The Impact of Coronary Heart Disease in Women among Age 18 - 25 Years Old, in Mogadishu, Somalia

Dr. Mohamed Osman Ahmed

Email: *mohamedbakistan[at]gmail.com*

Abstract: *Cardiovascular disease (CVD) is a leading cause of mortality worldwide, with unhealthy lifestyle behaviors being a major contributing factor. Emerging adulthood, a period of development between adolescence and full adulthood, is characterized by behaviors that may threaten health and increase CVD risk. College attendance is associated with unhealthy lifestyle behaviors that increase CVD risk, with emerging adults from rural areas potentially being at greater risk due to environmental barriers and socioeconomic disadvantage. This review summarizes the literature on CVD risk among emerging adults attending college in rural areas, highlighting the importance of addressing CVD in high - risk environments. Understanding the unique challenges and risk factors faced by this population can inform the development of targeted interventions to promote healthy lifestyle behaviors and decrease CVD risk.*

Key words: Cardiovascular disease (CVD), Mortality, Decreased CVD risk

1. Introduction

Globally, Over 23 million individuals worldwide will die from cardiovascular diseases (CVD) in 2030.1 In the United States, approximately 84 million American adults have CVD2 with heart and cerebrovascular diseases being the first and third leading causes of death, respectively.3 In 2010, the overall death rate from CVD was 235.5 per 100, 000 with one American dying of CVD every 40 seconds.2 Cardiovascular diseases are also economically burdensome. The direct and indirect costs of CVD were approximately 315.4 billion in 2010, 2 an increase of more than 10% compared to 2007. A healthy lifestyle is a fundamental component of CVD prevention and ideal cardiovascular health. In 2010, the American Heart Association (AHA) defined national goals for ideal cardiovascular health that included meeting lifestyle - related recommendations for physical activity and dietary behaviors, not smoking, and a body mass index (BMI) less than 25kg/m2.5 Data from several large epidemiological studies have shown that risk for developing CVD6 and risk of CVD mortality7, 8 is significantly reduced in those with lower risk factor profiles.

Given the association of healthy lifestyles with lower risk factor burden in CVD prevention, it is important to study populations whose lifestyles place them at risk for CVD. Emerging adulthood is a distinct period of development among those 18 - 25 years of age9 when behaviors that threaten health may develop and extend into later adulthood.10 Emerging adults are distinct because they are beyond the period of dependency in adolescence but have not taken on full responsibilities of adulthood.10 This population may be at greater risk for developing unhealthy behaviors due to less parental monitoring, growing independence, and financial instability. A growing population of at - risk emerging adults is those attending college. In 2011, 42% of 18 - 24 year old emerging adults enrolled in college compared to 36% in 2006.11 Many college students develop unhealthy lifestyle behaviors that increase CVD risk including diets low in fruits and vegetables, frequent consumption of fast foods, and physical inactivity.

There is growing awareness regarding the importance of addressing CVD in high - risk environments such as rural, Eastern Appalachian Kentucky.18 Emerging adults in college from rural areas may be at greater risk for CVD compared to those living in urban areas due to poorer socioeconomic conditions and environmental barriers such as limited access to parks and recreation facilities for physical activity. Lower income19, 20 and lower education21, 22 are associated with unhealthy behaviors, and living in a socioeconomically disadvantaged environment carries a risk of heart disease independent of individual characteristics and behaviors.23 - 25 Unhealthy behaviors that develop during emerging adulthood among those living in rural areas may partially contribute to higher rates of CVD observed in older adults in these regions. Attending college is associated with behaviors that increase CVD risk regardless of location; however, college students living in rural areas may be at greater risk.

2. Literature Review

Psychosocial factors have been shown to play an important role in the etiology of coronary heart disease. A strong association between coronary heart disease and socioeconomic status (lower - level education, poor financial situation) has also been well established. Socioeconomic differences may thus also have an effect on psychosocial risk factors associated with coronary heart disease, and socioeconomic disadvantage may negatively affect the later prognosis and quality of life of cardiac patients. A more systematic and interdisciplinary attitude to coronary heart disease (CHD) has gained ground recently. Attention has also focused on the role of psychosocial factors and increasing socioeconomic differences in the etiology and prognosis of CHD (1, 2, 3, 4). Evidence suggests that in addition to the traditional biomedical risk factors (cholesterol, hypertension, and blood pressure) there are

