

THE RELATIONSHIP OF MATERNAL COMPLEMENTARY FEEDING KNOWLEDGE, ATTITUDE ON CHILD WEIGHT AT JEMBER REGENCY

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ABSTRACT

Malnutrition is still one of the problems in Indonesia. Good feeding is one of the important indicators in preventing children from experiencing malnutrition. Nutritional problems in children can cause long-term problems such as growth disorders, non-optimal brain development. Feeding problems can be leveled from the provision of complementary breastfeeding. The purpose of this study is to assess the mother's knowledge and attitudes related to complementary breastfeeding and its relationship with children's weight. The method used in this study is purposive sampling with a total sample of 130 mothers conducted in Jember district. It was found that mothers who have knowledge and positive attitudes have children with ideal weights according to the age of the child.

Keywords: Attitude, Complementary Feeding, Knowledge.

1. INTRODUCTION

Children has right to have a good nutrition starting from early life. Based on 2022 data it can be clearly seen that stunting remaind number one problem in child weight by 148.1 million cases. Meanwhile wasting was on the second place with 45 million cases (UNICEF et al., 2023). The early and long-term consequences of stunting are poor child development, low learning capacity, increased chance of infection/mobidity too mortality rate. The rate of non communication disease also will increase with stunting children (Soliman et al., 2021).

Stunting will increase the probability of future obesity due to lower energy expenditure and long term high fat diet (Soliman et al., 2021). Under nutrition children also vulnerable to major delay

development risk especially in rural area (De & Chattopadhyay, 2019). Children nutrition problem from early age most likely related to subsequent and presisten growth faltering especially during the first 2 years of life. Children who grow with multiple growth deficits are exhibited to higher mortality rate on their first 2 years (Mertens et al., 2023). Aside from mortality, there are several irreparable physical and neurocognitive damage that accompany stunting condition, such as vulnerable growth, hormonal implications, insulin problem, endocrinopathies, hypertension, and risk of obesity (Soliman et al., 2021).

By Indonesia Health Survey in 2023, the stunting rate was on 21.5%, it still far away from our target in 14% by 2024 (Tarmizi, 2024).Based on research on Geographic Information Systems, several risk categories of

stunting areas in Jember were obtained. Areas that are included in the high risk are Kencong, Jenggawah, Rambipuji, Jelbuk, and Kaliwates, Sukowono Districts, while very high-risk areas are Kalisat, Ledokombo, and Sumberjambe Districts. The low-risk sub-district is in Summersari District, which is an urban area, while the risk areas are mostly in the countryside and bordering other cities (Arfiani, 2021).

According to previous research, there were 30.1% children with stunting (Fatkuriyah et al., 2024) 8.5% children with severely underweight and 13.83% children with moderately underweight in Sukosari Village Sukowono District (Fatkuriyah & Sukowati, 2023). In addition to stunting rates, the underweight rate in Jember Regency is also still high and is one of the focuses of the government's programs in reducing the rate of child malnutrition (Dinas Kesehatan, 2021) Based on data from the Jember Regency Health Office, the number of children under 6-23 months old in 2021 who were stunted was 117,435 children, and 18,219 children were underweight (Dinas Kesehatan, 2021).

The global strategy to reduce this problem is to increase breastfeeding practice and children diet especially in early life. By promoting healthy infant and children feeding (IYCF) is essentially protect and prevent growth faltering in children (United Nations Children's Fund (UNICEF), 2013). Increase public awareness, promote collaboration and collective action across sectors are needed in order to continuously reduce undernutrition rate (Kementerian Kesehatan Republik Indonesia, 2021). The main reason that we still needed to increase maternal knowledge is because in East

Jawa Province the knowledge was in 65.5% by 2023 (Indonesian Ministry Of Health Development Policy Board, 2023). Acceleration of national campaign to promote child feeding and practices become one of government agenda to reduce any form of malnutrition (Jin & Guo, 2023). Maternal knowledge, myth problem, low health seeking behaviour along with community problem such as inability to find nutrition food become factors on child nutrition problem (Abas et al., 2020). Previous research has explored more about the relationship between maternal knowledge and attitudes towards maternal behavior in feeding. So there is no research that directly connects the knowledge and attitude of mothers to their children's weight.

2. RESEARCH METHOD

This research is a cross-sectional research carried out in September 2024. This research was conducted in Sukowono district, Jember Regency. Data collection is done once. The location selection is Sukowono district is a district with a large number of mothers with children under five and is one of the sub-districts that has stunted children in Jember Regency. The maternal population in that month was 200 mothers, and the sample taken was 130 mothers as respondents. The technique used is simple random sampling.

Statistical analysis in this study is univariate and bivariate, univariate analysis is used to identify the characteristics of the respondent while bivariate analysis in this study is used to determine the influence of maternal knowledge and attitudes on the child's weight which is analyzed using the Pearson correlation test. The questioner was using FAO complementary feeding questioner

that has been validated. This study uses a questionnaire from FAO that examines maternal knowledge and attitudes regarding feeding. The knowledge questionnaire consists of 7 questions with a correct score of 1. The questions in the knowledge section assess from the ability to breastfeed children to feeding. In the assessment of attitudes, the assessed are confidence, benefits and obstacles faced by children. Knowledge assessment has a maximum value of 7. Knowledge is divided into low and high knowledge. Meanwhile, mothers' attitudes are divided into positive and negative attitudes. The assessment of children's weight is divided into underweight, normal and obese categories using BMI or weight divided by the child's height. This research received ethical feasibility with the number: 2821/UN25.8/KEPK/DL/2024

