Jurnal Aisyah: Jurnal Ilmu Kesehatan

Volume 8, Issue 4, 12 2023, p. 1510–1523
ISSN 2502-4825 (print), ISSN 2502-9495 (online)

POTENTIAL OF COOKIES COOBISANG WITH BISCUITS “MILNA" ON THE INCREASING WEIGHT OF BABIES AGED 6-9 MONTHS

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ABSTRACT

Background: *Complementary food for ASI (MP-ASI) is additional food given to babies after they are 6 months to 24 months old.*
Objective:*Proving the comparative effect of Coobisang Cookies consumption combined with Ambon banana flour (Musa Paradisiaca) and purple sweet potato flour (Ipomea batatas L) with "Milna" Biscuits on weight gain in infants aged 6-9 months.*
Method: *This type of research is True Experimental with the Two Group Pretest and Posttest Design. The independent variables were Coobisang Cookies and "Milna" Biscuits given for 30 days with 2 Coobisang Cookies weighing 24 g/piece and "Milna" Biscuits weighing 22 g/piece. The number of samples in this study were 36 infants aged 6-9 months divided into 2 groups, 18 intervention groups and 18 comparison groups.*
Results: *The effect of the combination of Coobisang Cookies and "Milna" Biscuits for increasing baby weight 6-9 months obtained a p-value of 0.001 <0.05. The average difference in the comparison of Coobisang Cookies (8455 grams) was higher compared to "Milna" Biscuits (8427 grams).*
Conclusion: *Giving Coobisang Cookies can increase the weight of babies aged 6-9 months. Giving Coobisang Cookies can be an alternative based on the difference in weight between complementary foods in the comparison group.*

Keywords: *Complementary Foods for ASI (ASI), Cookies, Ambon Bananas, Purple Sweet Potatoes, Infants Weight Loss, Infants Age 6-9 Months.*

ABSTRAK

Latar Belakang: *Makanan pendamping ASI (MP-ASI) merupakan makanan tambahan yang diberikan kepada bayi setelah berusia 6 bulan sampai 24 bulan.*
Tujuan: *Membuktikan pengaruh perbandingan konsumsi Cookies Coobisang kombinasi tepung pisang ambon (Musa Paradisiaca) dan tepung ubi ungu (Ipomea batatas L) dengan Biskuit "Milna" terhadap peningkatan berat badan bayi usia 6-9 bulan.*
Metode: *Jenis penelitian True Eksperimental dengan rancangan Two Group Pretest and Posttest Design. Variabel independen Cookies Coobisang dan Biskuit "Milna" yang diberikan selama 30 hari dengan Cookies Coobisang 2 keping dengan berat 24 g/keping dan Biskuit "Milna" dengan berat 22 g/keping. Jumlah sampel pada penelitian ini yaitu 36 bayi usia 6-9 bulan dibagi menjadi 2 kelompok 18 kelompok intervensi dan 18 kelompok pembanding.*
Hasil: *Pengaruh kombinasi Cookies Coobisang dan Biskuit "Milna" untuk peningkatan berat badan bayi 6-9 bulan didapatkan p-value sebesar 0,001<0,05. Selisih rata- rata perbandingan Cookies Coobisang (8455 gram) lebih tinggi dibandingkan dengan Biskuit "Milna" (8427 gram).*
Kesimpulan: *Pemberian Cookies Coobisang dapat meningkatan berat badan bayi usia 6-9 bulan. Pemberian Cookies Coobisang dapat menjadi alternative didasarkan pada selisih berat badan MP-ASI pada kelompok pembanding.*

Kata Kunci: *Makanan Pendamping ASI (ASI), Cookies, Pisang Ambon, Ubi Jalar Ungu, Bayi Berat Badan Bayi, Bayi Usia 6-9 Bulan.*

INTRODUCTION

The age of 0-24 months is a period of rapid growth and development, so it is often termed a golden period as well as a critical period. golden period (*golden age*) is a period that needs to be treated as early as possible, because during this time the child's brain experiences the fastest development in its entire life. The golden period can be realized if at this time infants and children receive appropriate nutritional intake for optimal growth and development (Swamilaksita et al., 2019).

