

IMPROVING MOTHER'S SKILLS IN THE TECHNOLOGY OF MAKING MAIN FOODS AND HEALTHY SNACKS AND THE NUTRITIONAL STATUS OF PRE- SCHOOL CHILDREN

by Widia Shofa Ilmiah Fifi Maulidatul Azizah

Submission date: 25-Aug-2022 11:54AM (UTC+0700)

Submission ID: 1886751111

File name: IMPROVING_MOTHER_WIDIA_FIFIN_1.docx (177.49K)

Word count: 4306

Character count: 23675



IMPROVING MOTHER'S SKILLS IN THE TECHNOLOGY OF MAKING MAIN FOODS AND HEALTHY SNACKS AND THE NUTRITIONAL STATUS OF PRE-SCHOOL CHILDREN

Widia Shofa Ilmiah¹, Fifin Maulidatul Azizah²

¹Institut Teknologi, Sains, dan Kesehatan RS dr. Soepraoen Kesdam V/ Brw, Malang, Indonesia

²Stikes Hafshawaty Pesantren Zainul Hasan, Probolinggo, Indonesia

ARTICLE INFORMATION

Received: Month, Date, Year
 Revised: Month, Date, Year
 Available online: Month, Date, Year

KEYWORDS

Technology, Main food, Healthy snacks,
 Nutritional status, Mother's skill, Preschool

CORRESPONDENCE

E-mail: widiahofailmiah@itsk-soepraoen.ac.id;
 widiailmiah86@gmail.com
 No. Tlp: +6281333765541

ABSTRACT

Indonesia's child nutrition problem is becoming a national health problem. Food technology is expected to be a solution. Five-year-olds' nutritional status data was thin and very thin in 2013 (12.1%), in 2018 (10.2%). Preliminary study results in Al Hidayah Kindergarten were known from 5 mothers showing 4 people (80%) do not know how to process, serve the main food and make healthy snacks for their children. The aim is to analyze improving mother's skills in the technology of making main foods and healthy snacks and the nutritional status of pre-school children. Methods were preexperimental research design type one group pre-posttest design. The populations were all mothers and children in Sumbersecang Kindergarten were 42 people, the samples were 16 people, simple random sampling, instruments using questionnaires, checklists, counseling sheets, weight scales, analysis using paired t-test with SPSS v.16. The results that 68.8% of mothers age 21-40 years, 43.8% educated in elementary school, 81.3% not employed, 56.3% have an income of less than IDR.1,000,000,-, 50% of Madura tribe, 50% have a good level of knowledge, 31.3% of mother skills increase after the intervention, 31.3% of children are obese, their weight gain after intervention decreases by 25% and does not experience weight loss as much as 6.3%. Statistical test ($p\text{-value} = 0.000 < \alpha 0.05$). The technology of making main foods and healthy snacks can improve the mother's skills and nutritional status of pre-school children and level of education, socioeconomic, level of knowledge become supporting factors.

INTRODUCTION

The Pre-school period is the most important phase that can affect the growth and development of children in adulthood including reproductive health because the diet behavior chosen by children and children begin to learn the likes and dislikes and tastes, and the smell of food and selective in choosing food (Putri & Lasri, 2016). Pre-school children are one of the groups that are prone to nutrition because at this time children are often sick (Nekitsing *et al.*, 2018).

Children's nutrition problems in pre-school age and school-age are still a problem in Indonesia and various countries around the world both in developed and developing countries. Children's nutrition problems in developed countries such as Canada and the United States are obesity problems and children's eating menu choices in the form of fruits, vegetables, sweet foods or contain high sugar (Lehto *et al.*, 2016). While the problem of child nutrition in developing countries such as Indonesia is the problem of malnutrition, obesity, and children's eating choices either by children or parents (Putri & Lasri, 2016).

Data on the nutritional status of five-year-olds (toddlers) in Indonesia in 2019 is known that the prevalence of stunting has improved from 37.2% (in 2013) to 29% (in 2015), 27.5% (in 2016), and rose again to 29.6% (in 2017) and then 30.8% (in 2018). While the prevalence of skinny (wasting) from 12.1% (in 2013) dropped to 10.2% (in 2018) (Ministry of Health, 2018). Nutrition problems not only occur in rural areas with a stunting percentage of 42.1% but also occur in urban areas with a percentage of 32.5% (Aridiyah *et al.*, 2015).

