“Racial Disparities in Associations of Stress with Increased Risk of Coronary Heart Disease: A Survey Study within an Urban Emergency Department”

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LSU Health NEW ORLEANS School of Medicine

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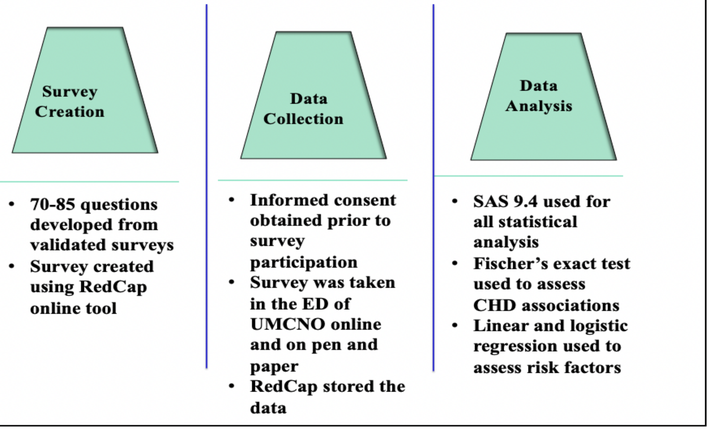
Background

- The Centers for Disease Control and Prevention reports Coronary Heart Disease (CHD) as the most common type of heart disease, and it accounts for more than 365,000 deaths
- Stress overtime can harmfully impact the cardiovascular system, and has been associated with increased risk to developing CHD
- Disparities in health by race and ethnicity contribute to structural barriers in health care and to unequal disease rates and incidences and prevalence of CHD
- In the United States, African Americans are more frequently exposed to those kind of stressors because of their social and economic background
- Psychosocial stress, perceived stress, and social factors play a role in predisposing individuals to the development of CHD, especially in minorities
- While studies have assessed work-related or occupational stress, empirical data linking stress and increased CHD risks among patients, ancillary staff, medical students, nurses, and physicians within the Emergency Department (ED) is limited
- This study aims to identify this association and determine if race and other risk factors are a modifier of stress related to increased risk of developing CHD reported in the ED during emergency care

Objectives

- Assess the racial disparities in perceived stress and risk of developing CHD
- Assess the effect of race, age, gender, and discrimination as a moderator on stress affecting the risk of CHD

Methods



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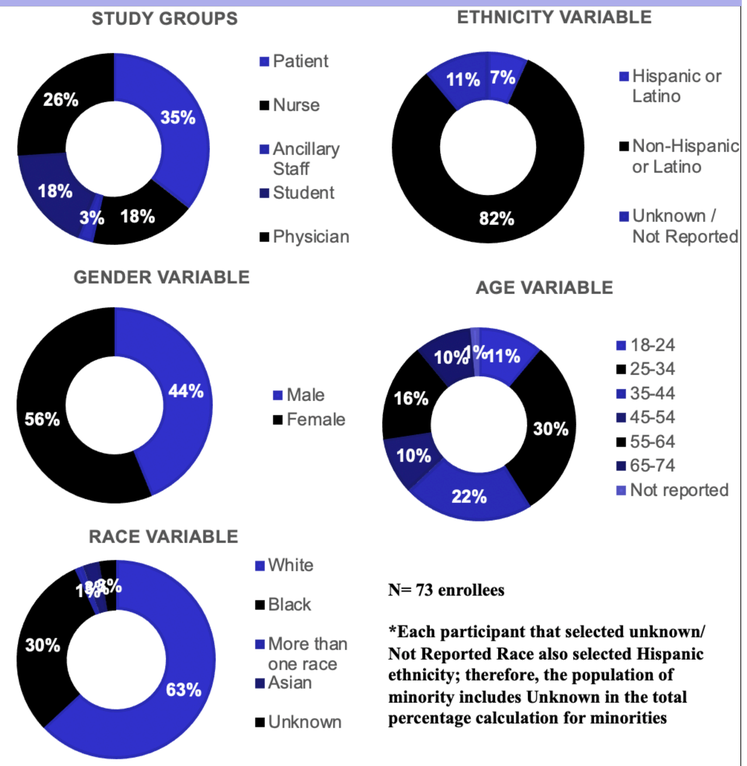

N= 73 enrollees

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CHD and Discrimination

Frequency of CHD among respondents

CHD Score	Frequency	Percent
Low (<6)	35	47.9%
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CHD Scores in reference to reason for discrimination (gender)

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P=0.0475

- Among those who have high CHD, 24% felt they were being discriminated against with regards to gender, compared to the 76% who felt they were not being discriminated against.
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Outcomes of moderate and low perceived stress scores were reported. Findings show that males, age groups 35-44, Asian individuals, and nurses had the highest average of mean scores.

