

Alexus LaPlante<sup>1</sup>, Mia Navarro<sup>1</sup>, Josh Ryland<sup>1</sup>, Ericka Horne, DrPH<sup>2</sup>, Affan Ghaffari, PhD<sup>3</sup>, and Shermeeka Hogans-Mathews, MD<sup>2</sup>

<sup>1</sup>Florida State University Undergraduate Research Opportunity Program, <sup>2</sup>College of Medicine Department of Family Medicine & Rural Health, <sup>3</sup>College of Medicine Behavioral Sciences and Social Medicine

## Introduction/Background

- Anxiety and depression are large contributors to the decline of global mental health, and long-term stress has demonstrated that it negatively impacts physiological and psychological health. (WHO, 2023; Cohen et al., 2007; NIMH, n.d.)
- In the United States Virgin Islands (USVI), stressors including natural disaster experiences (ex. Hurricanes), limitations to access to healthcare, substance use (alcohol included), and socioeconomic strain might substantially impact quality of life. (CDC, 2026; SAMHSA, 2025)
- Goal = Our research goal is to investigate the relationship between the quality of life of adults in this region and perceived stress.

## Methods

- This research project utilized nationally-representative and cross-sectional data taken from the 2022 Behavioral Risk Factor Surveillance System (BRFSS).
- The sample that was analyzed consisted of adults that are residents of the United States Virgin Islands (n = 1,531).
- Alcohol consumption and perceived stress (Always/Usually/Sometimes vs Rarely/Never) were included as the predictor variables for this analysis.
- Heavy alcohol consumption for men was specified as  $\geq 14$  drinks within a week and for women it was  $\geq 7$  drinks within a week.
- Outcome variables for this project, that define quality of life, consisted of emotional support, life satisfaction, and social isolation.
- Covariates that were controlled for include race/ethnicity, sex, status of insurance, and level of education.
- Within the software Stata 14.0 multiple logistic regression model was conducted, with significance testing, in order to approximate the relationship between the predictor variables with all of the outcome variables.
- The level of significance was set at  $p < .05$ .

## Results

**Table 1. Demographics and Health Characteristics of USVI Adult Survey Respondents (n=1531)**

	Number(#)	Percentage(%)
Gender		
Male	670	44
Female	861	56
Characteristics		
Reporting stress	448	34
Reported heavy drinker	81	6