The prevalence rate of undernutrition is an alarming number. The prevalence of malnutrition in the world is 14.9% with the highest prevalence in Southeast Asia at 27.3%. The

malnutrition rate in Indonesia is still quite high, namely 17.9% malnutrition, 35.6% stunting, and 13.3% wasting (Rahmadini et al., 2013). The prevalence of thin and very thin toddlers is the nutritional status based on the index of weight for height (BB/TB). Based on reported nutrition program data, the percentage of underweight toddlers in Central Java Province in 2021 is 3.7%. The prevalence of wasting under five in Semarang City is 2.0% in 2021 (Dinas Kesehatan Provinsi Jawa Tengah, 2021).

The prevalence of nutrition in the city of Semarang, a weighing operation survey was carried out in August 2021. This is because the Covid-19 rate increased quite drastically in June 2021 (delta variant) sothat the weighing policy was carried out by survey. In the weighing operation survey, a total of 44,058 infants and toddlers were found with a prevalence of malnutrition of 3.10% (1,367 cases) (Semarang, 2021).

In the child's growth stage, there is a critical period of growth and development, namely the First 1000 Days of Life (HPK). The nutrition and stimulation received by babies has a long-term impact on life as adults. Growth failure in the 1000 HPK period will result in physical growth disorders, metabolic disorders, and especially fat, protein and carbohydrate metabolism disorders. The emergence of non-communicable diseases such as obesity, diabetes and coronary heart disease in adulthood as well as a decline in intelligence will have an impact on decreased school performance and career success in the future (Mulyana & Setyaningsih, 2020).

Complementary food for ASI (MP-ASI) is additional food given to babies after they are 6 months to 24 months old. In addition to complementary foods for ASI (MP-ASI), breast milk must also be given to babies, at least until the age of 24 months. MP-ASI is additionalfood for babies, so it must complement and fulfill the nutritional needs of babies (Agnes, 2018). Babies aged 6-12 months, babies are starting to be introduced to MP-ASI, failure to feed babies at this age will affect the baby's growth at a later stage (Mulyana & Setyaningsih, 2020).

Babies aged 6-12 months, babies are starting to be introduced to MP-ASI, failure to feed babies at this age will affect the baby's growth at a later stage (Mulyana & Setyaningsih, 2020). Providing MP-ASI greatly affects the nutritional status of babies. Providing MP-ASI includes a balanced menu for babies, especially aged 6-18 months. If the mother's behavior in giving MP-ASI is good, in terms of timeliness, type of food and amount of food, then the baby's nutrition will be met optimally. Mothers play a role in providing MP-ASI starting from determining, selecting, processing to providing daily nutritional menus for babies (Wandini et al., 2021).

Body weight is one of the indicators used to assess growth. Growth is influenced by many factors, including internal factors (genetics) and external factors (environment). One of the external (postnatal) factors that determine growth and development is nutrition (Mulyana & Setyaningsih, 2020). In the first year of life, children receive good nutrition, namely from birth to the first 6 months and their weight gain is 140-200 grams every week. The baby's weight becomes double the birth weight at the end of the first 6 months. Meanwhile, at the age of 6-12 months, weekly weight gain ranges from 85-400 grams. Body weight will increase by 3 times birth weight at the end of the first year (Mawaddah & Mursyidah, 2021).

Ambon banana (*Musa Paradisiaca)* iss a fruit that has a pretty good nutritional content, especially the content of vitamins and minerals. Vitamins that are mostly contained in bananas are vitamin Bcomplex (1.1 mg/100 g) while the mineral is Potassium (310 mg/100g) (Didit Anindita, Ir et al., 2016). The vitamins contained in bananas are vitamin C while the minerals are phosphorus and iron. Ambon banana is a fruit that contains lots of nutrients and has a distinctive taste and aroma, but ambon bananas are easily damaged, so they need to be processed into ingredients that are durable, easy to store, and use instantly. The way to make

Ambon bananas durable and long-lasting is to make Ambon banana flour by substituting it in various snacks such as *cookies* (Pratomo, 2013).