Parameter	Estimate	Wald 95% Confidence Limit	Pr > ChiSq
Intercept	1.1992	(-2.2744- 4.6728)	0.4986
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PSS Score	0.0885	(-0.0341- 0.2110)	0.1570

Discussion and Conclusions

Overall, the findings show that perceived stress is not a risk factor for developing CHD reported by patients, ancillary staff, nurses, students, and physicians in an emergent setting (p=0.1570). Though 52.1% reported high scores for risk of CHD in reference to discrimination as a risk factor with regards to gender, these findings were not statistically significant (p=.0475) . Using logistic regression, perceived stress scores and discrimination were not statistically significant. However, linear regression with an interaction term showed age to be statistically significant (p=0.0031) and being black as a risk factor (p=0.0214) to developing CHD The statistically insignificant results may be due to the small sample size. Since this is an interim analysis, further exploration is necessary to determine if the validated tools fully reflect overall stress. In addition, we will need to assess what role resilience plays in one's self reported level of perceived stress.

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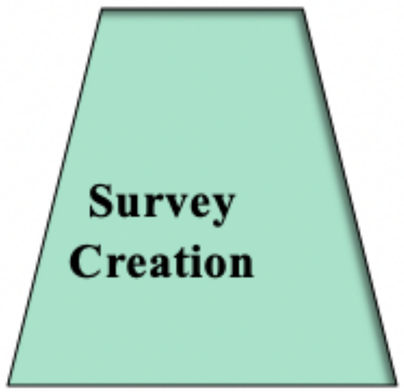

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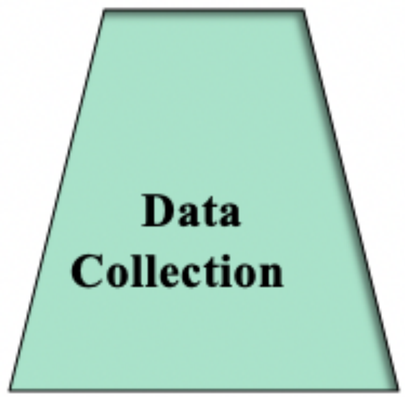

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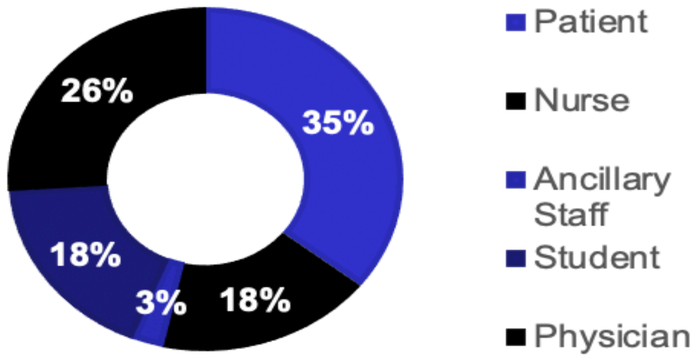
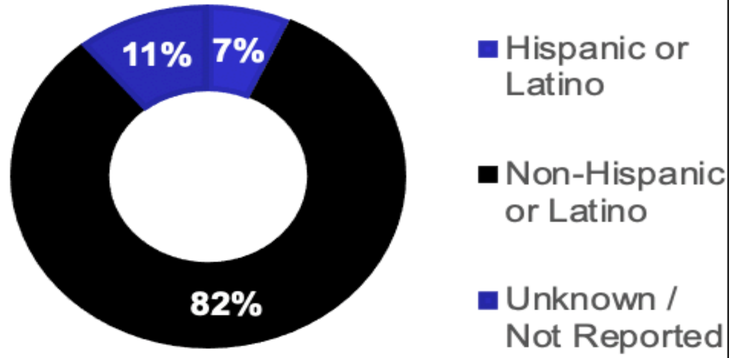
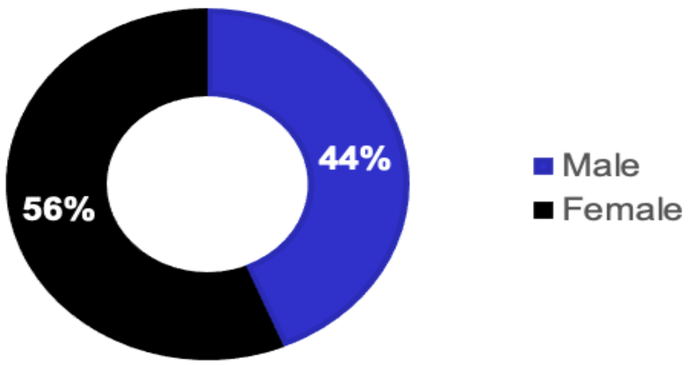
STUDY GROUPS



