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FACTORS OF CORONARY HEART DISEASE IN AMOUNT OF AGES > 35 YEARS IN THE TANJUNG MORAWA REGION

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Abstract

Although coronary heart disease (CHD) is not contagious, its prevalence is increasing globally and in Indonesia. According to estimates, coronary heart disease will account for 36% of all deaths in 2020, making it the leading cause of death. This figure is twice as high as the death rate from cancer. The aim of this study was to identify risk factors for coronary heart disease in residents of Tanjung Morawa District aged over 35 years. To collect data for this research, 30 respondents filled out a previous questionnaire which was created using Google Form and validated. Three out of thirty respondents in Tanjung Morawa Regency, who were over 35 years old, suffered from coronary heart disease. Physical activity, smoking habits, and diet all impact the prevalence of coronary heart disease.
Keywords: Coronary heart disease, Diet, Smoking, Physical Activity

Introduction

Coronary heart disease is a myocardial disease that arises due to inadequate coronary blood flow due to arteriosclerosis, a degenerative process that is influenced by various variables. Globally, coronary heart disease (CHD) is now the main cause of death, especially in the adult and elderly population. According to recent research published in the journal Nature Reviews Cardiology (2022), people over 35 years of age are much more likely to develop coronary heart disease (CHD). The importance of identifying and controlling CHD risk factors in this age range is emphasized by this study. According to research, the main risk factor is congestive heart failure (CHD) in those aged over 35 years old is advanced age, family history of early CHD, bad lifestyle choices such as smoking, unbalanced diet, not exercising, and obesity. In addition, there is an increased risk of CHD in this age range due to medical disorders such as central obesity, diabetes, hypertension and dyslipidemia. Chronic stress is another important component that should not be ignored as it can worsen other risk factors and increase the chances of coronary heart disease.

This study highlights how important it is to identify CHD risk factors in people over 35 years of age and act quickly to control them. The risk of coronary heart disease and increased life expectancy and quality of life can be reduced by recognizing and treating these risk factors.

Diabetes mellitus and coronary heart disease (CHD) are two diseases that are closely related and pose a significant threat to global health services. According to the latest research published in the journal Diabetes Care (2023), diabetes sufferers, especially those over 35 years of age, have a greater chance of developing CHD than people without the disease. These results highlight the importance of investigating variables that increase the risk of coronary heart disease (CHD) in diabetes patients aged over 35 years.

Diabetes and coronary heart disease (CHD) are quite common in Tanjung Morawa, Deli Serdang Regency, North Sumatra, especially in adults and the elderly. However, there is currently a lack of

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research in this area regarding specific risk factors that increase the risk of CHD in diabetes sufferers aged over 35 years.

The aim of this study was to determine and evaluate important risk factors for the development of CHD in Tanjung Morawa residents with diabetes who are over 35 years old. It is hoped that by understanding these variables, better prevention and management techniques can be found to reduce the incidence of coronary heart disease. incidence of cardiovascular problems in this high-risk group.

Method

In Tanjung Morawa, Deli Serdang Regency, this study examined the risk factors for coronary heart disease in diabetes patients aged over 35 years using qualitative methodology. Qualitative methodology was chosen to obtain a comprehensive understanding of the points of view and experiences related to the research problem. A questionnaire created and validated by Google Forms was previously used to collect research data. Thirty samples from Tanjung Morawa village were collected for this research. The purpose of this questionnaire is to collect data regarding lifestyle, medical history, demographics, and other factors that can increase the risk of coronary heart disease in diabetes patients over the age of 35 years.

Results and Discussion

This research was conducted in June 2024 in Tanjung Morawa District, Deli Serdang Regency, respondents in this study ranged in age > 35 years.

Variable	Frequency	Presentation
Age		
<50	11	36,6%
>50	19	63,4%
Gender		
Man	14	46,6%
Woman	16	53,4%
Lifestyle		
Dietary habit		
Consume saturated fat	5	16,7%
Do not Consume saturated fat	25	83,3%
Smoke		
Active smoker	10	34,3%
Passive smoker	20	66,7%
Physical activity		
Axercise regularly	18	60%
Not exercising	12	40%
Coronary heart disease		
Sufferers of coronary heart diasease	3	10%
Not Sufferers from coronary heart diasease	27	90%