Ambon bananas contain 108 kcal/ 100 g of energy. The energy content of Ambon bananas is instant energy that is easily available in a short time, so it is useful in providing immediate calorie needs. The carbohydrate content in Ambon bananas is a moderate level of complex carbohydrates and is available gradually so that it can provide energy not too quickly. Ambon bananas with a calorie content of 108 kcal are very useful for increasing the baby's weight with good fiber which means that the baby will not get full quickly even if given cookies and the baby's metabolism will also be good (ITIS, 2018).

Purple sweet potato (*Ipomea batatas L*.) is a local food that is abundantly available, it is alsothe fourth highest source of non-rice carbohydrates after rice, corn and cassava. The distinctive sweet taste of purple sweet potatoes is also one of its advantages besides the relatively cheap price, making it affordable for the lower middle class (Zahra et al., 2019). Purple sweet potato contains nutrients in 100 g wet weight, namely carbohydrates (19.61%), protein (1.03%), fat (0.32%), ash content (0.01%), and water content (78 ,86%). The anthocyanin content found in purple sweet potato is 20 mg/100 g to 924 mg/100 g wet weight, so it has the potential as a source of antioxidants. This high carbohydrate can increase baby's weight (Setyadi & Ninsix, 2019).

Cookies is one type of biscuit that is very liked by everyone, especially toddlers, because it tastes sweet, also a little savory. Making process *cookies* it is very easy to add ingredients rich in local nutrients to the composition of the cake ingredients, the process of making pastries is done by mixing the composition of the dry ingredients, which are then mixed with a binder. Efforts to increase nutritional intake in under-five children are very inappropriate. *Cookies* also has an attractive shape, so it is widely used in efforts to improve nutrition (Agrifina et al., 2021). *Cookies* into high-energy and protein foods by substituting nutrient-rich ingredients. These ingredients include using Ambon banana flour and purple sweet potato flour. Formulation of MP-ASI using local ingredients can also educate the public to be more independent and able to utilize the food that is around them.

The results of the research by M Agrifina et al (2021) show the formulation *cookies* the most preferred by toddlers with the composition of mocaf flour, red bean, and chicken gizzard substitution based on parameters of aroma, color, taste, texture, and shape with an average score of 77.8-86.44%. The results of the orgonoleptic test showed that only *cookies* with the C1 formulation which is included in the preferred category, namely the interval of 78-100% of all parameters. Based on the aroma, color, taste, texture, and shape parameters obtained *cookies* with the C1 formulation of 88.8%, 81.11%, 88.8%, 82.2%, and 91.1% respectively (Agrifina et al., 2021).

Research by Afifah et al (2021) concluded that the formulation for making *cookies* the best that meets PMT quality requirements is F2, with a composition of 70% mangrove fruit flour and 30% soybean flour. The content of nutrients, mineral substances, and Hydrogen Cyanide (HNC) compounds and tannins in *cookies* has fulfilled the SPF quality requirements (Afifah et al., 2021).

In previous studies, there were no researchers using a combination of Ambon banana flour and purple sweet potato flour to increase baby weight, especially at the age of 6-9 months. This study uses three formulations. The formulation used is a ratio of Ambon banana flour compared to purple sweet potato flour with a ratio of Formula 1 = 60:20, Formulation 2 = 42.5:42.5, Formulation 3 = 25:60. The best result of the three formulations is F3. So in this study using Formulation 3.

Based on the description of the background above, the hypothesis that will be proposed in this study is manufacturing*cookies*based on the composition of ambon banana flour and purple sweet potato flour for toddlers aged 6-9 months on weight gain as assessed from the content of calories, protein, fat, and energy.

METHOD

Participant characteristics and research design

The design of this study uses*True Experimental Design*by design *Two Group Pretest and Posttest*. This research was conducted in the Working Area of the Ngesrep Public Health Center in Semarang City in February 2023. The inclusion criteria in this study were babies with no family history of obesity, babies aged 6-9 months in good health, babies who continued to consume breast milk and/or formula milk, babies not under the red line (BGM), babies not born to grande multipara no prenatal history of diabetes mellitus. Exclusion criteria in this study were babies who were sick for more than 3 days, and babies who did not consume during the intervention *Coobisang Cookies* ≥ 24 chips (≥20%) of the given amount.

