

# Coronary Heart Disease Treatment & Filipino Americans: A Call to Action for Public Health Strategies

Tolentino D\* and Gantioque R

California State University Los Angeles, United States

## Abstract

Filipinos have substantial ethnic and cultural differences amongst other Asian American subgroups, but tend to carry higher risk for coronary heart disease (CHD) risk factors such as hypertension, diabetes type II, and dyslipidemia. However, there is little research on predicting factors for this increase, and even fewer on treatments individualized for the Filipino community. This paper is an attempt to provide nurses and other health care providers with a compilation of the most recent available literature on causes of higher rates of these risk factors among Asian Americans along with current treatment strategies such as utilizing the Neuman Systems Model and community health workers' intervention to specifically treat the Filipino community.

**Keywords:** Filipino hypertension; Coronary heart disease; Dyslipidemia

## Background

Asian Americans are among the fastest growing population in the United States [1]. The U.S. Census Bureau predicted the Asian American population to reach 41 million by the year 2050 [2] and classified them into six major subgroups: Filipino, Japanese, Vietnamese, Chinese, Korean, and Asian Indian. Filipinos are currently considered the second largest Asian American subgroup in the U.S. with 3.4 million people [3].

Coronary heart disease (CHD) rates have been thoroughly researched between Asian Americans and other groups such as non-Hispanic white (NHW) men and women, with little research focused on individualized subgroups like Filipinos. Much of the research on Filipinos are either outdated or include Filipinos in a larger group, causing results to be skewed due to underrepresentation of these known ethnic differences. There are many substantial ethnic differences in causes and predictors of CHD risk factors, which justify a more targeted and individualized approach when it comes to treatment and management [4].

Filipino Americans, specifically, have high prevalence and mortality rates in CHD risk factors when compared to other Asian Americans. They have a higher prevalence of hypertension [5,6], diabetes mellitus type II [7,8], and dyslipidemia [9-13]. For example, one study found Filipino men to have one of the highest proportionate mortality ratio for ischemic heart disease among other Asian American subgroups [4]. Another study surveyed 1028 Filipinos, and 53% of them had hypertension [5]. With several studies providing support of higher rates of CHD associated risk factors, there are few researches on its predicting factors, and even fewer on targeted treatment towards this population.

The purpose of this review is to provide nurses and health care providers with a collection of the most recent literature on reasons for higher rates of CHD risk factors such as dyslipidemia, obesity, lack of exercise, diabetes, and hypertension in both Filipino Americans and Filipino immigrants, and compile a summary of the limited available treatment strategies targeted towards this specific population.

## Causes for higher prevalence in risk factors among Asian Americans

There are several studies which discuss possible causes for higher prevalence in risk factors among Asian Americans. Some of these causes include higher BMI [10-12] and social history such as tendencies to smoke and drink alcohol. One major probable factor includes dietary

intake. A study done by Dela Cruz and Galang [13], examined Filipino beliefs on hypertension in California. Participants in this study noticed worsening changes in diet after moving to the United States, mostly due to increased intake of junk foods and meats. Another study done by Abesamis-Mendoza et al. [14] found that Filipino residents living in New York were purchasing more non-fresh vegetables such as canned and processed foods as well as living more of a sedentary lifestyle.

Other possible contributing factors include little interest in exercise [15], which has known consequences of lowering HDL level [16]. One study by Ursua et al. [5], showed that neighborhood safety appeared to be a major barrier to exercise while another study noted time constraints due to family obligations and work schedule being major contributors [17]. Belza et al. [18] showed that Filipinos stated climate differences and minimal access to exercise facilities were the reasons for a decrease in physical activity, especially during winter.

Not only are many of these contributing factors related to prevention, but Filipinos also tend to have poor disease management when being diagnosed with hypertension and/or diabetes [19,20]. Filipinos tend to have low medication adherence, limited knowledge, and lack of health insurance, which all lead to poor control of chronic diseases. A lack of cultural and linguistically appropriate assessment and education tools may also contribute to poor disease management.