Nutritional Status data with BB/ U (weight/ age) index in East Java in 2016 namely very malnutrition (3.36%), malnutrition (13.94%), good nutrition (80.68%), obesity (2.02%), and data in 2017 began to experience improved nutrition with very malnutrition rates dropping to (2.9%), malnutrition (12.2%), good nutrition increased to (83.2%) and obesity (2.2%) (Ministry of Health RI, 2019).

Data of Probolinggo District Health Office in 2016 from the weighing of 79,202 toddlers reported by puskesmas in 2016 is known that there are 1,311 toddlers Under the Red Line (BGM) (1.65%). While the data of Nutritional Status Monitoring (PSG) on the Prevalence of Malnutrition (BB/ U) in 2016 (1.65%), an increase compared to 2015 (1.59%). While the prevalence of malnutrition in 2016 (9.44%), an increase compared to 2015 (8.65%). Some of the data on the nutritional status of toddlers is the number of nutritional status in children aged five years only who are pre-school age children (Dinkes Kab. Probolinggo, 2017).

Preliminary study results at Al Hidayah Kindergarten (TK) Sumbersecang probolinggo known from 5 mothers of pre-school children showed that as many as 4 people (80%) said they do not yet know how to process and serve main foods and healthy snacks that have nutritional value for their children. Of the 4 mothers who do not know how to process and serve food, 2 people (40%) have malnutrition status and 1 person (20%) has more nutritional status, and 1 other person (20%) has normal nutrition according to age. While 1 mother who knows about how to process and serve main meals and snacks in the know the nutritional status of her child is normal (20%).

The results of the study (Pavilianingtyas, 2017) said that factors cause the nutritional status of obese children i.e. agent factors, *host*, *environmental*. Agent factors include infectious diseases suffered; *Host* factors include gender, child health conditions, food intake; *environmental* factors include the socioeconomic status of parents, education level, parental knowledge level, occupation, parenting patterns, including skills in making children's food, peers, tribes and environments (such as the growing number of convenience stores selling fast food and foods with preservatives and restaurants). While other causes that cause the nutritional status of children are lacking or obese according to research (Osera *et al.*, 2012) namely the level of maternal education, selection of meals by mothers including family and child diet.

Healthy, good, and correct eating behavior is a balanced nutritional eating behavior consisting of elements of carbohydrates, fats, proteins, vitamins, and minerals. To maintain the child's health, the mother is expected to be able to make nutritious food according to the needs of the child's body and physique. So the role of the mother is very large in determining the type of food consumed by children, especially in pre-school age. Therefore, it takes the knowledge and skills of the mother in processing food (Putri & Lasri, 2016).

The mother's skills in making children's food that is not goodwill have an impact on the intake of food consumed by the child to be unhealthy and lack of nutritional value according to the child's caloric needs that result in the nutritional status of the pre-school child do not match his age or height. The nutritional status of pre-school children who are lacking, severely undernourished, and obese can affect their growth and development in later adulthood, affecting their reproductive system and learning achievements achieved by the child (Eliassen, 2011).

The existence of food technology in the manufacture of main foods and healthy snacks is increasing and has innovations are expected to overcome the problem of maternal skills in processing and serving foods that are favored by children and varied and have nutritional value to improve the nutritional status of children. This study aims to analyze the improvement of maternal skills in the technology of making main foods and healthy snacks as well as the nutritional status of pre-school children.

METHOD

This study uses an *experimental design* with a *pre-experimental type one group pretest-posttest design*. The research population is all mothers and pre-school children in Al Hidayah Kindergarten Sumbersecang numbered 42 people with the number of samples this study as many as 16 people. The criteria for inclusion of research are mothers and pre-school children who are willing to be examined. The criteria for research exclusion is that the mother is not at the research site when the study took place, pre-school children have a history of genetic diseases related to the digestive system and metabolism (Diabetes Mellitus, Dyspepsia). This research sampling technique is Simple Random *Sampling*. This research instrument uses questionnaires, checklist sheets, weight scales. Research data collection techniques are conducted on the 1st day and the 30th day.