Sampling procedures

Samples were selected using simple random sampling technique. At first the researchers identified all the characteristics of the population. Then the researcher determines the intended sample based on his considerations. The population in this study were infants aged 6-9 months in the Working Area of the Ngesrep 46 Public Health Center, but due to a history of obesity in the family (3 respondents), babies born to grande multipara (3 respondents) and the respondent's mother were not willing (4 respondents. Total sample a total of 36 respondents were divided into 2 groups, namely 18 respondents in the intervention group and 18 respondents in the comparison group. Research recommendations were obtained from the Poltekkes Kemenkes Semarang and permission was granted by the research location.

Sample size, power, and precision

The sample size used the Lameshow formula and obtained for each group of 18 respondents. Thetotal sample size is 18 intervention groups and 18 comparison groups. The variables seen here are the independent variables, namely the consumption of *Coobisang Cookies* and Milna Biscuits and the dependent variable, namely the increase in baby weight at the age of 6-9 months. The instrument in this study was the research subject characteristic sheet, form*Food Recall*, Organoleptic (Hedonic) Test form, Nutrisurvey sheet**.**

Data analysis

The univariate analysis carried out produced the mean/median values of each of the variables studied andthe distribution of the characteristics of the respondents. Bivariate analysis was used to determine the potential of Coobisang Cookies and Milna Biscuits in increasing the weight of infants aged 6-9 months. Found data that is not normally distributed so it uses a non-parametric test, namely Test *Mann Whitney* And *Repeated Measure ANOVA*. As a non-parametric analysis because the data is not normally distributed and does not require assumptions about the distribution of data. This analysis was carried out using a computer

program, statistical decision test using a significance degree of 95% and an error rate (α) = 5%. For the interpretation of the results if the value *p.* α value of 0.05.

RESULTS AND DISCUSSION

Characteristic of Respondents

The results showed that the respondents in this study, both in the intervention and comparison groups, were dominated by full term gestation, namely in the intervention group 88.9% and in the comparison group 100%. Characteristics of the mother's age variable that was most common was the age range of 20-30 years, the intervention group was 72.2% while in the comparison group it was 83.3%. The age characteristics of the infants in the largest intervention group were 8 months of age (44.4%) and the age range of infants in the largest comparison group was 9 months of age (33.3%). The characteristics of the parity variable in this study were dominated by multipara mothers, namely in the intervention group there were 12 respondents (66.7%) and in the comparison group there were 10 respondents (55.6%). The characteristics of the baby's sex variable were mostly dominated by female babies, namely in the intervention group by 11 respondents (61.1%) and in the comparison group by 10 respondents (55.6%). The variable characteristics of mothers' education were mostly mothers with high school graduates, namely in the intervention group there were 10 respondents (55.6%), while in the comparison group there were 9 respondents (50.0%). The variable characteristics of family income are dominated by income of Rp. >1,500,0000, namely in the intervention group there were 9 respondents (50.0%), while in the comparison group there were 11 respondents (61.1%). Variable characteristics The variable characteristics of mothers' education were mostly mothers with high school graduates, namely in the intervention group there were 10 respondents (55.6%), while in the comparison group there were 9 respondents (50.0%). The variable characteristics of family income are dominated by income of Rp. >1,500,0000, namely in the intervention group there were 9 respondents (50.0%), while in the comparison group there were 11 respondents (61.1%). Variable characteristics The variable characteristics of mothers' education were mostly mothers with high school graduates, namely in the intervention group there were 10 respondents (55.6%), while in the comparison group there were 9 respondents (50.0%). The variable characteristics of family income are dominated by income of Rp. >1,500,0000, namely in the intervention group there were 9 respondents (50.0%), while in the comparison group there were 11 respondents (61.1%). Variable characteristics Infant milk consumption was mostly dominated by breastfed babies, namely in the intervention group, 10 respondents (55.6%), while in the comparison group, 12 respondents(66.7%).

Variable statistical testconfoundingthe frequency of breastfeeding and nutrient intake divided into 2 times, namely the 7th day of intervention and the 14th day of intervention, namely using theMann Whitney, obtainedp-valuefrom all data> 0.05 and it can be concluded that there was no difference in the frequency of breastfeeding and nutrient intake in both the intervention group and the comparison group so that it did not have an effect on the treatment given.

