking. These guidelines do not currently address craving. Based on our findings, we recommend that physicians discuss craving with patients when providing advice for decreasing drinking.

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