INSOMNIA AND ALCOHOL USE AS PREDICTORS OF HEARTRATE VARIABILITY AMONG VETERANS

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INTRODUCTION

-Low heart-rate variability (HRV) is an indicator of autonomic dysfunction.

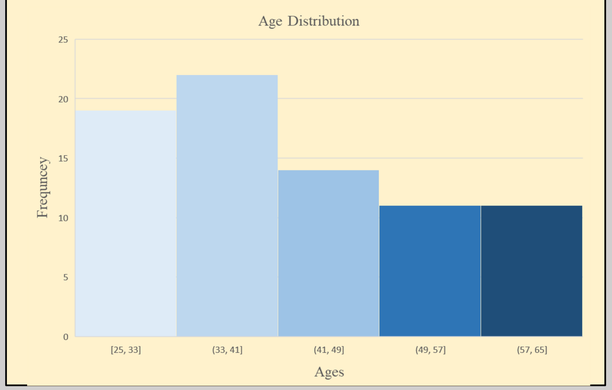
-Low HRV has been linked to adverse cardiovascular outcomes.

-Low HRV has also been implicated in both alcohol use and sleep disorders.

HYPOTHESIS:
Heavier alcohol use and more severe insomnia will be associated with autonomic dysfunction (low HRV).

DEMOGRAPHICS

N=77: 86% female, 88% White, 65% VA



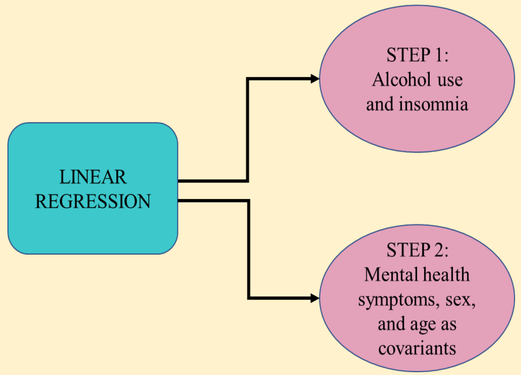
METHODS

-Veterans were recruited to participate in an insomnia treatment study through the community and the VA.

-Participants completed in-lab Holter monitoring (scored using RMSSD).

-Self-report measures included Alcohol Use Disorders Identification Test (AUDIT) and Insomnia Severity Index (ISI).

-Stepwise linear regression was used to test the association between alcohol use, insomnia, and HRV.



RESULTS

STEP 1: Predictors accounted for 5% of the variance in HRV *[F(2,74)=3.13, p=.04]*

Predictor	*β*	*p*
Insomnia severity	-0.27	.02
Alcohol use	-0.03	.77

STEP 2: Predictors accounted for 18% of variance *[F(7,69)=3.41, p=.0031]*

Predictor	*β*	*p*
Insomnia severity	-0.22	.09
Alcohol use	0.14	.30
Female (vs male)	0.26	.02
Age	-0.38	.004
PTSD (PCL)	0.06	.67
Depression (PHQ)	0.18	.34
Anxiety (GAD)	-0.18	.35

CONCLUSIONS

-Women and older adults reported more autonomic dysfunction.

-Alcohol is not a significant predictor of HRV when controlling for other mental health symptoms.

-Insomnia severity is no longer associated with HRV when accounting for sex and age.

FUTURE DIRECTIONS

-Acute alcohol consumption may have different effect on HRV than chronic alcohol use or alcohol use assessed over longer periods of time (e.g., past year).

-Future studies may test differential associations in diverse samples.