

The Relationship of Personality Type with the Incident of Coronary Heart Disease in the Cvcu Room of Labuang Baji Rsud Makassar

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ABSTRACT

One of the heart diseases that causes the highest number of deaths in the world is coronary heart disease (CHD). In Indonesia, the prevalence of coronary heart disease based on a doctor's diagnosis is 0.5% or around 883,447 people, while based on a doctor's diagnosis and symptoms it is 1.5% or around 2,650,340 people. In South Sulawesi Province in 2014 there were 204 old cases of coronary heart disease and 104 new cases. In the city of Makassar in 2014, heart disease was still in second place with a total of 449 cases. In 2016, 253 people were diagnosed at Labuang Baji Makassar Hospital, 50 of whom were diagnosed with coronary heart disease. The aim of the research was to determine the relationship between personality type and the incidence of coronary heart disease in the CVCU Room at Labuang Baji Hospital, Makassar. The type of research is non-experimental research, analytical method, cross sectional design. The research was carried out in the CVCU Room at Labuang Baji District Hospital, Makassar, from 11 to 25 April 2017 with a sample size of 35 respondents using accidental sampling technique. The results of Fisher's exact test obtained a p value = $0.001 < 0.05$, meaning that there is a relationship between personality type and the incidence of coronary heart disease in patients being treated in the CVCU Room at Labuang Baji Hospital, Makassar. It was concluded that type A personality is at greater risk of suffering from coronary heart disease compared to people who have type B personality. It is recommended that health service workers, especially nurses in the CVCU Room at Labuang Baji Hospital, Makassar, carry out psychological assessments to identify the type of personality the patient has.

Keywords: *Personality Type, Coronary Heart Disease, The Relationship of Personality Type with the Incident of Coronary Heart Disease*

INTRODUCTION

Changes in the lifestyle of Indonesian people cause many risk factors that can cause heart disease, one of which is Coronary Heart Disease (CHD). Heart disease is now increasingly common, even in young adults due to very high activity and unhealthy lifestyles (Saptawati, 2013).

One of the heart diseases that causes the highest number of deaths in the world is coronary heart disease (CHD) or also called Acute Coronary Syndrome (ACS). Coronary heart disease is a disruption in heart function due to a lack of blood in the heart muscle due to narrowing of the coronary arteries. Defined as CHD if you have ever been diagnosed with CHD (angina pectoris and/or myocardial infarction) by a doctor or have never been diagnosed with CHD but have experienced symptoms/history of: chest pain, feeling of severe pressure, pain felt in the middle/left front of the chest radiating to the arm left and is felt when climbing, climbing stairs, walking hastily and pain/discomfort in the chest disappears when stopping activity/resting (Ministry of Health of the Republic of Indonesia, 2013).

Coronary heart disease occurs due to narrowing/blockage in the walls of the coronary arteries due to deposits of fat and cholesterol which gradually accumulate in the walls of the arteries, causing the blood supply to the heart to be disrupted. The buildup process that occurs is called atherosclerosis and can occur in other arteries, not just the coronary arteries. Changes in

lifestyle, diet, stress and personality can also cause coronary heart disease. Coronary heart disease can cause the heart's pumping power to weaken so that blood does not circulate properly throughout the body (heart failure) (Kasron, 2012).

Coronary heart disease (CHD) is the single largest cause of death in developed and developing countries. According to WHO (World Health Organization), around 9.4 million deaths each year are caused by cardiovascular disease and 45% of these deaths are caused by coronary heart disease (Ministry of Health of the Republic of Indonesia, 2013).

WHO estimates that deaths due to CHD in Indonesia reach 17.5% of total deaths in Indonesia (Ministry of Health of the Republic of Indonesia, 2013). Riskesdas data (2013), coronary heart disease is in the seventh highest position of PTM (Non-Communicable Disease) in Indonesia. The prevalence of coronary heart disease based on a doctor's diagnosis in Indonesia is 0.5% or estimated at around 883,447 people, while based on a doctor's diagnosis and symptoms it is 1.5% or estimated at around 2,650,340 people.