There is the 1st day, researchers explain the purpose and procedure of the study, then spread the informed *consent* sheet to respondents. Furthermore, disseminate questionnaire demographic data and knowledge

level and explain how to fill out questionnaires and make observations using *checklists* about the skills of serving main meals and healthy snacks as well as measuring the nutritional status of children by weighing weight and asking the age of the child to the mother. Furthermore, the researcher together with the team conducted counseling and demonstration of technology of making main foods and healthy snacks and encouraged mothers to practice them at home and provide food menus that have been made to their children. Meanwhile, in the 30th, researchers measured the level of maternal knowledge after being given counseling and demonstrations, as well as observing the mother's skills in serving main meals and healthy snacks, then measured nutritional status by weighing the child's weight after practice and checking the child's age.

Analysis of this research data using *paired t-test* statistics with the help of SPSS V. 16. Ethics review has been conducted by researchers before conducting research. The ethics review was conducted at STIKes Hafshawaty Pesantren Zainul Hasan with No. SK: KEPK/065/STIKes-PZH/V/2019.

RESULT

The results of this study were conducted for 1 month with the results of the study that 68.8% of mothers aged between 21-40 years (mean 36.8 years), 43.8% elementary school educated, 81.3% are housewives, 56.2% of family income between 500,000-1,000,000 per month, 50% of mothers are from Madura and Javanese tribes and have good knowledge (50%) and (37.5%) have low knowledge of balanced nutrition food for children, maternal skills in making main meals and healthy snacks before intervention were less (31.3%) and good enough (68.7%). While maternal skills after intervention improved which is quite good (62.5%) and good (37.5%). The result of the child's nutritional status level did not change, but there was an increase in the child's weight during 1 month of intervention that is (56.3%) (mean 2.31) (Table 1).

Cross-tabulation results on improving maternal skills in the technology of making main foods and healthy snacks in mothers who previously had fewer skills to be good enough (31.3%) and the results of statistical tests *Paired t-test* (p= 0.00) (Table 2) and the level of nutritional status of children is normal (62.5%) with the results of statistical test *Paired t-test* (p= 0.00) (Table 3).

1

Table 1. Characteristics of Respondent

Characteristics (n=16)	n (%)
Age (years)	
<20	1 (6.3)
21-40	11 (68.8)
41-60	3 (18.8)
>60	1 (6.3)
Mean	36.8
Level of Education	
Elementary school	7 (43.8)
Junior high school	5 (31.3)
Senior high school	4 (25.0)
Collage	0 (0)
Employment	
Housewife	13 (81.3)
Labor	0 (0)
Farmer	1 (6.3)
Entrepreneur	1 (6.3)
Private job	1 (6.3)
Civil servants	0 (0.0)
Household Income (per month)	
IDR <500,000	5 (31.3)
IDR 500,000-1,000,000	9 (56.2)
IDR >1,000,000	2 (12.5)
Ethnic	

3

Madura tribe	8 (50.0)
Java tribe	8 (50.0)
Level of knowledge	
Very low	0 (0.0)
Low	6 (37.5)
Middle	8 (50.0)
Good	2 (12.5)
The skill of Mother before intervention	
Low competence	5 (31.3)
Middle competence	11 (68.7)
Good competence	0 (0.0)
The skill of Mother after intervention	
Low competence	0 (0.0)
Middle competence	10 (62.5)
Good competence	6 (37.5)
Level 4 Nutrition of preschool before intervention	
Very thin	0 (0.0)
Thin	1 (6.3)
Normal	10 (62.5)
Fat	5 (31.3)
Obesity	0 (0.0)
Level 4 Nutrition of preschool after intervention	
Very thin	0 (0.0)
Thin	1 (6.3)
Normal	10 (62.5)
Fat	5 (31.3)
Obesity	0 (0.0)
Improvement of the weight of preschool after intervention	
Loss	4 (25.0)
Stagnant	3 (18.8)
Increase	9 (56.3)
Mean	2.31

