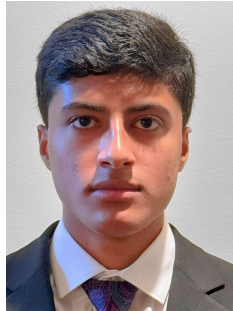# Determining the best methods of Health Education for Coronary Heart Disease

Gowtham Kantamneni
Novi, Michigan

ABSTRACT:

Background

Coronary heart disease (CHD) has increased over the last twenty years. Previous studies show that health education may have a role in exacerbating this epidemic. This study aims to find the best ways to help alleviate the inequality regarding CHD between educated and less educated individuals.

Methods

Google Scholar was searched using the key search terms coronary disease and education to identify three articles to be reviewed. They focused on education and CHD, studies written in English, and published within the last 15 years and excluded studies with a population of children under the age of 18 or study design of a literature review

Results

Nearly 42% of patients with CHD reported gaps in their cardiology care, primarily at the transition age of 19.9 years, while only 8% of patients with severe CHD experienced such gaps. Individuals with less exposure to health education had higher total cholesterol, systolic blood pressure, and smoking intensity, leading to a 6.8% increased cumulative risk of CHD in men and 6.2% in women by age 75, with 9334 CHD or stroke events occurring during an 11.5-year follow-up.

Discussion

Health education decisively plays a key role in the onset of CHD. Teaching self-care to patients, particularly in young adults is a potential method to incorporate to help lessen the inequalities elicited by education.

INTRODUCTION:

Coronary heart disease (CHD) has become the single most common cause of death globally [1]. The average lifespan of an individual with CHD is 62 years of age [2]. Although this study confirmed that leading a healthy life is mostly achievable until the late stages of life due to advances in healthcare, we cannot overlook the overall impact of health education on lifespan which is still a primary concern [2]. In just the ten years from 2000 to 2010, there has been a 55% increase in adults with CHD, further emphasizing the urgency of the issue [3].

A lifestyle consisting of frequent exercise, a healthy diet, and free of smoking is pivotal for a heart that is devoid of CHD [4]. Unfortunately, adults who have less health education are less likely to follow the habits listed above, and as such, are more likely to expose themselves to a higher risk of developing CHD [5]. Studying the causes of the differences between uneducated individuals can help clarify what makes them more exposed to this condition and help decrease the prevalence of CHD as a whole by lessening its impact on one of its largest targets. The purpose of this paper is to determine methods for alleviating the inequality elicited by differences in health education between individuals by measuring their quantitative effectiveness on patients.

METHODS:

I used Google Scholar to identify research papers using the key terms coronary disease and education. I chose an inclusion criteria of studies written in English and published in the past 15 years. Studies with participants under the age of 18 were excluded as were other literature reviews.

RESULTS:

Importance of Self-Care
Patients with heart failure have shown a great increase in their self-care behavior from being educated and supported by a nurse in the hospital and home setting [8]. Self-care behavior was increased in patients from both the intervention and control groups within 1 month of discharge, but the increase in the intervention group was significantly more after 1 month [8]. Self-care behavior in both groups decreased over the next 8 months, but the increase from baseline remained statistically significant in the intervention group only, not in the control group [8]. The intervention had no significant effects on resource use [8].

At Risk Uneducated Age Groups
Of patients with CHD, 42% reported gaps in their cardiology care [9]. This number was also much lower at just 8% for patients with severe CHD [9]. The most telling result was that the typical age for gaps in care occurred during the transition from adolescence to adulthood with a mean age of 19.9 [9].

Most pivotal risk factors by education level
At baseline, less educated individuals had higher mean levels of total cholesterol and systolic blood pressure, were more likely to be current smokers, under antihypertensive treatment, and

obese (p-values < 0.05) [10]. Additionally, less educated women had lower HDL cholesterol and a higher prevalence of diabetes, with smoking intensity increasing as education decreased, particularly among women [10]. During a median follow-up of 11.5 years, 9334 incident coronary heart disease (CHD) or stroke events and 7020 non-CVD deaths occurred [10]. Low education was significantly associated with an increased cumulative risk of CHD (p-value < 0.0001 for both genders) and stroke (p-values 0.003 in men, 0.001 in women), with an absolute difference in CVD risk by age 75 of 6.8% in men and 6.2% in women [10]. Additive interaction analysis revealed that smoking increased the cumulative risk of CVD by 3.1% in less-educated men and 1.5% in less-educated women, while obesity was associated with a lower cumulative risk in less-educated men [10].

The cumulative risk of CHD or stroke, above all else, is greater the lower your education level, holding all extraneous variables equivalent [10].

DISCUSSION:

Relation between CHD and Education
A study examining health education's relationship with CHD confirmed that education impacts CHD levels even amongst individuals with similar habits and lifestyles [10]. As such, there is a need to quell disparities brought about by education.

Methods to consider to aid in the combat of CHD
With regards to specific methods of helping uneducated individuals with CHD, focusing on teaching self care to patients has been shown to decrease hospital visits as well as prolonged increase in self-care habits [8]. In essence, taking the time to teach patients how to properly care for themselves increases their likelihood of following these habits and leading a healthier life after discharge. The teaching resonated with patients, improving their self-care habits for many months more than the control groups. As teaching self-care led to a smaller readmission rate to hospitals, teaching self-care can save time and money for hospitals, while allowing patients to maintain a healthier life.

In a study which looked at the prevalence in "gaps" in cardiology care, which are essentially points at which patients are not administering proper care for their respective conditions, gaps were substantially more prevalent in young adults with a mean age of 20 [9]. This means that young adults with CHD are the least likely to properly care for themselves and should be targeted by educational interventions. Although these ages may have a smaller prevalence of CHD than older individuals, lessons learned at this age have been shown to hold true throughout much of adulthood, meaning addressing these ages could not only benefit the most disadvantaged age group, but also improve their CHD care in the future.

Based on the findings, we can conclude that the best way of alleviating health education shortcomings is to teach self-care to patients who are transitioning from adolescence to adulthood, around the age of 20.

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