

**The Impact of Economic Status and Social Support on Cardiovascular Health**  
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**ABSTRACT:**

Economic status, an important social determinant of health, impacts quality of life and cardiovascular health. But how does economic connectedness, or the economic status of our friends impact upward mobility and the ability to improve our socioeconomic status and health? This report explores the deep connection between economic status and social support on cardiovascular health, and how social networks may play a role.

**INTRODUCTION:**

Economic status and social relationships play a significant role in cardiovascular health as people with lower income often face barriers to living healthy lifestyles due to factors like limited access to nutritious food, safe places to exercise, and good quality healthcare [1]. If people have a lower economic status it could lead to not getting the professional care that is required for their health [1]. Likewise, social interactions can influence cardiovascular health [1]. For example, hostility which is defined as aggressive behavior or conflict, may lead to increased stress and poor health outcomes [2]. On the other hand, social support including emotional, financial, and practical support, can lead to decreased levels of stress and better health outcomes [2].

Data from the Center for Disease Control (CDC) show 20% of high income individuals have healthier levels of biomarkers for cardiovascular disease [3]. Higher income individuals have greater access to primary care and more frequent screening for CVD meanwhile 80% of low-income individuals have hypertension, high cortisol levels, and these conclude risk factors that include higher chances for cardiovascular abnormalities [3].

If we could improve access to health care for low income individuals it could lead to better life quality, a healthier life, and a more happier and active community. The efforts to better health have tried to be provided to the public such as offering free exercise programs, and creating a garden. But this doesn't address the full problem, these "solutions" are not sustainable. People with a lack of money are more likely to not get the education they need to know about what more they can do to prevent cardiovascular abnormalities based on economic status.

This paper aims to examine the impact of social networks of low-income individuals on cardiovascular health.

**METHODS:**

I conducted a scoping literature review by searching PubMed and Google Scholar using the key words cardiovascular disease and economic status. Studies performed in the United States were included while systematic reviews and literature reviews were excluded.

## **RESULTS:**

Knox et al., reports on the relationship between hostility, social support, and carotid artery atherosclerosis [2]. Social support decreased the odds of atherosclerosis in women at a high risk of coronary heart disease [2]. High risk women were more impacted by social support than high risk men, or medium and low risk men and women [2]. In high-risk men and women, hostility negatively impacted atherosclerosis, however, hostility plus low social support had even higher odds of developing atherosclerosis [2]. High risk women were impacted by high hostility, however low to medium risk men and women had no significant association [2].

Orth-Gomér et al., reports that marital stress caused a 2.9-fold increase in recurrent coronary events as compared to work stress, which did not significantly increase recurrent coronary events [4]. After statistically taking into account covariates including the severity of angina pectoris symptoms, sedentary lifestyle, personal history of high blood pressure, family history of coronary heart disease, body mass index, and total cholesterol level the result was still significant [4]. It is important to note that marital status itself was not associated with an increased risk of recurrent events [4].

Evidence from Hubinette et al., shows how lower social classes have less social support, reduced health benefits and limited healthcare access [5]. This correlation between socioeconomic status on cardiovascular disease shows that lower social classes have a higher risk of heart disease [5]. According to Chetty et al., people within the same social class tend to be friends more than people who aren't in the same social class [6]. If there are a lot of high socioeconomic (SES) people in one place like a neighborhood, you'll likely find a lot of high SES people in other places like school's [6]. Friending bias, or the tendency to make friends with certain types of people, is usually the same across different places [6]. So, low bias group's (like religious groups) in one area will probably be low bias in other areas too [6]. Where you live can affect how many high SES individuals you meet, but the groups you're part of really determine how much you interact with these high SES peers [6].

## **DISCUSSION:**

The study from Knox et al. underscores the protective role of social support against atherosclerosis in high-risk women, highlighting the significance of strong social connections in promoting cardiovascular health [2]. Moreover, the differential impact of social support across gender and risk groups suggests the need for gender-specific interventions targeting social support to mitigate cardiovascular risk factors as women were more likely to rely on social support. Additionally, Knox et al. reveal the adverse effects of hostility on atherosclerosis, particularly in high-risk individuals, emphasizing the detrimental consequences of hostile attitudes and behaviors on cardiovascular health. The exacerbation of atherosclerosis risk in individuals experiencing high hostility and low social support underscores the importance of

addressing both psychosocial factors in cardiovascular disease prevention efforts.

Orth-Gomér et al.'s study highlights the association between marital stress and the risk of recurrent coronary events [4]. This underscores the critical impact of marital relationships on cardiovascular health outcomes and emphasizes the need to consider the quality of marital relationships when assessing cardiovascular risk. While both work stress and marital stress put strain on the heart, only marital stress was associated with increased risk of having recurrent coronary events. This suggests that the social support one would receive from a partner, which is typically protective of heart health, is not present. The results emphasize the imperative of targeted interventions aimed at mitigating marital stress to reduce the burden of recurrent coronary events in at-risk populations.

The Hubinette et al. study demonstrates that low-income individuals have increased risk of cardiovascular disease, compared to high-income individuals, while Chetty et al. demonstrates that people tend to befriend those in similar SES positions [5,6]. High income-individuals may have more connections than people with lower incomes, which leads me to believe that people with higher incomes may have more efficient healthcare than people lower income individuals.

Ultimately, assessing the current literature on social support, this paper has found that a lack of a strong support system usually negatively impacts cardiovascular health. To increase social support, doctors can provide information to patients on therapy and group support. Future researchers should do a needs assessment for social support among low-income communities and then study effective interventions to increase social support.

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