Potencial of *Coobisang Cookies* and Milna Biscuits in Weight Gain for Infants Aged 6-9 Months

1. The Baby's Weight Increases Every Before and After On *Coobisang Cookies* and “Milna”

Biscuits

Tabel 1. Infant's Weight Gain Before and After The Group *Coobisang Cookies* and "Milna" Biscuits In The Working Area Of The Ngesrep Health Center, Semarang City Year 2023

Variabel	N	Mean±SD	Min	Max
***Cookies* Coobisang**	18			
Before Intervension		8050±792,056	6400	9500
After Intervension		8455±775,524	6900	9800
Biskuit "Milna"	18			
Before Intervension		8094±783,260	7000	9300
After Intervension		8427±903,461	7000	9900

Table 1 shows the baby's weight at*Coobisang Cookies* and the biscuit group "Milna before andafter the intervention. The average baby weight before the intervention in the "Milna" Biscuit group was higher than the group *Coobisang Cookies*, where in the "Milna" biscuit group an average of 8094 grams was obtained which was spread between 8094 ± 783.260 with the highest value being 7000 grams and the lowest value being 7000 grams. In groups *CoobisangCookies* obtained an average of 8050 grams spread between 8050 ± 792.056 with the highest value of 9500 grams and the lowest value of 6400 grams.

The average baby weight after the intervention in the group *Coobisang Cookies* higher than the"Milna" group, obtained an average of 8455 grams spread between 8455 ± 775.254 with the highest value of 9800 and the lowest value of 6900 grams. In the "Milna" Biscuit group, an average of 8427 grams was obtained, spread between 8427 ± 903.461 with the highest value being 9900 grams and the lowest value being 9300 grams. Graphically it can be seen in Figure 1.

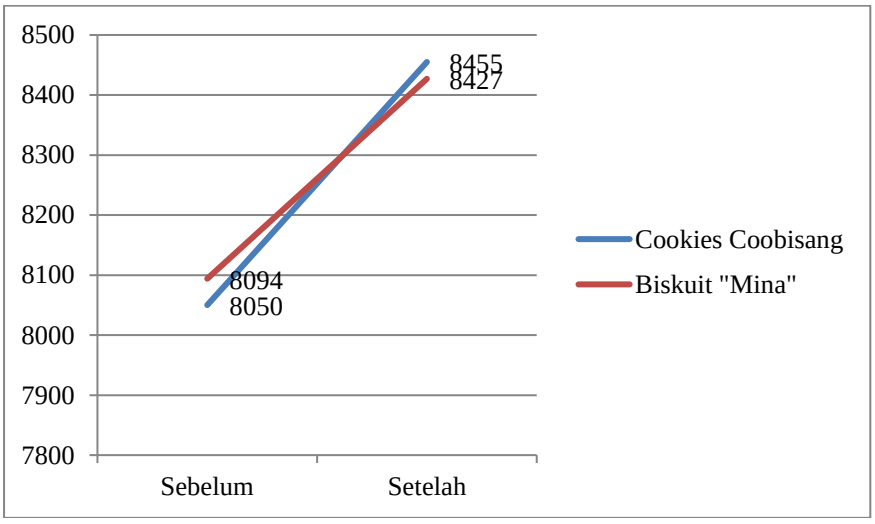

Figure 1. Graph of Baby's Weight Age 6-9 Months Before and After Group *Coobisang Cookies*and "Milna" Biscuits

Data normality test results using *Shapiro-wilk*, data results were obtained in all groups both groups *Coobisang Cookies*and the "Milna" Biscuit group, which is normally distributed (> 0.05). Because the data is normally distributed, the next testuses an independent test *sample t test*.

Tabel 2. Differences in Infant Weight Gain Before and After Intervention Group*Coobisang Cookies*and the "Milna" Biscuit Group

Group	Min-Max	Mean±SD	*p Value*
Cookies Coobisang			0,314[a]
Before	6400-9500	8050±792,056	
After	6900-9800	8455±775,254	
Biskuit Milna			0,315[a]
Before	7000-9300	8094±783,260	
After	7000-9900	8427±903,461	

[a]: *Independen sampel t-test*

Table 2. shows the results of the difference in the increase in the baby's weight before and after being given the intervention using the test*independent sample t*-test. In groups*Coobisang Cookies*the result was 0.314 (> 0.05) and in the "Milna" biscuit group the results were obtained*p- value*of 0.315 (<0.05). These results indicate that there is no significant difference in the baby's weight difference between before and after the intervention.

