

**Sigma's 30th International Nursing Research Congress
Influence of Social Determinants of Health on Emergency Department Visits
Among Individuals With Cardiovascular Disease**

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Purpose: Coronary heart disease (CHD) and stroke are leading causes of morbidity and mortality in the U.S. Over 92 million Americans have been diagnosed with CHD/stroke and have more costly emergency department (ED) visits to manage acute and chronic symptoms. These visits are often attributed to poor access to primary care, advanced age, and poor social support. Social determinants of health (SDoH) have been suggested for a variety of health outcomes, yet their relation to healthcare utilization such as ED visits among individuals with CHD/stroke is unclear. We hypothesized that SDoH would be associated with having ≥ 1 ED visit(s) in the prior 12 months among patients with CHD and stroke.

Methods: A cross-sectional analysis of the 2010-2016 National Health Interview Survey was conducted among those who self-reported CHD/stroke diagnosis. Logistic regression analyses were performed with the outcome reporting ≥ 1 ED visit for any reason in the prior 12 months. SDoH examined were race, employment status, poverty, insurance status, and marital status.

Results: We included 6,930 participants with diagnosis of CHD/stroke. The mean age (\pm sd) was 67.09 (\pm 0.10) years. After adjusting for age, sex, perceived health status, Blacks (OR: 1.27, 95%CI: 1.14-1.41) and unmarried persons (OR: 1.21, 95% CI: 1.11-1.31) were more likely to report having at ≥ 1 ED visits than their White and married counterparts. Compared to Whites, Asians (OR: 0.65, 95%CI: 0.51-0.81) had lower odds of having ≥ 1 ED visit. Those who were employed were less likely (OR: 0.75, 95%CI: 0.67-0.83) to have ED visits compared to those who were unemployed. Those who were not poor/near poor (OR: 0.86, 95%CI: 0.78-0.96) had lower odds of ED visits than the poor.

Conclusions: Being Black, poor, unemployed and unmarried were associated with a higher odds of ED visits in the prior 12 months among those with CHD/stroke. Targeted and culturally-appropriate strategies that address SDoH among this vulnerable, high risk population may help prevent costly ED visits.

Title:

Influence of Social Determinants of Health on Emergency Department Visits Among Individuals With Cardiovascular Disease

Keywords:

Coronary Heart Disease, Emergency Department and Social Determinants of Health

References:

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Abstract Summary:

Health disparities continue to be a concern among nurses. Individuals with coronary heart disease demonstrate a high frequency of emergency department (ED) visits to manage acute and chronic symptoms. ED revisits are often attributed to poor access to primary care, premature ED discharge, advanced age, and lack of social support.

Content Outline:

Introduction: The global burden of cardiovascular disease is growing problem accounting for 17.3 million deaths in 2013 and projected to increase to 23.6 million by 2030. Like many other countries, in the United States, cardiovascular disease is endemic, remaining the greatest cause of hospitalization and mortality, attributing to more than 45% of deaths among American adults. The American Heart Association (2017) reports more than 92.1 million American adults living with some form of cardiovascular diseases. We hypothesized that SDoH would be associated with having ≥ 1 ED visit(s) in the prior 12 months among patients with CHD and stroke and applied the following methods:

1. A cross-sectional analysis of the 2010-2016 National Health Interview Survey was conducted among those who self-reported CHD/stroke diagnosis.
2. Logistic regression analyses were performed with the outcome reporting ≥ 1 ED visit for any reason in the prior 12 months.

3. Social Determinants of Health (SDoH) examined were race, employment status, poverty, and marital status.

Body of presentation:

1. Secondary Analysis of data set (2010-2016)
Apply Logistic Regression to compare the following:
 1. Patients who have CHD and have been to the ED more than once in 12 month period
 1. Patients who have CHD but have not been to the ED more than once in a 12-month period
2. Descriptive Analysis
Variables:
 1. Age
 2. Sex
 3. Race/Ethnicity
 4. Income
 5. Marital status
 6. Education level
 7. Health insurance coverage (yes/no)
 8. Housing
 9. Greater than or equal to, one ED visits over 12 month periods

Conclusion:

1. Individuals that are Black, poor and unemployed and not married are more likely to have one or more emergency department visits in one year.
2. Social determinants of health are associated with the number of ED visits among individuals with Coronary Heart Disease and Stroke.

First Primary Presenting Author

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Author Summary: Dr. Baptiste has had a 18-year nursing career devoted to caring for adults, specializing in cardiovascular prevention and health care. She has recently joined the Johns Hopkins Hospital Emergency Medicine Leadership Team, assisting nurse leaders working on various quality improvement projects. Dr. Baptiste has published in areas of heart failure and cultural humility. She has presented nationally and internationally in areas of nursing education with a promoting nurse competencies in acute-care clinical settings.

Second Author

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Author Summary: Ruth-Alma Turkson-Ocran is a 3rd year PhD Student at the Johns Hopkins University School of Nursing. She is a Board-Certified Family Nurse Practitioner with a Masters in Public Health. Her research interests include cardiovascular and metabolic diseases and risk factors, immigrant health, health disparities, and social justice. She is a National Institute of Health/National Institute of Nursing Research (NIH/NINR) pre-doctoral fellow in Interdisciplinary Cardiovascular Health Research and a member of the American Heart Association (AHA).

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Author Summary: As a community health researcher, Dr. Hae-Ra Han works to reduce health disparities by implementing and evaluating community outreach programs in cancer control and cardiovascular health promotion for ethnic minorities. One of the first researchers funded through the Johns Hopkins University School of Nursing, she has served as a principal investigator of federally-funded research focused on cancer control among Korean women and as a co-investigator other investigations concerning diabetes, and health literacy among minorities.