

CHAPTER I

INTRODUCTION

1.1 Background

Food is needed for life because food is one of the basic needs of human life. Food serves to maintain the process body in growth or development and to replace damaged body tissue, obtaining energy for daily activities, regulating metabolism and various balances of water, minerals, and other bodily fluids, also play a role in the body's defence mechanisms against various diseases (Notoatmodjo, 2003). Food has a significant role in public health. This can be happen because food can act as an intermediary or substrate for the growth of pathogenic microorganisms and other organisms that cause disease (Cahyadi, 2008).

Allah sent the Prophet Muhammad as a guide and role model for Muslims. His teachings cover the happiness of the world and the afterlife such as matters of worship, community, family, politics and others. Including his guidance and example is how to eat. It is essential for us as Muslims to know so that we can lie healthy and enjoy life (Hidayati, 2012). One of them is his teaching in eating ethics is about the prohibition of blowing food, as narrated by Ibn Majah:

حَدَّثَنَا أَبُو كُرَيْبٍ، حَدَّثَنَا عَبْدُ الرَّحِيمِ بْنُ عَبْدِ الرَّحْمَنِ الْمُحَارِبِيُّ، حَدَّثَنَا شَرِيكٌ،
عَنْ عَبْدِ الْكَرِيمِ، عَنْ عِكْرِمَةَ، عَنْ ابْنِ عَبَّاسٍ، قَالَ : لَمْ يَكُنْ رَسُولُ اللَّهِ صَلَّى اللَّهُ
عَلَيْهِ وَسَلَّمَ يَنْفُخُ فِي طَعَامٍ وَلَا شَرَابٍ وَلَا يَتَنَفَّسُ فِي الْإِنَاءِ (رواه ابن ماجه)

حَدَّثَنَا أَبُو كُرَيْبٍ، حَدَّثَنَا عَبْدُ الرَّحِيمِ بْنُ عَبْدِ الرَّحْمَنِ الْمُحَارِبِيُّ، حَدَّثَنَا شَرِيكٌ،
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Which mean:

Abu Kuraib told us, Abd al-Rahim bin 'Abd al-Rahman al-Muharibi told us, Sharik told us from 'Abd al-Karim from 'Ikrimah from Ibnu 'Abbas, he said: "The Messenger PUBH was never blew food and drink, and he was also not breath in the vessel (H.R. Ibnu Majah).

The other hadith said: *Abu Bakar bin Khallad al-Bahili told us, Sufyan told us from 'Abd al-Karim from 'Ikrimah from Ibnu 'Abbas, he said: "The Messenger PBUH was forbade to blow in the vessel (when drink). (H.R. Ibnu Majah) (Yazeed, 2007).*

One of the behaviours of food handlers when finding hot food is blowing, while blowing food is one of the bad behaviours because besides being forbidden by the Prophet Muhammad SAW the spread of bacteria could occur inhalation (by air) (Putri, 2017). Blowing food is proven to increase the number of bacteria in food. There is a significant difference in the number of bacteria between the media that is blown and not blown (Mustika, 2018). Whereas research conducted by Dawson (2017) states that blowing out the candles over the icing surface resulted in 1400% more bacteria compared to icing not blown on. Blowing food can also affect metabolic balance because when CO₂ or carbon dioxide comes out of respiration if it encounters H₂O it will form H₂CO₃ which if too much will cause the body to be in acidosis (Dewan, 2002).

An alternative solution that is usually done by food handler besides blowing are fanning and letting the food cool in open space. Knowing these facts the researchers were interested in researching the difference in behavior of blowing, fanning, and leaving food in open air against the amount and type of microorganisms, considering food safety is an important aspect to protect consumers from the effects of poisoning produced by microorganisms, especially caused by the hygiene practice of food handlers.

1.2 Formulation of the Research Problem

The points that will become the basic problem of this research are: What are the difference of blowing, fanning, and leaving food in open air against the amount and type of microorganisms.”

1.3 Research purposes

1.3.1 General purpose

Knowing the difference of blowing, fanning, and leaving food in open air against the amount and type of microorganisms.

1.3.2 Specific Purpose

1. Knowing the number of colonies of microorganisms in food that are blown, fanned, and left in open air.
2. Knowing what microorganisms that found in food that are blown, fanned and left in open air.

1.4 Benefits of Research

1.4.1 Benefit For the Community

This study provides information about the differences of the amount and types of microorganisms in food cooling method that being blown, fanned and left in open air to increase people’s knowledge about the differences in the practice of handling food. It is hoped that with this information the public can decide the act of practising handling food wisely.

1.4.2 Benefit For Researchers

This research provides additional experience and knowledge for researchers about the effect of hot food cooling method behaviour on the amount and type of microorganisms.

1.5. Authenticity of Research

Table 1. 1 Authenticity and Formers Research

No	Title	Variables & Design	Result	Difference
1.	Bacterial Transfer Associated with Blowing Out Candles on a Birthday Cake (Dawson, 2017)	Dependent variable: the number of bacteria on icing cake that blown on Independent variable: the number of bacteria on icing cake that not blown on	Blowing out the candles over the icing surface resulted in 1400% more bacteria compared to icing not blown on	This research is comparing the amount and the increase of the number of bacteria
2.	Identification of Number of Bacterial Colonies and Bacterial Types in Sempol Snacks Sold by Traders (As Biology Learning Resources) (Wahyuningsih, 2017)	Dependent variable: Identification of the Number of Bacterial Colonies and Bacterial Types Independent variable: the perfect snack sold by the traders	The highest number of bacterial colonies was in sample B (4.8×10^6 CFU / g) with a presentation of 23.13%, while the lowest number of colonies was in sample E (1.35×10^6 CFU / g) with a presentation of 6.5 %. All sempol samples did not meet the requirements for safe consumption	This research used sempol snack for the sample

No	Title	Variables & Design	Result	Difference
3.	Analisis Hadits Rasulullah SAW Mengenai Pengaruh Meniup Makanan dan Minuman Panas terhadap Jumlah dan Jenis Gram Mikroorganisme (Mustika, 2018)	Dependent variable: hot food and drinks that are blown and not blown Independent variable: number and type of microorganisms	There were significant differences in the number of microorganisms in the dish that are blown and not blown Bacteria found in the form of Gram-negative bacteria	This study used a treatment blowing on agar media plates