Table 1

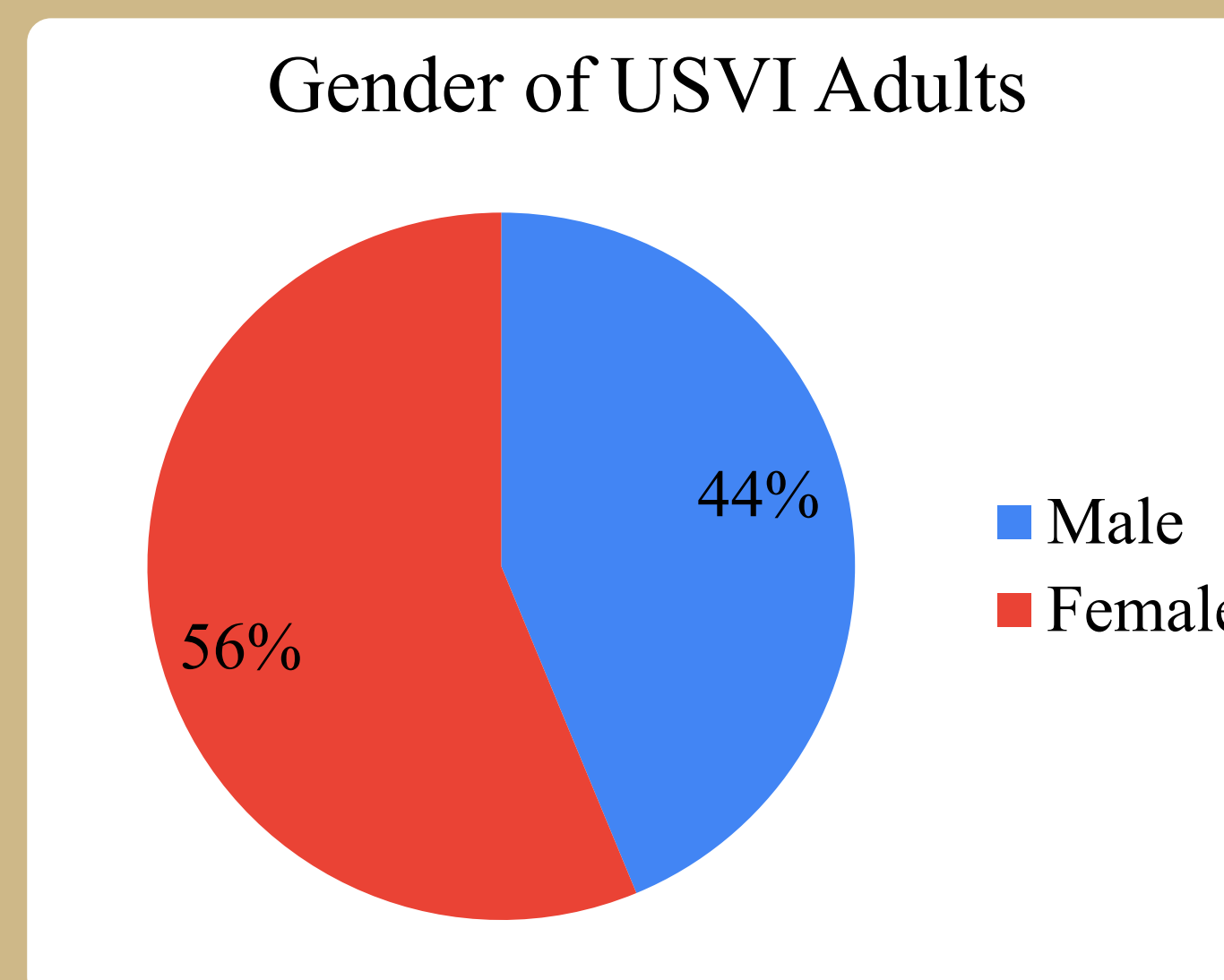


Figure 1

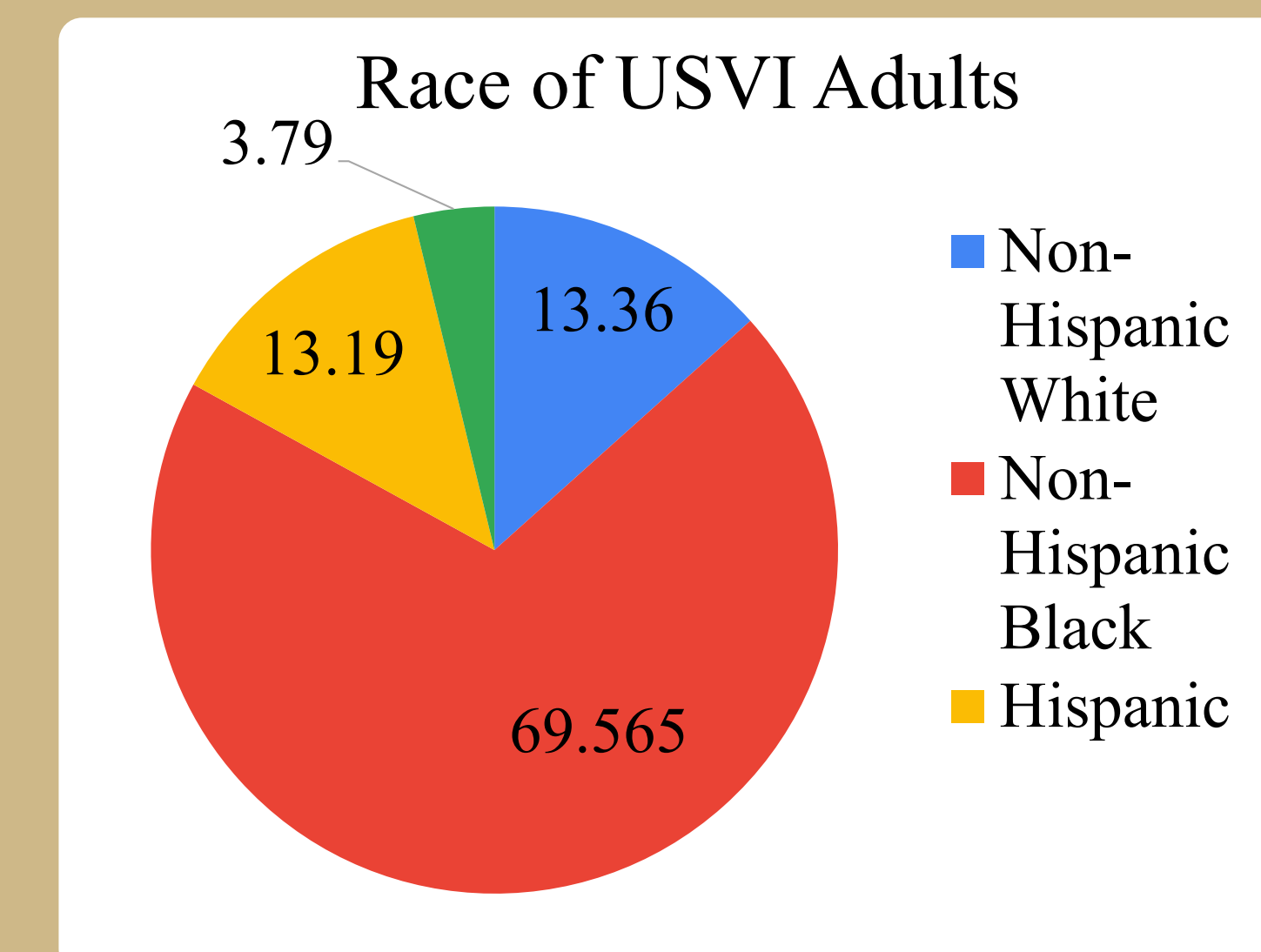


Figure 2

## Odds Ratios for Life Satisfaction, Social Isolation, and Emotional Support Among USVI Adults

Variable	Life Satisfaction (OR)	Social Isolation (OR)	Emotional Support (OR)
Current Stress Level (Always/Usually/Sometimes)	0.04***	4.30***	0.22**
Drink Anytime (Yes)	0.51	1.68	1.04
Race (Reference: White)			
Black, Non-Hispanic	5.43**	0.81	0.95
Hispanic	6.71	0.62	2.03
Other Race	370.21**	0.07**	9.24

Table 2

\*p < 0.05  
\*\* p < 0.01  
\*\*\* p < 0.001

## Discussion

### Sample characteristics

- Majority female (56%)
- Predominantly Black, Non-Hispanic (~70%)
- 1/3 college graduates
- Over half were either uninsured or publicly insured
- Almost half (46%) reported alcohol use in the past 30 days
- 1/3 reported elevated stress
- There is a high portion of the population with public insurance and a low level of education which may influence stress and overall stress and life satisfaction. These characteristics provide context for the socioeconomic demographics of our sample.

### Important findings:

- Stress was significantly associated with
- 96% lower odds of life satisfaction
- 330% higher odds of social isolation
- 78% lower odds of perceived emotional support
- Stress was the most consistent and strongest predictor across all outcomes.

These findings are consistent across all models and suggest that stress is not just related to mental health but is also linked to social connection, perceived support and overall life satisfaction.

### Alcohol association:

- not significantly associated with
- Life satisfaction
- Social isolation
- Emotional support

Despite nearly half reported drinking there was no statistical significance between alcohol consumption and perceived well being among this population. However, the measure of "any use" may not effectively capture the frequency or intensity of drinking. It is also important to keep in mind that moderate social drinking is considered a cultural normality and not harmful among our sample population. Additionally, stress may overshadow the effects of alcohol. These are important to consider because null findings may still be informative and call for greater more specific research.

### Public health implications:

- Results may suggest:
- Stress reduction interventions may significantly improve life satisfaction
- Community based mental health programs may reduce isolation.
- Targeted interventions in economically vulnerable groups may be beneficial.

### Limitations

- Self-reported data
- Some subgroups were small
- The study did not assess adverse childhood experiences (ACEs). Future research should examine ACES to better understand the connection between early life trauma, chronic stress, and life satisfaction