other important determinants of coronary heart disease (5, 6, 7, and 8). Various psychosocial factors have been shown to be related to different aspects of the cardiovascular disease process. Depression is associated with increased cardiovascular morbidity and mortality, both a etiologically and in terms of prognosis, being a known risk factor for the development of cardiovascular disease, as well as an independent predictor of poor prognosis following a cardiac event (9, 10, 11, 12). Hostility and anger are assumed to increase the risk of CHD through stress - induced cardiovascular and neuroendocrine hyper reactivity and health risk behaviors (7, 13, and 14). Lack of social support has been related to health - risk behavior, psychological distress, cardiac symptoms, an increased risk of recurrent cardiac events and mortality (15, 16). Lack of optimism (17, 18) and perceived stress (19, 20) are also connected with increased cardiovascular mortality and morbidity. A greater negative self - perception of health has been found to be an important predictor of general and cardiovascular mortality and morbidity even after adjustment for the influence of other risk factors (21), vital exhaustion is a substantial predictor of myocardial infarction within an 18 - month period before the cardiac event (20, 22), and Type D personality has been associated with higher numbers of reinfarction and higher mortality rates among cardiac patients (23, 24).

It is predicted that by the year 2020 coronary heart disease (CHD) will overtake infectious disease as the world's leading cause of death and disability, while depression will take second place (1). Research directions in the field of coronary heart disease have changed considerably over the last few decades. Besides the traditional biomedical factors, more attention is being focused on the role of psychosocial factors and socioeconomic position in the etiology and prognosis of CHD. Both psychosocial and socioeconomic factors have been shown to have significant influence on the quality of life, not only among the general population but also among people who already suffer from cardiovascular disease (2, 3, 4). In the last decade one of the most important observations in the field of public health is that relative socioeconomic disadvantage in society constitutes an independent health risk. When morbidity and mortality data are connected with the traditional risk factors, then relative social disadvantage has a far greater effect than the other factors (5). As Marmot & Elliot (6) conclude, socioeconomic differences in CHD have increased throughout Europe in the last few decades. The trends in mortality from CHD have been uneven in the European countries. Heart disease has declined in frequency in the west, but increased in the east, opening up an east - west gap. Also within the particular countries the decline in CHD rates has been steeper in subgroups of the population in more favored socioeconomic positions. In a considerable number of studies it has been shown that socioeconomic disadvantage during the course of life (poor income, low education) is associated with higher presence of CHD lifestyle risk factors (heavier smoking, worse nutrition, higher levels of cholesterol) and with worse prognosis among patients (7, 8, 9, 10). Higher CHD mortality and morbidity risk has been found in patients from low socioeconomic groups (11, 12, 13, and 14).

3. Methodologies

The primary data of this study collected by using questionnaire, Questionnaire is used in view of the realty that the study will concerned with variables that can't be observing such information, so it is the best way of collecting data through questionnaires (Saunders et al, 2009). Researchers selected this method because it allows for the researchers opportunities to meet face to face with the respondents and explained the purpose of the study, and it also helped them to the fill the questionnaires. The questionnaires of this study was developed by the researcher and they based on literature review whose congruent their dimensions of research and research objectives through steps in order to get relevant information on the research questions then researchers structured questionnaires into three sections: part (A) profile of the respondents, part (B) research questions one. Part (C) research questions two; and format of questionnaire designed as five point liker's scale. Finally the researchers will correct any errors in order to enhance validity and reliability of the research.

4. Results and Findings

This part concerns the research result and findings derived from the distributed questionnaires. The main purpose of this study was to determine the impact of coronary heart disease in women among age 18 - 25 years old, in Mogadishu, Somalia. Researchers measured the the impact coronary heart disease in women into three indicators - economic level factor, culture level factor and the influence of cardiovascular disease of risk factors. Since the purpose of this study was to investigate coronary heart disease in women among age 18 - 25 years old and the relationship between them. The questions consisting three statements used for the collection of the data and was distributed among each of them. Empirical investigation was also undertaken, using simple correlation analytical technique specially movement correlation. Emerging adult women emphasized of the difficulty engaging in CVD health behaviors while attending college and choose to ignore long - term CVD risk. Overcoming college - specific and developmental barriers to engaging in healthy behaviors is critical to reducing cardiovascular risk in this population. Among of emerging adults, the prevalence of Coronary heart disease and many risk behaviors are higher among men than women. Despite emerging adults having knowledge of CHD risk, many do not engage in healthy behaviors, even if they are at high risk for Coronary heart disease. Socioeconomic status was found to be the negatively associated with the psychological outcomes and quality of life among cardiac patients. Socioeconomic inequalities should be taken into account when designing suitably - adapted interventions focusing on psychosocial factors among cardiac patients. Besides the traditional biomedical factors, more attention is being focused on the role of psychosocial factors and socioeconomic position in the etiology and prognosis of CHD. Both psychosocial and socioeconomic factors have been shown to have significant influence on the quality of life, not only among the general population but also among people who already suffer from cardiovascular disease

