

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of The Research

Cardiovascular disease is the number one causes of death of non-communicable diseases (PTM) in which more than 36 million people died because of it (WHO, 2018). Hypertension is one of main risk factors of cardiovascular disease and cause of heart failure, sudden death, stroke, coronary heart disease, and renal insufficiency. Hypertension has a risk to lead a stroke and heart failure (Raihan and Dewi, 2009). Based on WHO data (WHO, 2013), 45% of death is due to heart disease which was caused by hypertension as well as 51% of death is due to stroke. It proves that ignoring hypertension will increase the possibility of life-threatening complications.

Hypertension causes the heart to work beyond reasonable limits in pumping blood to circulate oxygen and nutrients from the body through blood vessels so that blood pressure increases. By increase blood pressure, dangerous consequences of the heart and blood vessels in major organs such as the brain and kidneys will also increase (Susilo et al., 2011). In addition to damaging the primary organs, hypertension affects eyes disfunction and end in blindness if it's untreated. Blood pressure increased in hypertensive people because of many factors, such as gender, age, genetics, diet, exercise habits, stress levels and others (WHO, 2018). So, the prevalence of hypertension is strongly influenced by the description of these factors in a community.

According to the Indonesian Ministry of Health (WHO, 2018), the prevalence of hypertension in Indonesia obtained through measurements in which it is  $\geq 18$  years old increased to 34.1% compared to the previous year. Based on data from the Health Office (Ministry of Health, 2016), the proportion of hypertension in the province of Central Java is 60%. Meanwhile the second highest after hypertension is Diabetes Mellitus

which is 16.42%. In this case, Surakarta City included in the ten highest hypertension in Central Java which is 23.12% covering 21.91% men and 23.98% women. At the Aisyiyah Nursing home in Surakarta, data was obtained from 30 elderly and half of them suffering hypertension in which the average elderly had high blood pressure before entering the nursing home. According to Sustrani (2006), diet is a way to regulate a balanced nutritional intake in which it is needed by the body. Food can be a way to cure hypertension without giving a severe indication and does not cause dependence on people with hypertension.

In the Qur'an and Hadith, it has mentioned that some food is beneficial for health even had function as drugs, such as fruit, olive oil, pomegranate, milk, meat, dates (ruthab, balah, and tamer), grapes, bananas, ginger and honey (As-Sayyid, 2006). One of the common dietary patterns by the Prophet Muhammad is a glass of water mixed by honey taken before meals to maintain health. Ibn Qayyim Al-Jauziyyah in his Book *Zad Al-Ma'ad* (Shalih, 2012) describes the hadith of Imam Bukhari about treating with honey in which honey as nutritious food, medicine, sweet food, and liquid relieves among other foods and there was not some exceed substances than honey compound.

قَالَ رَسُولُ اللَّهِ: الشِّفَاءُ فِي ثَلَاثٍ : شَرْبَةَ عَسَلٍ وَشَرْطَةَ مِخْجَمٍ وَكَيْتَةَ نَارٍ وَأْتَهَى  
أُمَّتِي عَنِ الْكَيْتِ (رواه البخاري)

*“Indeed, the drug is in three cases, namely drinking honey, sticking and kayy with fire, then it is forbidden for my people to have a kayy with that fire.” (Hadith narrated by al-Bukhari)*

Honey has a useful role in regulating blood pressure in which honey can reduce the effectiveness of salt in food. Honey can attract water and reduce amount of water in the blood so it would lower blood pressure (Shalih, 2012). A previous study revealed the effect of honey in lowering blood pressure at a dose of 20 ml given daily for one year. The antioxidants found in honey reduce blood pressure through a mechanism of coronary

artery vasodilation which has a hypotensive effect (Aluko et al., 2014). The same research about honey have been done by Nurhaedar (Jafar, 2013) that showed honey water can reduce blood glucose and blood pressure (Jafar, Hamid and Najamuddin, 2017) in diabetic type 2 with a dose of 35 ml in the morning and evening. Hasan Alzahrani proved in his research that three types of honey from different geographical places have high phenol content correlated with antioxidant effectiveness (Alzahrani et al., 2012). Following research conducted by Erejuwa Omotayo proved that the antioxidants contained in honey affect blood pressure in diabetic rats (Erejuwa et al., 2012) In addition to natural antioxidants, some vitamins have antioxidant effects such as vitamin D, E, C and some micronutrients (magnesium, potassium, calcium) have a positive influence on reducing blood pressure (Sorriento et al., 2018).

