Health Disparities within Racial Minorities effect on Cardiovascular Health

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Abstract

Background: Heart diseases in racial minorities differ as social determinants affect every community differently. Specifically, in minorities such as American Indians, Alaskan Natives, and Hispanics, cardiovascular disease (CVD) is more prevalent due to underrepresentation, underreporting, and health factors, where the risk of CVDs is higher. This literature review will compile information from other studies to address the difference between low income racial minorities.

Methods: Using search engines, Google Scholar and PubMed, this review was based on studies that reported on racial minorities living in low income communities, with a lack of access to affordable, quality healthcare, lack of a stable socioeconomic status, and other social determinants.

Results: Racial minorities in low-income communities are the leading factor in heart related deaths in the US. About 58% of the lower class are composed of racial minorities, where 67% of hispanic women were affected by ischemic heart disease. CVD and other heart diseases such as coronary heart diseases are 12% more prevalent in American Indians and Alaskan Native, compared to the white population. Native Americans and Alaskan Natives are also found to be underreported in CVDs by 21% because of lack of representation within the healthcare community.

Discussion: Much of the higher rates of CVD in racial minorities were due to the increase of unhealthy behavior, because of the lack of health education within these communities. In American Indians and Alaskan Native, the numbers may not even be accurate due to the underrepresentation and underreporting, which is why not many programs are in place to fight against these higher rates. Hispanics in low income communities often dismiss health warnings, because of cultural “norms” and continue on with unhealthy lifestyles with excess drinking, smoking, and dietary habits.

Introduction

Heart disease is the leading cause of death in the United States, and largely differs by race and ethnicity [1]. Non-hispanic black persons were more than twice as likely to die of heart diseases in 1999 and 2017 [1], because of dietary factors, exposure to chemicals, and higher risk of hypertension, within these communities compared to other racial groups. Among American Indians, and Alaska Natives, higher rates of heart failure and arrhythmia and other forms of CVD

are more prevalent, but lack proper defense due to limited data [2] and underrepresentation in the health care system.

These racial minorities are often underrepresented within the system, and are exposed to a higher risk of CVD, because of lack of education, lack of quality health care/insurance, and other social determinants of health [2]. Racial minorities in low income households aren't often included in national surveys, and because of different lifestyle habits, have a higher risk of cardiovascular diseases [2]. About 58% of low income communities are those of racial minorities, often living lifestyles that contribute to CVD risks [5]. Hispanic and non-Hispanic black adults, age 20 and over were the most likely to have hypertension, obesity, diabetes, and high total cholesterol from 2015-2016 [1], which may not be an accurate measure in numbers due to the lack of representation within these communities.

There are many factors when determining what creates higher risks in CVD for these communities. This review will address what creates racial differences between American Indians, Alaskan Natives, African Americans, Hispanics and their white counterparts and how the healthcare system fails to cater, and causes an increase of risk for CVD in these groups. This paper will also address the programs put in place to try to fix the numbers of CVD in these minorities, and incentives placed in low income areas to lower the risk of CVD. This paper will aim to promote health equity, and analyze the lifestyles of these minorities, to find what leads to this higher mortality rate when considering cardiovascular health.

Methods

In this literature review, using studies from 1991-2023, Google Scholar, and PubMed were used to identify studies that reported on the health disparities within specific racial and ethnic groups. Using key search terms, “access to healthcare relationship with cardiovascular health,” articles were chosen if they included the racial/ethnic groups in low income with high risk to particular heart conditions or CVD. After thoroughly scanning abstracts, and full articles, the list of articles were narrowed down to original studies on how racial disparities in low income communities affect access to health care, and its relationship with cardiovascular health.

Results

This literature review found that largely low income racial minorities were the leading group in heart related deaths in the United States. Among women in 1995, the leading group in heart related deaths were Hispanic women of whom 67% had ischemic heart disease [3]. CVD and coronary heart disease (CHD) rates are 12% higher likely in American Indians and Alaskan Natives compared to the white population in the United States, and are even believed to be underreported by 21% [2]. It was found that diabetes mellitus (DM), and higher rates of coronary heart disease among these two groups, with additional factors such as low-density lipoprotein cholesterol levels (one of the lipid groups), hypertension, renal diseases, age and sex were the leading CVDs in American Indians and Alaskan Natives [2].