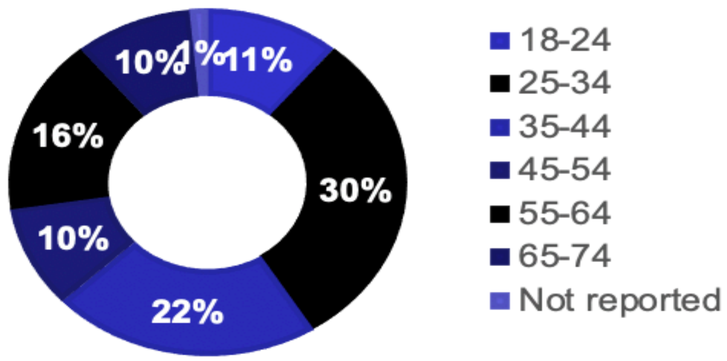
ETHNICITY VARIABLE



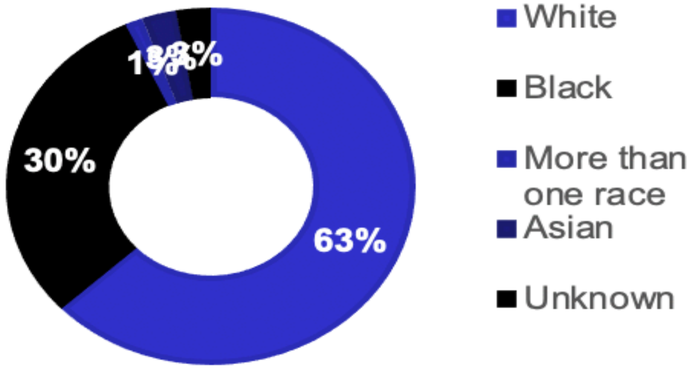
GENDER VARIABLE



AGE VARIABLE



RACE VARIABLE



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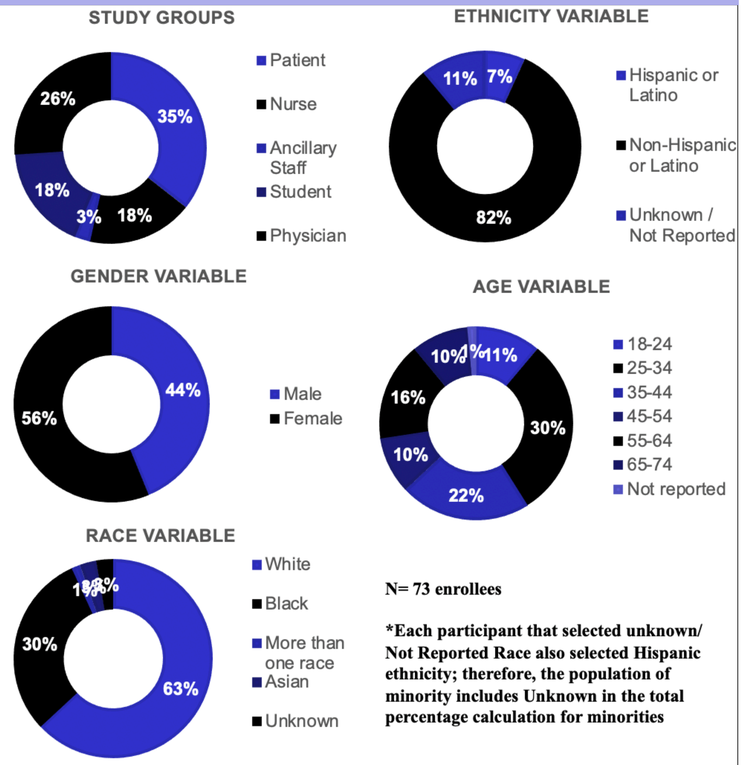

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