

VAGELOS COLLEGE OF PHYSICIANS & SURGEONS

PROGRAM FOR EDUCATION IN GLOBAL AND POPULATION HEALTH

# **Mediating Effect of Alcohol Use: Retirement and Mental Health in the United States**

Julián Ponce, MPH candidate, Columbia University Mailman School of Public Health Antonia Díaz-Valdés Iriarte, Ph.D., MSW, Assistant Professor of Universidad Mayor (CISS)



Research Questions: What is the effect of retirement on depression among older adults? How do individual conditions influence depression? Does alcohol mediate the association?

### **BACKGROUND**

- The world and United States are rapidly aging, & alcohol consumption is increasing among older adults.<sup>1, 2</sup>
- Alcohol could be a potential form of self medication to cope with the mental health issues that arise from the retirement transition.<sup>3</sup>
- There are few studies that focus on how the retirement transition affects alcohol consumption & mental health outcomes.
- Understanding this relationship is important in creating policies that support the health of older adults.

## **DESCRIPTION OF ORGANIZATION**

The mission of the Society and Health Research Center located in Santiago, Chile at Universidad Mayor is to advance well-being at the individual, social, and institutional levels in context of global demographic, epidemiological, technological, and environmental change.

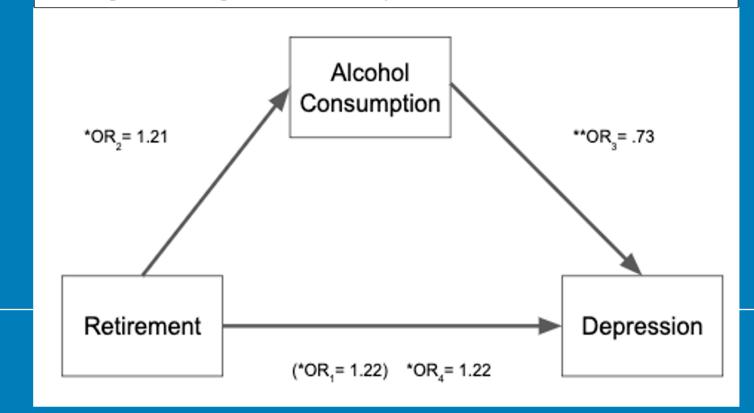
#### **METHODS**

- Cross sectional data on n=11,351 older adults (ages 62+) from the 2016 wave of the Rand Health and Retirement Study (HRS).
- Data was analyzed using Stata SE 15.0
- Variables of interest were identified and recoded to fit study.
- Logistic regression was used to examine association of predictors and depression (yes/no).
- Barron and Kenny Approach was used for mediation analysis.

### **TABLES & FIGURES**

Table 1. Adjusted Odds ratios (OR) of Logistic Regression for Depression			
Predictors	OR	(95% CI)	
Retirement (1=retired)	1.22*	(1.02-1.45)	
Age (years)	.99	(.99 - 1.00)	
Gender (1=female)	1.30***	(1.15-1.45)	
Race			
Black NH	1.01	(.88-1.16)	
Hispanic	1.06	(.90-1.26)	
<b>Education Level</b>			
High School Graduate or GED	.76***	(.6588)	
Some College	.80**	(.6893)	
College and Above	.70***	(.5984)	
Married (1=married)	.58***	(.5265)	
Disability Episodes			
Any disability	1.81***	(1.58-2.07)	
Baseline Subjective Health Status (BHS)			
Good, Excellent, or Very good	.23***	(.2126)	
Alcohol Consumption			
Moderate Drinker	.73***	(.6385)	
Heavy Drinker	.94	(.78-1.13)	
Binge Drinker	1.45*	(1.01-2.07)	
Note: $p < .05$ , $p < .01$ , $p < .00$	1		

**Figure 1.** A model of the mediation analysis between retirement, alcohol consumption, and depression controlling for covariates in table 1.



#### RESULTS

- Those who are retired have 22% higher odds of depression compared to those who are not retired.
- Protective factors for depression Include education level, marriage, & moderate alcohol consumption.
- Binge drinkers, women, those who reported a disability episode or reported poor or fair health have higher odds of depression.
- Alcohol does not mediate the association between retirement and depression.

### DISCUSSION

- Additional longitudinal studies should be conducted in order to best understand the relationship between retirement, alcohol consumption, and depression.
- The findings supports existing literature regarding protective and risk factors for depression among older adults.
- Adds to limited literature on protective association of moderate drinking
   & harmful effects of binge drinking among older adults.
- Meditation results urge us to explore other variables that can explain relationship between retirement and depression.

#### **REFERENCES**

1. Ortman JM, Velkoff VA, Hogan H. (2014) US Census Bureau. An aging nation: the older population in the United States. Available at: https://www.census.gov/prod/2014/pubs/p25-1140/pdf. Accessed 5 June 2020.

2. Grucza RA, Sher KJ, Kerr WC, Krauss MJ, Lui CK, McDowell YE, HartzS, Virdi G, Bierut LJ (2018) Trends in adult alcohol use and binge drinking in the early 21st-century United States: a meta-analysis of 6 national sur-vey series.

Alcohol Clin Exp Res 42:1939–1950

3. Khantzian, E. J. (1997). The self-medication hypothesis of substance use disorders: A reconsideration and recent applications. Harvard Review of Psychiatry, 4(5), 231–244. <u>United States, 2013–2016. NCHS Data Brief, no 303.</u> <u>Hyattsville, MD: National Center for Health Statistics.</u>

# **Acknowledgements:**

Gracias Professor Antonia Díaz-Valdés Iriarte for your continued support from across the hemisphere. Thank you to RAND HRS for the data, Ana Jimenez at the Mailman Office of Field Practice, & the Global Pop Program Tania Genel, Sofia Tinio, Kim Hekimian, Lawrence Stanberry, & Neil Schluger.

Note:  $OR_1$  = relationship between retirement and depression without potential mediator. $OR_2$  = relationship between retirement and alcohol consumption. $OR_3$  = relationship between alcohol consumption & depression controlling for retirement.  $OR_4$  = relationship between retirement and depression controlling for alcohol consumption. \*p < .05, \*\* p <