Table 2. Cross Tabulation of Improving Mother's Skills in The Technology of Making Main Foods and Healthy Snacks

Skill before intervention	Skill after intervention						Total	
	Low competence		Middle competence		Good competence		n	%
	n	%	n	%	n	%		
Low competence	0	0.0	5	31.3	0	0.0	5	31.3
Middle competence	0	0.0	5	31.3	6	37.5	11	68.8
Good competence	0	0.0	0	0.0	0	0.0	0	0.0
Sum	0	0.0	10	62.6	6	37.5	16	100

p value = 0.000 < α 0.05

Table 3. Cross Tabulation of Improving the Nutritional Status of Pre-School Children

Level Nutrition before intervention	Level Nutrition after intervention										Total	
	Very thin		Thin		Normal		Fat		Obesity		n	%
	n	%	n	%	n	%	n	%	n	%	n	%
Very thin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thin	0	0.0	1	6.3	0	0.0	0	0.0	0	0.0	1	6.3
Normal	0	0.0	0	0.0	10	62.5	0	0.0	0	0.0	10	62.5
Fat	0	0.0	0	0.0	0	0.0	5	31.3	0	0.0	5	31.3
Obesity	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sum	0	0.0	1	6.3	10	62.5	5	31.3	0	0.0	16	100

p value = 0.000 < α 0.05

1 DISCUSSION

The results of this study showed that there is an improvement in the mother's skills in making the main food and healthy snacks and there is an increase in the child's weight as an indicator of improved nutritional status of the child.

Main healthy food is a staple dish consisting of a complete menu eaten in the morning, day and night. The main characteristic of healthy food according to that has a balanced nutritional value with the elements of carbohydrates, fats, proteins, vitamins, and minerals, does not contain many flavorings and harmful dyes (Nurhayati *et al.*, 2012). While healthy snacks are snacks that contain low calories, high in protein and vitamins or minerals. Characteristics of healthy snacks do not contain any flavorings, harmful dyes (Amar, 2014).

The technology of making the main food and healthy snacks is a strategy that is carried out by converting raw materials into more nutritional value, having (Center for Human Resources Education health, 2017) namely extending the time and number of available foodstuffs, facilitating storage and distribution, increasing economic added value in the form of benefits and social added value, obtaining more attractive products, such as appearance, taste, and other physical properties. Simple food technology that can be done by mothers is about how mothers can process and serve food with balanced nutrition that is interesting, varied, and preferred by the child and food can survive for several hours or not quickly stale.

Maternal skills are maternal proficiency in the manufacture of main meals and healthy snacks for children, including less-skilled, quite skilled, and skilled. Factors that affect the mother's skills, including age, level of education, level of knowledge, experience, maternal attitude, motivation, skills or skills serving food, environment (Scaglioni *et al.*, 2018) and (Osera *et al.*, 2012). In addition, factors that affect it are the existence of tools that facilitate mothers in regulating the child's diet, for example using the *Fuzzy Sugeno Inference System* method or manual methods that are easy to practice in calculating the nutritional needs of children according to age (Wachdani *et al.*, 2012).

Based on the results of the research researchers that factors of maternal skills in food technology and nutritional status of pre-school children are indirectly influenced by various factors, namely maternal age, education level, occupation, income, ethnicity, and the level of maternal knowledge about nutrition.

The results of the researcher's study (table 1) showed that the average maternal age is 36.8 years. This indicates the age of the mother is in the early adult stages. In this range, mothers have enough experience in various things including cooking, serving food, or regulating the child's diet.

The results of the researchers' research are supported by the study that greatly influences her cooking skills, attitudes, and quality of diet that will be given to their child which will further influence the selection of food by the child. Likewise the results of the study (Eliassen, 2011) that what mothers eat is an example of what a child will eat. Motherhood becomes very important as the primary caregiver of the child. Young adult mothers tend to behave at will including the way of feeding the child. It is also associated with maternal education and previous maternal knowledge on how to provide healthy food and snacks for her pre-school children.