It is known that 11 respondents were under 50 years old (36.6%) and 19 respondents over 50 years old (63.4%) based on an age frequency of 30 respondents. Based on the classification of respondents based on gender, there were 16 female respondents (53.4%) and 14 male respondents (46.6%). According to research by Farahdika (2015), there is no relationship between the incidence of CHD and gender. This is in accordance with the theory put forward by Lewis et al. (2007), who argue that men are more likely than women to experience morbidity due to CHD before menopause because

women have the protective hormone estrogen; However, after menopause, women have the same risk of developing coronary heart disease. with men. According to research by Hariadi and Ali (2008), men experienced a greater incidence rate—64.7% compared to 35.3%—than women. CHD morbidity and mortality rates increase with age. Although cases of CHD gradually increase between the ages of 30 and 50 years, clinical symptoms can be observed as early as two decades of age. Although changing diet and lowering other risk factors may change the trend in older individuals in the future, the majority of heart attack victims are aged 65 years or older, accounting for 55% of those who suffer from the disease and four out of five people die from the disease. he. Today's vulnerable individuals are a reflection of the inadequate medical care of the past. (Siregar 2009).

25 respondents (83.3%) and 5 respondents (16.7%) did not consume saturated fat according to their diet. Fat or cholesterol deposits in the artery walls block the coronary arteries, causing CHD. The process of blood supply to the heart is disrupted due to obstruction of the fat and cholesterol layer. Heart attacks are caused by blood flow being obstructed by a layer of fat. The condition in which plaque builds up on the inside of the coronary arteries is known as coronary artery disease, according to the National Heart Lung and Blood Institute. The heart muscle receives oxygen-rich blood from these arteries. Consuming too much fat can be harmful to health because it increases blood fat levels which can cause coronary heart disease.

Based on their smoking habits, 20 respondents (66.7%) were passive smokers and 10 respondents (34.3%) were active smokers. Quitting smoking reduces the chance of a heart attack because it is a major risk factor for heart disease, including heart attack and stroke. There is also a strong correlation between smoking and congestive heart failure (CHD). 10 Dangerous ingredients contained in cigarettes include nicotine, carbon monoxide and oxidative gas. About 90% of these chemicals are quickly processed by the liver and then eliminated by the kidneys. Residual concentrations of this drug will remain in the bloodstream for six to eight hours. that more than 7,000 chemicals, most of which are toxic and harm the cells of the body's organs, are contained in cigarettes. The degree of CHD risk in respondents is influenced by the number of cigarettes they smoke; The more cigarettes a smoker smokes, the higher his chances of developing coronary heart disease. In women of childbearing age, there is a correlation between the risk of CHD and excessive exposure to cigarette smoke. According to Supriyono (2008), individuals who do not have direct contact with active smokers have a 20–30% higher risk of developing congestive heart failure (CHD) due to passive smoking. Passive smokers not only feel the negative impacts of smoking, but active smokers also experience the same thing. Passive smokers not only feel the negative impacts of smoking, but active smokers also experience the same thing. When compared to active smokers, passive smokers inhale twice as many toxins from cigarette smoke. In addition, smokers emit smoke from their cigarettes. Compared to the cigarettes they inhale, active smokers' smoke contains higher levels of tar and nicotine. Blood vessels can cause damage to the walls of blood vessels. Nicotine from cigarettes stimulates the hormone adrenaline, which changes fat metabolism and reduces the amount of high-density lipoprotein (HDL). In addition to toning blood vessels, adrenaline increases activity. The heart, so that all constriction processes take place, also induces platelet clumping. It seems that smoking can be a major cause of coronary heart disease. In addition, the hormone adrenaline, which speeds up the heart and increases blood pressure, can increase in response to the nicotine in cigarette smoke. Hypertension is the result of increased blood pressure and increased heart workload.

Thirty respondents classified physical activity and found that twelve people (40%) and eighteen people (60%) did not exercise regularly. that those who do not exercise regularly are more likely to develop coronary heart disease (CHD) than those who exercise. This is in line with research conducted in 2005 by Hariadi & Ali, which found that regular exercise can reduce the risk of coronary heart disease. This study shows that those who rarely or never exercise are more likely to develop coronary heart disease. Exercise and coronary heart disease were not significantly correlated, according to hypothesis

testing results. This suggests that although regular exercise can reduce the risk of coronary heart disease in some people, exercise itself is not directly related to the condition.

It turned out that 3 people (10%) suffered from CHD and 27 people (90%) did not, based on the frequency of 30 samples.

Conclusion

Three out of thirty respondents in Tanjung Morawa Regency, who were over 35 years old, suffered from coronary heart disease. Physical activity, smoking habits, and diet all impact the prevalence of coronary heart disease. In Tanjung Morawa District, increasing public awareness about healthy nutrition will help them make better food choices, not smoke and become passive smokers, and do regular exercise to reduce the condition and prevalence of coronary heart disease.

Suggestion

Therefore, to prevent coronary heart disease in Tanjung Morawa District, the government needs to make a plan that includes education about good eating habits, the risks of smoking, and the importance of regular exercise.

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