According to the 2013 Riskesdas results, the prevalence of coronary heart disease (CHD) diagnosed by doctors or symptoms increased with increasing age, highest in the 65 -74 year age group, namely 2.1%, then decreased in the ≥ 75 year age group. The prevalence of CHD diagnosed by a doctor or based on a doctor's diagnosis or symptoms between women and men is not that different (South Sulawesi Provincial Government Health Office, 2015).

According to Riskesdas 2013, South Sulawesi Province is one of the provinces with the highest prevalence of coronary heart disease in those aged ≥ 15 years, based on a doctor's diagnosis, namely 0.6%, while based on symptoms (without a doctor's diagnosis) it is 2.9% (Ministry of Health of the Republic of Indonesia, 2014). Based on non-communicable disease surveillance data from the P2PL Sector of the South Sulawesi Provincial Health Service in 2014, there were 957 cases of heart disease, consisting of coronary heart disease, 204 old cases, 104 new cases, 4 deaths, 320 new cases of acute myocardial infarction, 39 old cases, 41. deaths, subsequent myocardial infarction 191 new cases and 97 old cases with 8 deaths (South Sulawesi Provincial Health Office, 2015).

Based on the report from the P2PL Development Division of the Makassar City Health Office in 2012, heart disease was in third place out of the ten main causes of death in the city of Makassar with a total of 454 cases, in 2013 heart disease was in second place with a total of 469 cases, and in 2014 Heart disease is still in second place with a total of 449 cases (Makassar City Government Health Office, 2015).

An initial survey conducted at the Labuang Baji Makassar Regional Hospital, obtained data on patients treated in the CVCU Room at the Labuang Baji Makassar Regional Hospital in 2014 as many as 292 people, 40 people were diagnosed with coronary heart disease, in 2015 there were 326 people, 52 people were diagnosed with coronary heart disease, and in 2016 as many as 253 people, 50 people were diagnosed with coronary heart disease (Medical Records of Labuang Baji Hospital Makassar, 2017).

The high rate of morbidity and mortality caused by coronary heart disease is because most people do not know the risk factors that influence the onset of atherosclerosis and ultimately can lead to CHD. CHD risk factors consist of factors that cannot be controlled and factors that can be controlled. Factors that cannot be controlled (nonmodifiable risk factors) consist of heredity, age (the older the risk, the greater the risk), gender (men have a higher risk than women, women's risk increases after menopause). Meanwhile, factors that can be controlled (modifiable risk factors) consist of dyslipidemia, high blood pressure (hypertension), smoking, diabetes mellitus, stress and personality, overweight and obesity (Maulana M, 2015).

There are 2 types of personality, namely type A personality and type B personality. People with type A personality patterns have a style of life activity that is characterized by the following: competition, hard work to achieve certain goals, easily aroused anger, a feeling of haste to get things done quickly. fast, always on time, impatient, sudden attitude and speaking and quick gestures as well as concentration on self-chosen goals until things are not accepted, and following several other aspects of the environment. People who have a type A personality, the opposite is a

type B personality, which is characterized by the characteristics: relaxed, not rushed, not easily stimulated, and having their speech and gesture patterns changed to be calmer (Friedman, 1969, quoted in Sumiati, et al, 2010).

In the Framingham study, a number of psychosocial factors were found to be associated with coronary heart disease. In this study, it was found that type A men had a higher risk of coronary heart disease compared to type B. The findings in men also showed a similar risk in type A women. Working women were more likely than housewives to have type A behavior, marital incompatibility , job mobility, daily stress, or marital dissatisfaction trigger the risk of coronary heart disease (Sumiati, et al, 2010).

METHODS

This type of research is non-experimental research with analytical methods, using a cross-sectional design, where the relationship between personality type and the incidence of coronary heart disease is observed at the same time (one time), meaning that each subject is observed only once. The population in this study were all patients treated in the CVCU Room at Labuang Baji District Hospital, Makassar. The sample in this study was 35 patients treated in the CVCU Room at Labuang Baji District Hospital, Makassar. Data collection was carried out through direct interviews with respondents. The instrument in this study was a questionnaire using the Guttman scale to measure the relationship between personality type and the incidence of coronary heart disease.