Furthermore, the results of the researchers' study on the level of education as much as 43.8% of mothers have an elementary or low education with an income of less than 1,000,000 per month (56.2%). The level of education greatly affects the mother's skills in choosing a meal menu for the child either a main meal or a healthy snack. The lower the level of maternal education, the selection of food menus for children tends to be unhealthy, has low nutritional value and filling origin. This is supported by the results of research (Gacek, 2019) and education. This is because mothers who have a low level of education are associated with less knowledge about the child's balanced nutrition or nutrition. Mothers tend to obey the child's will in choosing food according to the child's taste, without informing the nutritional value of the child either main meals or healthy snacks. Furthermore, the opinion (Scaglioni *et al.*, 2011) that mother is the most powerful control and an example for her child compared to environmental factors and share experiences with children about healthy food.

The study child's eating behavior, among others, the level of education of the parent or mother, the socioeconomic status of the mother or family factors of the father's attention to the child as well as parenting patterns and family eating behaviors. The results of this study showed that mothers with low levels of education do not understand the nutritional needs of children including their growth and development needs. The mother's ignorance about the importance of balanced nutrition for her child is presented in the main menu and snacks (snacks) because the access of maternal information to information about healthy nutrition is still low.

According to (Russell *et al.*, 2014) that mothers who have low socioeconomic status or who have incomes below per capita have motive choose food based on their price so that the nutrients present in the food are ruled out and will be a factor that affects the quality of the child's diet.

Based on the results of the research researchers on the level of maternal knowledge about child nutrition that is 50% of mothers have a fairly good level of knowledge and 37.5% have low knowledge. These results show that almost some mothers still do not understand healthy nutrition for their child, its benefits as well as the short-term and long-term impacts on their health and children's learning achievements. Furthermore, the level of knowledge of the mother will affect the perception and attitude of the mother about the child's healthy food. It is as stated by the mother's poor perception of healthy food will affect the child's chosen food. The child will imitate what is the habit of the mother or parents.

Furthermore, the results of this study were known to mothers after being given interventions have improved skills in the manufacture of main foods and healthy snacks (31.3%) ($p=0.000$), normal child nutritional status (62.5%) and child weight increased (mean 2.31). Cooking skills interventions can have a positive impact on knowledge of food mainly developing confidence in the cooking skills of fruit, vegetables in groups with low socioeconomic status. The success of the mother in skilled cooking will affect the main types of foods and snacks given to her child and can affect their growth and development. The measure of growth, in this case, is the weight loss to the age of the child that can form the nutritional status of the child (Garcia *et al.*, 2016).

Children who have nutritional status are obese and obese as well as thin children will be able to influence their ability to think including the academic achievements of children. Obese children tend to choose foods high in calories and fat and low in fiber. Children in Indonesia as many as 86.2% of toddlers in Indonesia do not like to consume vegetables and fruit consumption as much as 35.7%. While the child is thin due to the consumption of foods low in protein and calories or fat and the amount of intake is less (Hermina & Prihatini S, 2016).

Children who have the above nutritional problems caused by lack of nutrients in the consumption needed by the brain include balanced elements of carbohydrates, proteins, fats, vitamins, and minerals. In addition, other impacts will affect the health of reproduction in adolescence and later adulthood. This is following the results (Nekitsing *et al.*, 2018) that the child's development is influenced by the intake of nutrients consumed that will later affect the health status in his adulthood including his reproductive health.

Therefore, it is important for parents, especially mothers as the people closest to the child to pay attention to the child's healthy food needs both main meals and healthy snacks, and prevent children from skipping their mealtime, especially in pre-school age children that can affect the child's nutrition status (Mary *et al.*, 2019).

CONCLUSIONS

Providing training or demonstration is very effective in improving the mother's skills in the technology of making main foods and healthy snacks and can improve the nutritional status of children with indicators of increasing the child's weight according to their age. However, this study has the weakness of the absence of a control group as a comparison and the need for further research by adding a number of respondents, duration of study and methods of calculating the child's diet by non-manual methods or using applications that are easy to practice by the mother.