Feeding patterns greatly affect the growth and weight of the baby. Breast milk alone cannot meet all of their energy and nutritional needs, because the fulfillment of baby nutrition frombreast milk is only 65-80%. The pattern of feeding infants is closely related to the baby's weight, because this pattern provides an overview of the frequency of feeding, the type orform of food and the amount of doses given (Anggarini et al., 2020). There were no significant differences in the intervention group or the comparison group at the time beforeand after the intervention, which could be affected by the frequency of basic MP-ASI that didnot meet the nutritional requirements.

Lack of variety of basic MP-ASI foods given to babies, because mothers only provide foods that babies like without paying attention to nutritional elements. In addition, thecontent between *Coobisang Cookies* and equally good "Milna" Biscuits. When viewed from the nutritional value of calories in *Coobisang Cookies* tends to be higher, namely 141 kcal, while the "Milna" biscuit is 90 kcal. This is the reason why the baby's weight gain doesn't increase too much because the content is just as good. But the content of *Coobisang Cookies* much higher than the calorie content of the "Milna" biscuit.

The results of this study are in line with Michaelsen'set al. namely the absence of infant weight gain caused by the inadequate quality of complementary feeding. Giving MP-ASI can affect the growth, development, and short-term and long-term health of babies. Therefore it is important to examine optimal complementary feeding during the 6-24 month period, both in terms of form, frequency and amount (Michaelsen, K.F., Grummer-Strawn, L., Begin, 2017).

The research was conducted by Narendra regarding the pattern of giving MP-ASI which is suitable as a form or model of giving complementary foods for ASI (MP-ASI) according to

the stages of infant age, type of food, food texture and schedule for complementary feeding of ASI (Narendra, 2015). This is in line with the research by Ririn Pajriyani and Kadar Kuswandi that complementary feeding should be gradual and varied, starting with one type of taste each time introducing a new type of food, starting in the form of thick porridge, fruit juice, fresh fruit, mashed food, soft food and finally solid food (Kuswandi, 2013).

2. Baby's Weight Gain at Session Time Every Week *Coobisang Cookies* And "Milna" Biscuits

Tabel 3. in Baby's Weight Based on Each Time Session *Coobisang Cookies* and"Milna" Biscuits in the Working Area of the Ngesrep Health Center, Semarang City Year 2023

Variabel	N	Mean±SD	Min	Max
***Cookies* Coobisang**	18			
Week 1		8088±801,388	6500	9600
Week 2		8161±795,679	6600	9600
Week 3		8300±781,401	6800	9700
Week 4		8455±775,524	6900	9800
Biskuit "Milna"	18			
Week 1		8127±778,993	7000	9300
Week 2		8250±829,068	7100	9500
Week 3		8361±877,254	7100	9700
Week 4		8422±896,106	7000	9900

Table 3. shows the increase in baby weight in *Coobisang Cookie s*every week there is a change in the group *Coobisang Cookies*namely from 8088 grams it increased to 8455 grams, and in the"Milna" Biscuit group on the crew 8127 it increased to 8422 grams. Graph of the average increase in baby weight in the group*Coobisang Cookies*and "Milna" Biscuits can be seen in Figure 3.