Among previous studies, there is no studies which has linked to Islamization of consumption of honey as the Sunnah of Rasulullah SAW to elderly blood pressure. Based on the description above, then it becomes an important thing to study about the influence of honey water as one of sunnah, mainly if it associated with blood pressure in the elderly.

## **1.2 Formulation of The Research Problem**

Does honey water affect on blood pressure in elderly with hypertension?

## **1.3 Objective of The Research**

### **1.3.1 General Objective**

Knowing the effect of honey water on blood pressure in elderly with hypertension

### **1.3.2 Specific Objective**

1. Knowing blood pressure before and after giving of honey water in elderly with hypertension
2. Knowing the effect of honey water with a dose of 35 gr

- honey on blood pressure in elderly with hypertension
3. Knowing the effect of honey water with a dose of 70 gr honey on blood pressure in elderly with hypertension

#### **1.4 Benefit of The Research**

##### 1.4.1 For Respondents

1. Being considered in the management of hypertension so that it can be used as an effort to prevent hypertension
2. Being one of the alternative treatments for people with hypertension to gradually reduce blood pressure and control blood pressure as a form of natural preventive action which has relatively few side effects

##### 1.4.2 For Institution

It is expected giving contribution ideas to the center of Islamization of knowledge about the benefits of honey as one of the circumcised foods of Rasulullah SAW that can affect health

##### 1.4.3 For Researchers

This study is expected giving a reference for the development of Islamization in further studies of the effect of honey water in improving health

#### **1.5. Authenticity and Previous Research**

The study about the effect of drinking honey water on blood pressure in patients with hypertension is based on a preliminary study about the effect of giving honey on blood pressure status. The differences in this research compared to previous studies are as follows:

**Table 1.Preliminary Research**

Researcher/ year	Title	Methods	Result	Difference
Emilia Puspitasari/ 2016	The Effect of Giving Green and Honey Tea on Decreasing Blood Pressure in Hypertensive Patients in RW 24 Pringgokusuman Village Yogyakarta.	Quasi-Experiment, pre-post-test nonequivalent control group design	Giving green tea affects the decrease in blood pressure in patients with hypertension in RW 24 Pringgokusuman Village Yogyakarta.	The independent variables used were green tea and honey. The sampling technique was simple random sampling (lottery technique) which was 20 people divided into two groups during January 2016.
Rahimatul Aimi/2018	The Effect of Giving Honey on Changing of Blood Pressure in Hypertensive Patients at the Equatorial Health Center UPK North Pontianak District.	Quasi-Experiment, pre-post-test nonequivalent control group design	There was a significant effect of giving honey on reducing blood pressure in hypertension patients at the Equatorial Health Center UPK North Pontianak District.	The number of samples is 40 people aged 45-60 years and over employing the sampling technique in form of the accidental sampling method. Research time was 14 days. There is dietary hypertension counselling in each treatment.

Aluko, Olusola et al/2014	Honey's Ability to Reduce Blood Pressure and Heart Rate in Healthy Male Subject. Frontiers in Science Journal Vol. 4 No.1	Pre-Experimental, one group pre-posttest design	In a short period, giving of honey can reduce blood pressure in healthy male students.	The study use sample of 50 healthy male students aged 18-25 years. The study was taken in 3 different times, namely 15 minutes, 30 minutes and 60 minutes after giving of 35 ml honey.
Dwi Tias Fitriani/2013	The effectiveness of Curcuma in Reducing Blood Pressure in the Elderly at UPT Social Nursing home Tresna Werdha Mulia Dharma Kubu Raya District	Pre-Experimental, one group pre-posttest design	There is an alteration in the value of systole and diastole before and after giving ginger at the UPT Social Nursing home Tresna Werdha Mulia Dharma, Kubu Raya District.	Independent variable used was Curcuma. The total sample were 12 respondents consisted of 7 men and five women aged 65-75 years.