## Current Treatment Strategies

### Neuman systems model

There is very little research available on targeted treatment towards Filipino Americans. One study done by Angosta et al. [17], explores treatment methods by means of utilizing the Neuman Systems Model (NSM). The method behind this model begins by accurate assessment

\*Corresponding author: Denacel Tolentino, California State University Los Angeles, 5151 State University Drive, Los Angeles, CA 90032, United States, Tel: +1 951 515 9886; E-mail: [denacel@gmail.com](mailto:denacel@gmail.com)

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and identification of internal and environmental stressors to focus on teaching and treatment strategies on these stressors.

Some examples of interpersonal stressors include unexpected family events such as a heart attack on a family member, expected roles and participation among the family and society, and relying on family as the primary support system [14,21]. Filipinos also tend to disagree with the idea of placing relatives in convalescent homes, which add even more stress to the younger generation due to the expectation to provide direct home care to their older family members [22]. Examples of extra personal stressors include presence of workplace discrimination, and lack of health insurance or healthcare provider [14].

The model also focuses on primary, secondary, and tertiary prevention levels. For example, for primary prevention, the study suggests implementing exercise programs that are fun, flexible, and affordable since many Filipinos do not like participating in exercise classes due to time or financial constraints [9]. Secondary prevention focuses on treatment and compliance. Since prior studies have identified Filipinos to have low drug compliance [20], the researchers suggest spending extra time focusing on importance of diet and exercise. Nurses can educate on the effects of drugs and potential long term effects if non-compliance continues. Tertiary prevention includes focus on family support, encouragement, and assistance in coordinating follow-up visits.

### Utilization of community health workers

Currently, the most recent publication regarding definitive treatment for Filipino Americans is utilization of community health workers (CHW) [23]. This study assessed the effectiveness of CHWs to improve management of hypertension among Filipino Americans. CHWs are healthcare professionals who work closely in the communities they serve to provide culturally appropriate care to their target population. These workers tend to share the same racial and ethnic background, socioeconomic status; fluent in the language of the target population, and have similar life experiences [24,25]. An example provided by the study includes a CHW who is a Filipino immigrant, fluent in English, Tagalog, and Visayan (a Filipino dialect) languages, and had at least a bachelor's degree level of education. These CHWs provided educational session on heart disease and heart attack, how to effectively control cholesterol, blood pressure, and blood sugar, increasing physical activity, weight management, proper nutrition, and smoking cessation [26]. Results showed those in treatment group had a significant improvement in blood pressure management and were more likely to keep follow-up appointments [23].

### Implication for nursing & public health

There are many benefits to utilizing treatment methods that are individualized for the Filipino community. Nurses can apply these treatments to improve accuracy in identifying culturally related stressors as mentioned in the Angosta et al. [17] study and utilize the Newman Systems Model for primary, secondary, and tertiary intervention. Educating nurses and other health care providers on the importance of utilizing CHWs may ultimately improve disease management and overall reduce incidence of cardiovascular risk factors such as hypertension. This study is significant to nursing practice and public health since it is among the first to apply the CHW intervention as a method of treatment for Filipinos with results showing improvement in disease management. However, this study solely focused on hypertension. More research is needed on how to effectively manage other cardiovascular risk factors such as diabetes mellitus type II and dyslipidemia in the Filipino community [27-30].

### Conclusion

Filipino Americans have one of the highest rates of cardiovascular mortality among the Asian American population, yet there is very little research on treatment strategies geared towards this specific population. There are multiple factors that may have caused this increase, including cultural lifestyle, genetic predisposition, food, and family dynamic. Filipinos tend to be aware of their cardiovascular illnesses, but have low compliance and adherence to treatment recommendations.

Since there are very few researches that focus on treatment, there is a call to action to develop more public health strategies to treat Filipino Americans in order to reduce cardiovascular risk factors and ultimately reduce mortality within this population.

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