

Impact of Papaya (*Carica papaya* L.) on Breast Milk Production Enhancement of Nursing Mothers at Teling Atas Public Health Center, Wanea Subdistrict, Manado City

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Abstract

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Introduction

Postpartum is a natural process experienced by women after childbirth that lasts about 6 weeks. There are physiological changes during this period, mainly physical changes, uterine involution and discharge of lochea, psychological changes, and lactation/release of breast milk (ASI). Lactation is when there is a change in the mother's breast to produce breast milk. It is a very complex interaction between mechanical stimuli, nerves, and various hormones so that milk can be released [1].

Breastfeeding is crucial for optimal growth and development, physical and mental, and the baby's intelligence [2]. Exclusive breastfeeding needs special attention from mothers, families, communities, and health workers so that the breastfeeding process can be carried out properly. Balanced nutrition during breastfeeding is important for breastfeeding mothers

BACKGROUND: Papaya fruit which is a type of fruit that has high nutritional content and is rich in health benefits, one of the benefits is to increase breast milk production. Papaya is a fruit that contains galactagogue, a substance that can help increase and improve breast milk production.

AIM: This study aimed to determine papaya fruit's effect on breast milk production in nursing mothers at Teling Atas Public Health Center, Wanea Subdistrict, Manado City, Indonesia.

METHODS: The research method was the pre-experimental method using a before and after intervention design to one group. The study population was all breastfeeding mothers whose babies were aged 0–6 months per June 2019 and a sample size of 14 categorized less breastfeeding, namely, babies often cry; restless baby; the color of the feces dark brown; consistency of solid feces; the baby's mouth and eyes appear dry; dark yellow urine; and baby's weight decreases. The intervention group, namely, getting 200 g of papaya 3 times a day, and given for 7 days (1 week). Data analysis is the Wilcoxon Test.

RESULTS: Most respondents were less breastfeeding before consuming papaya, about 71.43%. Nursing mothers before and after being given papaya for 7 days increased by 4.1. The mean value before the intervention was 2.21, and after the intervention, the level of milk production increase to 6.36. There was a significant difference in the level of milk production before and after papaya intervention ($p = 0.001$).

CONCLUSION: Consuming papaya fruit effectively enhanced breast milk production in nursing mothers.

because it affects breast milk production. Adequacy of nutrition will have an effect on the quality and quantity of breast milk. Proper feeding of babies is to breastfeed the baby exclusively from birth until the age of 6 months. The baby gets nutritious complementary food according to their growth and development needs [3].

The World Health Organization and several countries recommend giving exclusive breastfeeding to babies for the first 6 months after birth and continuing until they are 2 years old [4]. The coverage of exclusive breastfeeding in Indonesia is 61.33%, and this coverage has not reached the national target of 80%. Five provinces have not achieved the 2017 Strategic Plan target, namely, 44%, North Sulawesi, which only got 43.78% [5].

Various factors influence breast milk production. One of the most influential factors is hormonal factors, namely, the hormone prolactin and the hormone oxytocin [6]. Hormone prolactin affects milk production, while oxytocin affects breast milk production. Prolactin is related to the mother's nutritional