RESULTS

Table 1. Relationship between personality type and the incidence of coronary heart disease in patients in the CVCU room at Labuang Baji Regional Hospital, Makassar

Personality type	Incidence of Coronary Heart Disease				Total		p-Value
	Happen		Not occur		n	%	
	n	%	n	%			
Type A personality	24	92,3	2	7,7	26	100,0	0,001
Type B personality	3	33,3	6	66,7	9	100,0	
Total	27	77,1	8	22,9	35	100,0	

Source: Primary Data

Table 1 shows that there are 26 respondents who have type A personality, the majority of respondents suffer from coronary heart disease, namely 24 people (92.3%), and 2 people (7.7%) do not suffer from coronary heart disease. Meanwhile, 9 people had type B personality, most of whom did not suffer from coronary heart disease, namely 6 people (66.7%), and 3 people (33.3%) suffered from coronary heart disease.

The results of the alternative Fisher's exact test obtained a p value = 0.001 < 0.05, meaning that the hypothesis was accepted so it was concluded that there was a relationship between personality type and the incidence of coronary heart disease in patients being treated in the CVCU Room at Labuang Baji Hospital, Makassar.

DISCUSSION

Respondent Characteristics

The research results showed that the largest age group of respondents was the age group \geq 56 years, namely 23 people (65.7%). This is because at this age the body's functions begin to decline so that at this age they are susceptible to suffering from certain diseases, one of which is coronary heart disease. The older a person is, the easier it is to get coronary heart disease (Anglo Shandinavian Cardiac Outcomes Trial/ASCOT). According to Patriyani R.E & Purwanto D.F (2012), those over 40 years old have a greater risk of experiencing CHD. Susceptibility to coronary atherosclerosis increases with age.

Based on gender, it shows that most respondents were men, namely 26 people (74.3%). This is because men's burdens and responsibilities are greater than women's, so that if responsibilities cannot be fulfilled properly it will trigger stress which can result in coronary heart

disease, in addition to unhealthy lifestyles such as smoking, drinking. Alcoholic drinking can also trigger coronary heart disease. According to the AHA (2007), quoted in Patriyani R.E & Purwanto D.F (2012), men have a greater risk of having a heart attack and it occurs earlier than women.

Based on education level, it shows that the majority of respondents' last education was high school, namely 15 people (42.9%). A person's education can influence their knowledge so that the higher a person's education, it is hoped that the knowledge they have will also be better. Someone who has insufficient knowledge about the risk of coronary heart disease will be vulnerable to suffering from this disease because they do not know the prevention so that the risk of coronary heart disease does not occur. According to Budiman & Riyanto A (2013), knowledge is closely related to education, where it is hoped that with higher education, that person will have broader knowledge. However, it needs to be emphasized that someone with low education does not mean absolutely low knowledge. Increased knowledge is not absolutely obtained in formal education, but can also be obtained in non-formal education.

Meanwhile, based on occupation, most respondents worked as entrepreneurs, namely 18 people (51.4%). This is because someone who works as an entrepreneur has an erratic work intensity so they do not have much time to exercise, which can increase the risk of heart disease. According to Patriyani R.E & Purwanto D.F (2012), in people who do not move enough, the collateral blood vessels from the coronary arteries are also reduced so that blood flow to the heart is reduced. During physical exercise, two changes will occur in the cardiovascular system, namely an increase in cardiac output and a redistribution of blood flow from less active organs to active organs.

Relationship Between Personality Type and the Incidence of Coronary Heart Disease

Personality includes all patterns of behavior and traits that are typical and predictable in a person, which are used to react and adapt to stimuli, so that the pattern of behavior forms a functional unit that is unique to that individual.

The research results showed that of the 35 respondents studied, there were 26 respondents who had type A personalities, most of whom suffered from coronary heart disease, namely 24 people (92.3%). This is because people with type A personality have a tendency to experience higher levels of stress, because they put themselves under time pressure by creating a certain time limit for their lives which can lead to certain behavioral characteristics, for example emotional uncontrollability. can be controlled and desires are so great that if this is not achieved it can trigger stress events which result in coronary heart disease. However, the research results found that 2 people (7.7%) of respondents did not suffer from coronary heart disease even though they had a type A personality. This is because coronary heart disease can be triggered by many factors other than a person's personality type, for example: age, genetic factors, unhealthy lifestyles such as smoking habits and lack of physical activity.