Among Hispanics, in a study from 2015, participants were relatively healthy with only a third reporting having ever been told they had any type of heart disease, heart failure, high cholesterol, or diabetes/hyperglycemia [4]. Over a quarter of the sample had been told that they had high blood pressure [4]. Participants in the sample were mostly under the age of 50 years, women, had a high school education or less, were foreign-born, and spoke both English and Spanish at home. Most participants were currently insured, had a usual source of care, and had more than one physician visit in the last 12 months [4]. Hispanics, the largest ethnic minority group in the United States, have higher rates of CVD behavioral risk factors such as smoking and lack of physical activity than non-Hispanic whites [4]. In another study from 2022, 70.4% of the participants had treated hypertension, who had also graduated high school and had a college degree [5]. As the level of education completed went lower, the cases of untreated hypertension increased within the group [5].

Discussion

The leading factor to the increase of CVDs in American Indians and Alaskan Natives is mainly exposure to toxic material due to smoking and those living in low income communities. Some programs and resources have reduced CVD risk in higher risk communities, but systemic issues such as the underreporting of American Indian, and Alaska Native population largely underestimates the “extent of CVD” within these groups. Forms of CVD, such as heart failure and arrhythmia are also understudied within American Indian and Alaskan Indian populations, and social determinants vastly contribute to both the lack of access to quality care, and the underrepresentation of these groups within the healthcare system [2]. The data suggests that due to this underrepresentation, these population groups are more susceptible to untreated CVDs, and dismiss early stages of hypertension and other symptoms that are indicators of CVDs.

Increasing rates of ischemic heart disease among Hispanic women is largely due to the unhealthy and cultural “norms” that are common within the community. Compared to results in 1995, in 2022 CVDs affect 42.7% of Hispanic women, and 52.7% of Hispanic men [6]. Due to social and economic challenges, CVD remains the leading cause of death within Hispanics, because of the significance of morbidity and mortality in this group [6]. Compared to their white counterparts, with only 36% of the population affected by CVDs, Hispanics are more susceptible to heart diseases due to core health behaviors like smoking, physical inactivity, diet, and weight [6]. This also includes health factors, such as cholesterol, blood pressure, and glucose control which levels vary among races [6]. The results might suggest that it is due to the high lipid diets that are often present in these communities. However, a more plausible explanation is a lack of physical activity, and excess smoking and other unhealthy behaviors. The results build on existing evidence of the difference between racial groups in general. Those in low income Hispanic and black communities often have less healthier lifestyles, which increases the risk for CVDs [5]. This is why initiative should be taken to educate these communities on the importance of cardiovascular health and the importance of studying the implications within these racial minorities.

Future research is needed to establish proper procedures to help these low income communities. Often because of the underrepresentation and underreporting of these groups, few options are there to maintain and support individuals of these communities. It is beyond the scope of this study to specifically dive into areas of the US, but this review addresses the clear differences between racial minorities.

References:

1. Health, United States Spotlight, Racial and ethnic Disparities in Heart Diseases (2019) *CDC,* (2) https://www.cdc.gov/nchs/hus/spotlight/HeartDiseaseSpotlight_2019_0404.pdf

2. Breathett, K., Sims, M., Gross, M., Jackson, E. A., Jones, E. J., Navas-Acién, A., Taylor, H. A., Thomas, K. L., & Howard, B. V. Cardiovascular health in American Indians and Alaska natives, American Heart Association. (2020) *Circulation*, *141* (25).

3. Casper, M. L. (2000). Women and heart disease; an atlas of racial and ethnic disparities in mortality. (239) *CDC* https://stacks.cdc.gov/view/cdc/12169

4. Alcalá, H. E., Albert, S. L., Roby, D. H., Beckerman, J. P., Champagne, P., Brookmeyer, R., Prelip, M., Glik, D. C., Inkelas, M., Garcia, R. E., & Ortega, A. N. (2015). Access to care and cardiovascular disease prevention. *Medicine*, *94* (34), e1441.

5. Maldonado, A., Hoffman, R. M., Baquero, B., Sewell, D. K., Laroche, H. H., Afifi, R., & Gilbert, P. A. (2022). Identifying the social determinants of treated hypertension in new and established Latino destination states. *Journal of Immigrant and Minority Health*, *25*(1), 50–61.

6. Virani SS, Alonso A, Aparicio HJ, et al. Heart disease and stroke statistics-2021 update: a report from the American Heart Association. *Circulation.* 2021;143:e254–e743.

7. Professional, C. C. M. (n.d.). *How race and ethnicity impact heart disease*. Cleveland Clinic. https://my.clevelandclinic.org/health/articles/23051-ethnicity-and-heart-disease