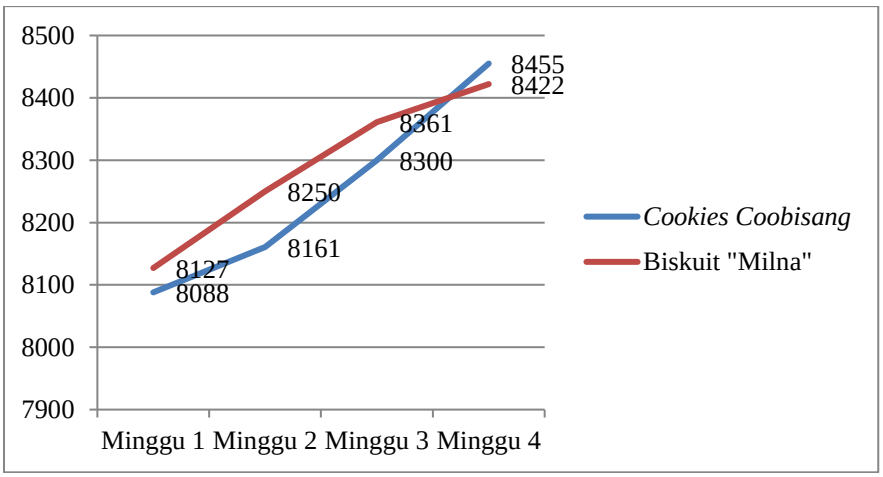

Figure 3. Graph of Increase in Average Baby Weight in Groups *Coobisang Cookies* and "Milna" Biscuits

Table 3. and Figure 3. shows the increase in baby weight as seen from the indicators of weighing the baby before and after the intervention was given to the intervention group and the comparison group. The average result was that the baby's weight in the first week before treatment in the comparison group was higher with a difference in weight of 39 grams from the intervention group.

In the second week, the average increase in the baby's weight was still high for the comparison group, which was a difference of 89 grams from the intervention group. The average results in the third week for the comparison group were also still high, namely the difference was 61 grams higher than the intervention group. In the fourth week, the average weight of the babies was higher in the intervention group, which was 33 grams compared to the comparisongroup.

Data normality test results using *Shapiro-wilk*, the results of the data for the baby's weight variablemeasured at the time session found that all data were normally distributed (> 0.05). The results of the normality test for differences in infant weight based on the time session obtained data in the intervention group normally distributed (>0.05), while the difference in infant weight in the comparison group was not normally distributed (<0.05).

Tabel 4. Results of Difference in Baby's Weight Every Week in the Intervention Group and Comparison

Group	Baby's Weight			
	Week Difference 1-2 Mean±SD	Week Difference 2-3 Mean±SD	Week Difference 3-4 Mean±SD	*p Value*
Intervension	72±107,406	138±84,984	155±119,913	0,042[a]
Comparison	122±255,655	111±190,630	61±103,690	0,725[b]
p-Value	0,252[c]	0,263[c]	0,016[c]	

[a]: *Friedman*

[b]: *Repeated Measure Anova*

[c:] *Mann Whitney*

The difference normality test in the intervention group was not normally distributed (> 0.05). Next test using Friedman showing *p-value* 0.042 (<0.05) means that there was a statistically significant increase in the intervention group. The results of the normality test on the difference in baby weight are normally distributed (<0.05). Next test usingRepeated Measures ANOVA showing *p-value* 0.725 (> 0.05) means that there is no statistically significantincrease.

Different test using Mann Whitney in the 1st and 2nd week showsp-value0.252 means that statistically there is no significant difference in weight difference, as well as the 2nd and 3rd weeks showing resultsp-value0.263 also means that there is no significant difference in weight difference. Weeks 3 and 4 show resultsp-value0.016 means that statistically there is a significant difference in weight gain in the two groups.

Statistic test Friedman the intervention group got the results *p-value* 0.042 <0.05, which means there was a significant increase in the baby's weight in the intervention group. The comparison group was tested using a test Repeated Measure ANOVA got results *p-value* of

0.725> 0.05 means that there is no statistically significant increase in the baby's weight in the comparison group. Different test using Mann Whitney in the difference between the 1st and 2nd week is obtainedp-valueof 0.2529> 0.05.
Statistically, it means that there is no significant difference in body weight. The 2nd and 3rd week the results were obtained *p-value* 0.263> 0.05 which means there is no significant difference in body weight. Weeks 3 and 4 the results were obtained *p-value* 0.016<0.05 means that there is a statistically significant difference in weight difference.

Coobisang Cookies is an MP-ASI snack made from Ambon banana and purple sweet potato which plays a role in increasing baby's weight. Ambon bananas and purple sweet potatoes are rich in nutrients needed by babies, especially in babies aged 6-9 months, such as carbohydrates, fiber, protein, and fat. *Coobisang Cookies* in addition to being rich in nutrients, complementary foods are also safe for consumption because they do not use preservatives.
The materials used are also easy to find and also economical. *Coobisang Cookies* in terms of material and content, it is safe for consumption by babies aged 6-9 months. The nutritional content is sufficient to meet the needs needed for babies aged 6-9 months, but further checksneed to be carried out regarding heavy metals such as Arsenic, Mercury and Lead.