Meanwhile, there were 9 respondents who had personality type B, most of whom did not suffer from coronary heart disease, namely 6 people (66.7%). This is because someone with a type B personality has very little risk of experiencing stress because they are unemotional, not too ambitious and are easily satisfied with every achievement they get so they are calmer in carrying out every activity. However, the research results found that 3 people (33.3%) of respondents suffered from coronary heart disease. This can be caused by unhealthy lifestyle factors such as smoking habits. Smoking is the biggest bad habit in society. The ingredients in cigarettes are nicotine and carbon monoxide which can increase blood pressure and speed up the heart rate, and make it easier for blood to clot so that blood vessels become blocked. Apart from that, it can also be caused by a lack of physical activity, because people who don't move or exercise tend to become fat, which has the potential to suffer from diabetes, high blood pressure and increased cholesterol levels in the blood. This situation can increase the risk of heart disease.

The results of the alternative Fisher's exact test obtained a p value = $0.001 < 0.05$, meaning that H_a was accepted so it was concluded that there was a relationship between personality type and the incidence of coronary heart disease in patients being treated in the CVCU Room at Labuang Baji Hospital, Makassar. Research shows that there is a relationship between psychological stress factors and the incidence of heart disease. Continuous/long-lasting stress will increase catecholamine levels and blood pressure, resulting in narrowing of the coronary arteries. This is in accordance with the theory put forward by Sumiati, et al (2010) that certain personality

types have a higher risk of heart attacks. Behavior that is susceptible to coronary disease is type A personality, which has characteristics including: aggressive, competitive, rude, cynical, desire to be seen, desire to achieve something, sleep disorders, road rage, etc. Type B personalities include people who feel lucky more easily, are not too ambitious, and are easily satisfied have a lower risk of suffering from CHD than those with type A personalities.

In the Framingham study, a number of psychosocial factors were found to be associated with coronary heart disease. In this study, it was found that type A men had a higher risk of coronary heart disease compared to type B. The findings in men also showed a similar risk in type A women. Working women were more likely than housewives to have type A behavior, marital incompatibility, job mobility, daily stress, or marital dissatisfaction trigger the risk of coronary heart disease (Sumiati, et al, 2010).

Personality is the whole person, namely how a person feels about his actions, both consciously and unconsciously, as expressed in interactions with his environment (Gunarsa & Yulia, 2014).

Some experts say that people who often experience negative stress are closely related to a person's personality type. Excessive stress can cause the risk of coronary heart disease (Chesney, 1980, quoted in Sumiati, et al, 2010).

A certain type of personality turns out to be a risk factor for coronary heart disease, which is known as type A personality which is characterized by traits such as: impatience, always wanting to excel, always "having to", and big ambition. People who have type A personality do not easily manage sudden and intense emotions such as being very shocked, very angry, very disappointed, very sad, very happy, and so on, so these events can trigger a sudden heart attack or stroke. Prolonged mental stress triggers a continuous increase in catecholamine substances, thus facilitating the process of hypertension and atherosclerosis (Cahyono S, 2012).

Based on the discussion presented above, the researchers concluded that type A personalities are at greater risk of suffering from coronary heart disease compared to people who have type B personalities.

CONCLUSION

Based on the results of research on the relationship between personality type and the incidence of coronary heart disease in the CVCU Room at Labuang Baji District Hospital, Makassar, it was concluded that; (1) Of the 35 respondents studied, the most respondents were respondents with type A personality, namely 26 people (74.3%); (2) Of the 35 respondents studied, the most respondents were respondents who suffered from coronary heart disease, namely 27 people (77.1%); (3) There is a relationship between personality type and the incidence of coronary heart disease in patients being treated in the CVCU Room at Labuang Baji District Hospital, Makassar, with a value of $p = 0.001 < 0.05$.

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