REFERENCES

- Amar, rer. nat. A. (2014). Dasar-dasar Teknologi Pangan. In *Institut Teknologi Indonesia*. Repository Universitas Teknologi Pangan. <http://repository.ut.ac.id/4561/1/PANG4212-M1.pdf>.
- Aparício, G., Cunha, M., Duarte, J., Pereira, A., Bonito, J., & Albuquerque, C. (2013). Nutritional status in preschool children: Current trends of mother's body perception and concerns. *Atencion Primaria*, 45(SUPPL. 2), 194–200. [https://doi.org/10.1016/S0212-6567\(13\)70022-2](https://doi.org/10.1016/S0212-6567(13)70022-2)
- Aridiyah, F. O., Rohmawati, N., & Ririanty, M. (2015). The Factors Affecting Stunting on Toddlers in Rural and Urban Areas. *E-Jurnal Pustaka Kesehatan*, 3(1), 163–170.
- Damen, F. W. M., Luning, P. A., Fogliano, V., & Steenbekkers, B. L. P. A. (2019). What influences mothers' snack choices for their children aged 2–7? *Food Quality and Preference*, 74(December 2018), 10–20. <https://doi.org/10.1016/j.foodqual.2018.12.012>
- Dinkes Kab. Probolinggo. (2017). *Profil Kesehatan Kabupaten Probolinggo Tahun 2016* (Issue Juli 2017).
- Eliassen, E. K. (2011). The Impact of Teachers and Families on Young Children ' s Eating Behaviors. In *The Impact of Teachers and Families on Young Children ' s Eating Behaviors* (Issue March, pp. 84–89). Concordia University. http://suskinder.suscooks.eu/user_uploads/Module5/Be_Impact_kindergarten_teacher_families_young_children_behaviour.pdf
- Gacek, M. (2019). Selected determinants of eating behaviours among preschool children from the Kraków environment. *Roczniki Panstwowe Zakladu Higieny*, 70(2), 137–145. <http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L628415078>
- Garcia, A. L., Reardon, R., Mcdonald, M., Vargas-garcia, E. J., Reardon, R., & Mcdonald, M. (2016). Community Interventions to Improve Cooking Skills and Their Effects on Confidence and Eating Behaviour. *Current Nutrition Reports*, 5, 315–322. <https://doi.org/10.1007/s13668-016-0185-3>
- Hermi, & S, P. (2016). Gambaran Konsumsi Sayur dan Buah Penduduk Indonesia dalam Konteks Gizi Seimbang: Analisis Lanjut Survei Konsumsi Makanan Individu (SKMI) 2014. *Buletin Penelitian Kesehatan*, 44(3), 205–218. <https://doi.org/10.22435/bpk.v44i3.5505.205-218>
- Kemendes RI. (2018). Situasi Balita Pendek (Stunting) di Indonesia. In *Kementerian Kesehatan RI* (Issue Semester I).
- Kemendes RI. (2019). Profil Kesehatan Indonesia 2018. In *Kementerian Kesehatan RI*. <https://doi.org/10.1136/jcp.40.5.591-b>
- Lavelle, F., Spence, M., Hollywood, L., MCGowan, L., Surgeon, D., McCloat, A., Mooney, E., Caraher, M., Raats, M., & Dean, M. (2016). Learning cooking skills at different ages : a cross-sectional study.

International Journal of Behavioral Nutrition and Physical Activity, 13(119), 1–11.
<https://doi.org/10.1186/s12966-016-0446-y>

