

CHAPTER I

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The low coverage of exclusive breastfeeding in Indonesia lead to children less entitled to got exclusive nutritious food for their growth. This is due to the lack of breast milk production. Non-pharmacological treatment such as Moringa powder is expected to be able to increase breast milk production. The aims of study was to determine the effect of Moringa tea consumption to increasing breast milk production. Moringa Leaf Powder is considered a galactagogue in Asia. Anecdotally, nursing mothers swear by it, and one study on effect of moringa in breastfeeding found a positive impact on the supply of breastmilk. The low coverage of exclusive breastfeeding lead to children less entitled to got exclusive nutritious food for their growth. This is due to the lack of breast milk production. Non-pharmacological treatment such as Moringa leaf consumption is expected to be able to increase breast milk production. Moringa leaves do contain Phytosterol compounds which function to increase and facilitate breast milk production (lactogogum effect) (Kurniasih, 2013). Apart from Phytocerols, Moringa leaves also contain Fe 5.49 mg/100gr and also 1.15%/100gr sitosterol and 1.52%/100gr stigmasterol, where these substances are able to stimulate increased milk production (Nurchayati, 2014).

Meanwhile spinach Powder is rich in vitamin B6, thiamin protein, folic acid, potassium and other necessary vitamins. Vitamin B6 will help in providing supplies of breast milk production. Apart from that, spinach is a source of important nutrients for breastfeeding mothers (Rachmawati, 2009). Health experts recommend breastfeeding moms to consume spinach and other leafy greens. These vegetables are rich in iron, calcium, folate, and vitamin K, which support lactation. Spinach is particularly beneficial due to its high content of phytoestrogens. By increasing the addition of spinach nano-powder

with retentate its content of fiber, minerals, total phenolic content, and antioxidant activity was improved.

Dates is one ingredients that can increast production of breas milk, dates are a fruit that has a high enough glucose content, so in that case we use this fruit as artificial sweeteners. In general use of dates is used a stabilizer and a natural sweetener (Anonymous, 2018). Subtitution of sugar with dates has a significant effect on the level of preference for taste, color and texture (Anonymous, 2018). Dates as one type of fruit has a number of compounds high in *polyphenols* and also rich in fiber. It's function is good for maintaining the health of the canal digestion . Dates is a source of several minerals, such as substances iron, potassium, calcium and rich in *phenolic antioxidants*. Dates are a delicious and nutritious fruit that can benefit breastfeeding moms in numerous ways. They can help increase milk production, provide essential nutrients, aid in postpartum recovery, and boost energy levels. Based on this, dates has the potential to be used as food functional, because functional food has active components that can provide health benefits and can help increase milk production, provide essential nutrients, aid in postpartum recovery for breastfeeding mothers, and dates contain a hormone similar to the hormone oxytocin, which is a hormone produced by the neurohypophysis. The hormone oxytocin is channeled through the blood to the breasts, this hormone will help stimulate contractions in the veins around the mother's breasts, thereby encouraging the milk glands to produce breast milk (Prianti, A, 2020).

Ginger (*Zingiber Officinale*) is a plant spices originating from South Asia, and now has spread all over the world. In the 16th century, in Asia, ginger has been used as *ingredient* for cooking and traditional medicine thousand of years ago (Ware, 2017). In Indonesia, there are three types of ginger (sunti ginger, elephant ginger, and emprit ginger) that are widely cultivated intensively in the Rejang Lebong (Bengkulu), Bogor, Magelang, Yogyakarta, and Malang are used for cooking spices, medical ingredients herbs, and for drinks (Santoso, 2008). As a cooking spice, the content of

nutrients in ginger can complement the nutrients in the main ingredients and helps improve the digestive process (Ware, 2017). Also ginger is a herbal ingredient that contains galactogue which can help stimulate, maintain or increase breast milk production.

Carrots are a high source of vitamin A and are beneficial for the body. Carrots are a vegetable that contains a lot of vitamin A in the form of beta carotene which the body needs. Apart from that, carrots can also add color to food, so they can make the food look more beautiful, attractive and add nutritional value and carotene can function as an antioxidant for the human body. Carrots contain vitamin A and beta carotene which can increase energy for producing breast milk. Of course, good breast milk production will influence on baby's growth and development. Carrots are even called a galactagogue food. This term is used to refer to foods that are considered good for facilitating and increasing breast milk production. So, apart from katuk leaves or other green vegetables, carrots are also good to consume during the period breast-feed. (Rindi, 2020)

Soy milk a traditional vegetable protein beverage, which is made from whole soybeans. It is originated in China and is now becoming more and more popular in the diets around the world. As it is named "soy milk," its protein content is close to that of cow's milk. Soy milk has many nutrients make it a suitable choice for breastfeeding moms, especially those who can't consume cow's milk. However, soy milk's nutrients would also give health benefits to the breastfed baby. Soy milk has many benefits, especially for breastfeeding mothers because it contains a lot of protein and other substances. Soy milk contains isoflavones which can stimulate the hormones oxotocin and prolactin, alkaloids, polyphenols, steroids, flavonoids and other substances so that it can increase breast milk production.(Maritalia, 2017).

Almonds are actually the seed of a fruit from the almond tree. Like cherries, peaches, and plums, that fruit is a stone fruit, having a fleshy fruit

exterior and a pit on the inside. Almonds are a food that can increase breast milk. These nuts are rich in vitamins and minerals which are good for your baby's development, as well as calcium, iron and Omega-3 which are great for increasing breast milk production. Many nursing people choose to eat almonds or drink almond milk to increase the creaminess, sweetness, and amount of their breast milk.

Gummy candy made from fruit or vegetables have advantages with nutritional value compared with that exist in the market that only originates from the addition of essence from the ingredients chemistry (Hidayat and Ikarisztina,2004). Therefore the product gummy candy with herbal have a great nutrition for breastfeeding mother and good for the health it have a lot of benefits.

1.2 THE OBJECTIVE OF THE STUDY

- To create a gummy candy, which if consumed in large quantities is not good for health, because it use artificial sweeteners and coloring agent, into candy which can be consumed in large quantities, has many benefits, and the taste of candy whose identity is sweet and the effectiveness for the production of breastfeeding milk in nursing mother.
- Creating gummy candy for breastfeeding mother , because this candy is a herbal candy that has many benefits from the special ingredients that have effective and benefits for the production breastfeeding milk , natural sweeteners and natural color.
- Explore the components of spices which have many properties and moringa leaf powder as the main components in gummy candy, so that they have benefits for the production milk on breastfeeding mother, safe from all harmful compounds in candy and safe for consumption.
- To create a new market in herbal candy market. If this product is already

on the market, it means to try perfecting it with my own version.