The results of this test showed that there was no significant difference between the intervention group and the comparison group *Coobisang Cookies* or "Milna" biscuits, both of which are high in carbohydrates because they are made from the same flour are thought to be the cause of the not too different results from the average increase in body weight before and after being given the intervention. The intervention was given over a period of 1 month. There were no significant differences in the intervention group or the comparison group at the time before and after the intervention, which could be affected by the frequency of basic MP-ASI that did not meet the nutritional requirements.

Lack of variety of basic MP-ASI foods given to babies, because mothers only provide foods that babies like without paying attention to nutritional elements. In addition, the content betweenCoobisang Cookiesand equally good "Milna" Biscuits. When viewed from the nutritional value of calories inCoobisang Cookiestends to be higher, namely 141 kcal, while the "Milna" biscuit is 90 kcal. This is the reason why the baby's weight gain doesn't increase too much because the content is just as good. But the content of Coobisang Cookiesmuch higher than the calorie content of the "Milna" biscuit.

Research conducted by Irvani A. Ibrahim, Syafaini, and Nur Muslimah found the results of giving purple sweet potato biscuits on body weight in the intervention group after statistical tests were carried outpaired t-testmarksig (2-tailed) p=0.000<0.05. So there is an effect of giving purple sweet potato biscuits on body weight (Ibrahim et al., 2018). Research by Lailiyah Imro'atul Mufidah et al obtained PMT results for toddlers made from PMT biscuits toddlers and purple sweet potatoes which are processed by steaming. PMT modification at the best treatment level, namely P3 (40% purple sweet potato and 60% PMT biscuits) can be used as an alternative supplementary food for toddlers because it provides color, aroma, taste and texture that can be accepted by toddlers (Mufidah, Imro'atul Lailiyah., 2022).

This study is in line with Udoh and Amodu in Negeria where children who did not receive the appropriate frequency of MP-ASI were more likely to have stunted growth than those

who received the appropriate frequency of MP-ASI (OR 1.57; 95% CI 1.53-4, 03) (Udoh, E. E., Amodu, 2016). According to Corsi*et al*. The low amount of food diversity also affects other weight problems, namely weight loss which can lead to weight loss*stunting* (Corsi D. J., Mejia- Guevara, I., Subramanian, 2016). According to Abeshu at el. the amount of food per day depends on the energy requirements of each age, the capacity of the child's stomach, and the energy density of food (kilocalories per gram) (Abeshu, M. A., Lelisa, A., Geleta, 2016).

LIMITATION OF THE STUDY

The researcher realizes that there are limitations in this study, including the first one this research did *food recalls*24 hours was only carried out 2 times, namely the 7th day of intervention and the 14th day of intervention. It is better if the next research is carried out every week so that the intake of nutrients by the baby can be calculated accurately. Second, researchers have not been able to test heavy metals (Arsenic, Mercury and Lead) on*Coobisang Cookies*a combination of purple sweet potato flour and Ambon banana.

CONCLUSIONS AND SUGGESTIONS

Statistically there was a significant effect in the intervention group, but in the comparison group there was no statistically significant effect. When viewed from the nutritional value of calories in*Coobisang Cookies*tends to be higher, namely 141 kcal, while the "Milna" biscuit is 90 kcal. This is one of the factors for weight gain in the group *Coobisang Cookies*more significant.
Giving*Coobisang Cookies*The combination of purple sweet potato flour and Ambon banana is expected to be used as a complementary food supplement for ASI to increase the weight of babies aged 6-9 months so that they can meet the daily nutritional needs of babies. Giving*Coobisang Cookies*can be an alternative to being based on the difference in weight gain for babies 6-9 months, besides that the basic ingredients are easy to get, the prices are also economical.

ETHICAL CONSIDERATIONS

Funding

The authors did not receive any financial support from any institution or organization for the submitted article. There was no funding was received for the preparation until completion of this manuscript.

Conflict of Interest

No conflict of interest that is directly or indirectly related to the current article was found.

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