- Lehto, R., Roos, G., Roos, E., Ray, C., & Suvi, M. (2016). In fl uencing factors of children ’ s fruit , vegetable and sugar-enriched food intake in a Finnish preschool setting e Preschool personnel’s perceptions. *Elsevier*, 103, 72–79. <https://doi.org/10.1016/j.appet.2016.03.020>
- Mary, O. O., Jerffson, O. K., & Abiodun, O. J. (2019). Nutritional status and eating patterns of preschool children in a community in south-west Nigeria. *Nigerian Journal of Nutritional Sciences*, 40(2), 30–37.
- Nekitsing, C., Hetherington, M. M., & Blundell-birtill, P. (2018). Developing Healthy Food Preferences in Preschool Children Through Taste Exposure , Sensory Learning , and Nutrition Education. *Current Obesity Reports*, 7, 60–67. <https://doi.org/https://doi.org/10.1007/s13679-018-0297-8> psychological
- Nurhayati, A., Lasmanawati, E., & Yulia, C. (2012). Pengaruh mata kuliah berbasis gizi pada pemilihan makanan jajanan mahasiswa program studi pendidikan tata boga. *Penelitian Pendidikan*, 13(1), 1–6. <http://jurnal.upi.edu/file/1-ai.pdf>
- Osera, T., Tsutie, S., Kobayashi, M., & Kurihara, N. (2012). Relationship of Mothers’ Food Preferences and Attitudes with Children’s Preferences. *Food and Nutrition Sciences*, 3(10), 1461–1466. <https://doi.org/10.4236/fns.2012.310190>
- Pavilianingtyas, A. (2017). Faktor agen, pejamu, dan lingkungan kejadian obesitas pada anak usia 5-6 tahun. *Jurnal Gizi Indonesia (The Indonesian Journal of Nutrition)*, 5(2), 105–111. <https://doi.org/10.14710/jgi.5.2.105-111>
- Pusat Pendidikan Sumberdaya Manusia Kesehatan. (2017). *Ilmu Teknologi Pangan* (pp. 1–201). Kemenkes RI. <http://bppsdmk.kemkes.go.id/pusdiksdmk/wp-content/uploads/2017/11/Ilmu-Teknologi-Pangan-Final-Sc.pdf>
- Putri, R. M., & Lasri. (2016). Pekerjaan, Tingkat Pendidikan dan Pengetahuan Ibu Pra Sekolah Tentang Gizi Seimbang. *Care*, 4(3), 78–87.
- Russell, C. G., Worsley, A., & Liem, D. G. (2014). Parents ’ food choice motives and their associations with children ’ s food preferences. *Public Health Nutrition*, 18(6), 1018–1027. <https://doi.org/10.1017/S1368980014001128>
- Scaglioni, S., Arrizza, C., Vecchi, F., & Tedeschi, S. (2011). Determinants of children’s eating behavior. *The American Journal of Clinical Nutrition* 2, 11(94), 2006–2011. <https://doi.org/10.3945/ajcn.110.001685.1>
- Scaglioni, S., Cosmi, V. De, Ciappolino, V., Brambilla, P., & Agostoni, C. (2018). Factors Influencing Children’s Eating Behaviours. *Nutrients*, 10 (706), 1–17. <https://doi.org/10.3390/nu10060706>
- Wachdani, R., Abidin, Z., & Yaqin, M. A. (2012). Pengatur Pola Menu Makanan Balita Untuk Mencapai Status Gizi Seimbang Menggunakan Sistem Inferensi Fuzzy Metode Sugeno. *Matics*, June 2016, 1–7. <https://doi.org/10.18860/mat.v0i0.2007>

IMPROVING MOTHER'S SKILLS IN THE TECHNOLOGY OF MAKING MAIN FOODS AND HEALTHY SNACKS AND THE NUTRITIONAL STATUS OF PRE-SCHOOL CHILDREN

ORIGINALITY REPORT

6%

SIMILARITY INDEX

4%

INTERNET SOURCES

4%

PUBLICATIONS

3%

STUDENT PAPERS

PRIMARY SOURCES

1	"1st Annual Conference of Midwifery", Walter de Gruyter GmbH, 2020 Publication	2%
2	Submitted to Udayana University Student Paper	2%
3	Submitted to Universitas Pendidikan Indonesia Student Paper	1%
4	Debie Susanti. "The Influence of Nutrition Status on Executive Function of Early Childhood Education in DKI Jakarta Province", International Journal of Education, Culture and Society, 2018 Publication	1%
5	journal2.unusa.ac.id Internet Source	1%
6	repositorii.urindo.ac.id Internet Source	1%

Exclude quotes On

Exclude matches < 1%

Exclude bibliography On