5. Conclusion

The general objectives of this study were to impact of coronary heart disease in women among age 18 - 25 years old, in Mogadishu, Somalia. The study revealed that the heart disease occurred in Coronary heart disease (CHD) is usually caused by a build - up of fatty deposits (atheroma) on the walls of the arteries around the heart (coronary arteries). The build - up of atheroma makes the arteries narrower, restricting the flow of blood to the heart muscle. This process is called atherosclerosis. the risk of developing atherosclerosis is significantly increased if you: smoke, have high blood pressure (hypertension) , have high cholesterol, have high levels of lipoprotein, do not exercise regularly, have diabetes. . In chapter four we found that the impact of socioeconomic on coronary heart disease in women 18 - 25 years in average 80.0%, similarly I get that the relationship between culture and coronary heart disease in women 18 - 25 years in average 60.0% on heart disease, while the psychosocial factors cardiovascular disease in women among 18 - 25 years on average 89.2%, as agreed the majority of the respondents of this study according to the relation between barriers for coronary heart disease and women among 18 - 25 years in Mogadishu - Somalia. The first objective of this study was to To examine the extent to which economic factors of coronary heart disease in women among age 18 - 25 years old in Mogadishu, Somalia, so that the table below shows the strong positive relationship between the coronary heart disease and women among 18 - 25 years in Mogadishu - Somalia. Second objective of this study was to To determine the effects of culture of coronary heart disease in women among age 18 - 25 years old in Mogadishu, Somalia. so that there is the positive relationship between the coronary heart disease and women among 18 - 25 years in Mogadishu - Somalia. Third objective of this study was to To assess the influence of psychosocial factors cardiovascular disease of risk factors in Mogadishu Somalia. so that there is the strong relationship between the coronary heart disease and women.

6. Recommendations

After concluding the main findings, this thesis has recommended as solutions for barrier vaccination in the following areas; Therefore, this study recommends the following points: To strength the federal government specially ministry of Health and ministry of education to care of primary school age children; NGOs are making small business to Low income peoples to reduced poverty; I recommend women should give a suitable health care during first 18 - 25 years old; The patient must be make Take your medicines as ordered by your doctor. Weigh yourself every morning at the same time. Keep a record of your daily weights. Limit salt or sodium in foods and drinks. Call your doctor for any of the signs listed below do not delay calling; Pay attention to how you are feeling; Exercise each day, but rest as needed; Put your feet up to reduce ankle swelling; Keep your doctor appointments; Lose weight if you are overweight; Stop smoking; Avoid alcohol; Get the flu vaccine each year; Talk to your doctor about the pneumonia vaccine; Stay at least moderately physically active, within any limits your cardiologist gives you; Check your cholesterol level regularly, especially if your family has a history of heart disease; Avoid smoking tobacco, using intravenous drugs, or taking street drugs. These behaviors are even riskier for you than for people without congenital heart disease; Get regular medical care from your primary care physician. Even though you have a cardiologist, you still need a primary care doctor who is in charge of all your medical care; Take care of your dental health. Regular dental care minimizes the chance of infections that could affect your heart. Your cardiologist will tell you if you need to take antibiotics, based on the type of heart disease that you have. See the section on Endocarditic for more information.

References

[1] Albus, C., DeBacker, G., Bages, N., Deter, H. C., Herrmann - Lingen, Antonakoudis G, Poulimenos L, Kifnidis K, Zouras C, Antonakoudis H. Blood pressure control and cardiovascular risk reduction. Hippokratia.2007; 11 (3): 114 - 9.

[2] Austin MA, Hokanson JE, Edwards KL. Hypertriglyceridemia as a cardiovascular risk factor. Am J Cardiol.1998; 81 (4A): 7B - 12B.

[3] Ambrose JA, Barua RS. The pathophysiology of cigarette smoking and cardiovascular disease: an update. Am J Cardiol.2004; 43 (10): 1731 - 7.

[4] Braveman P, Gottlieb L. The social determinants of health: it's time to consider the causes of the causes. Public Health Rep.2014; 129 Suppl2: 19 - 31.

[5] Barter P. HDL - C: role as a risk modifier. Atheroscler Suppl.2011; 12 (3): 267 - 70.

[6] Bakhru A, Erlinger TP. Smoking cessation and cardiovascular disease risk factors: results from the Third National Health and Nutrition Examination Survey. PLoS Med.2005; 2 (6): e160.

[7] Berger NA. Obesity and cancer pathogenesis. Ann N Y Acad Sci.2014; 1311: 57 - 76.

[8] Bastien M, Poirier P, Lemieux I, Despres JP. Overview of epidemiology and contribution of obesity to cardiovascular disease. Prog Cardiovasc Dis.2014; 56 (4): 369 - 81.

[9] Bobak, M., Pikhart, H., Rose, R., Hertzman, C., & Marmot, M. (2000). Socioeconomic factors, material inequalities and perceived control in self - rated health: cross sectional data from seven post - communist countries, *Social Sciences and Medicine*, *51* (9), 1343–1350.