3. RESULTS AND DISCUSSION

Table 1. Characteristics Responden

No.	Characteristic Respond	Number (N)	Percentage (%)
1	Age 1		
	< 20 Years	0	0
	20-35 Years	125	96.1
	>36 Years	5	3.9
	Total	130	100
2	Child Age		
	> 6 Months	8	6.2
	6-12 months	68	52.3
	>12-24 months	41	31.5
	>24 months	13	10
	Total	130	100
3	Child's Birth Age		
	Not Enough Months	0	0
	Enough Months	130	100
	Total	130	100
4	Mom's Job		
	Doesn't Work	68	52.3
	Work	62	47.7

	Total	130	100
5	Mother's Parity		
	1 child	50	38.5
	2 children	60	46.2
	3 children	14	10.8
	>3 children	6	4.6
	Total	130	100
6	Education		
	Elementary	21	16.2
	Junior High	17	13.1
	Senior High	65	50.0
	College	27	20.8
	Total	130	100

From the research it clearly seen in table 1. that the most mother were on age 20-35 years old with total 125 mother (96.1%). Meanwhile, the children age was mostly on 6-12 month (68 children) and 12-24 month (41 children). It found that all children born within normal due date.

In this study, the results of all mothers attending school were also obtained, and the most education was in high school or entering the secondary education group, and most of the mothers did not work and were housewives. This demographic picture is similar to a study in Indonesia in 2017 where the gestational age of mothers is in the age range of 25-49 years with an average number of 2 children (BKKBN et al., 2018).

Data collection from this research found that most mother doesn't have any job (52.3%) and have 2 children in average (46.2%). While her education was in senior high school (50.0%) and only 27 mothers have a college degree. Similar pattern found in different research in Indonesia, where most of the mother have senior high school degree and have minimal 2 to 3 children (Melangka et al., 2021). Maternal education is become related factor to child malnutrition. Aside form maternal education, maternal nutritional status, lactation duration, wealth quintile and health care service availability also part

of malnutrition prediction factor (Tandang & Domingo, 2022).

Table 2. Maternal Knowledge and Attitude and Children Weight Category

No.	Variable	Number (N)	Percentage (%)
1	Knowledge		
	Low	9	6.9
	High	121	93.1
	Total	130	100
2	Attitude		
	Negative	15	11.5
	Positive	106	88.5
	Total	130	100
3	Child Weight		
	Normal	95	73.1
	Underweight	29	22.3
	Obesity	6	4.6
	Total	130	100

Based on the data, it was found that the mothers in this study had high knowledge related to complementary feeding (93.1%), the attitude of most mothers was positive in feeding their children (88.5%). In line with the weight of children compared to the age which is in the normal category of 95 children (73.1%).

Knowledge about child feeding is important because parents with low knowledge have a 10x greater risk of having a child with malnutrition than parents with good knowledge. Therefore, it is important for mothers to have better knowledge in parenting children (Fitriani, 2020). Mother who understands the needed of diversity food for the children mostly have a good complementary feeding knowledge. And most mother who share good knowledge will most likely have healthier children and lower chance of getting stunting (Mihretie, 2018). The knowledge of child feeding starting from breastfeeding mostly corelate to better practice. The knowledge of child feeding can be provided during the ANC session at clinic (Mutonhodza et al., 2020).

Mother's attitude regarding the provision of complementary foods is closely related to several factors such as maternal education, counseling with health workers, access to information such as radio can improve maternal attitudes so that they become more positive (Abiyu & Belachew, 2020). Mother who have a good complementary feeding knowledge will influence their feeding attitude (Zakaria et al., 2022). Positive attitude on maternal feeding practice is in relation to a good knowledge and also factor such as father income that will increase their adequate diet and nutrition (Appiah et al., 2020).

Table 3. The Relationship Between Knowledge, Attitude and Child Weight

Variable	Child_Weight	Variable
Knowledge	Pearson	0.619
	Correlation	
	Sig. (2-tailed)	<.001
	N	130
Attitude	Pearson	0.244
	Correlation	
	Sig. (2-tailed)	0.005
	N	130

Based on table 3, the results were obtained that the mother's knowledge of child food had a correlation with the child's weight with a p-value of <.001. Meanwhile, the mother's attitude in feeding the child also had a positive correlation with the child's weight with a p-value of 0.005. Based on the results, it was found that the higher the mother's knowledge and the more positive the mother's attitude it wil increase children weight.

Maternal poor knowledge especially on underweight children is related to poor practice of childcare. Education intervention are suggested to mother with underweight children (Ibrahim Ali Mohammed et al., 2023). Knowledge and practice of the

children can be increase by using maternal child book and education directly to mother. By giving education and example mother can increase their feeding practice and children weight (Nafista et al., 2023). Book implementation also become alternative way to increase maternal knowledge. The book can be distributed within 3 month to achieve higher IYCF knowledge on mother (Melangka et al., 2021).

An Effective communication packages for mother will increase maternal knowledge on proper child feeding. The dietary diversity will increase if the mother experienced maternal education (Sichalwe et al., 2023). Children food diversity will most likely increase children weight (Nafista et al., 2022). Restrictive feeding practice is associated with increase weight gain in children. The interaction phase during child feeding become a significant role to increase child weight (Spill et al., 2019).

It was suggested that children adequate diet can be assessed on children welfare clinic, along with increasing maternal knowledge and attitude on child feeding (Bimpong et al., 2020). By increasing maternal information source on complementary feeding, mother will understand more about availability of nutrition for their children (Tasnim et al., 2018). Barrier identification also needed to support the health facility program. Integrating agricultural with behaviour change also suggested to improve child feeding, along with strengthening local community, health worker structure and training to enhance the benefit (Rakotomanana et al., 2020). Integration of multisectoral become key to escalate children nutrition. Maternal pre-pregnancy, pregnancy and breastfeeding become critical point on children nutrition. Primary care play critical role to provide adequate screening and management for children under 5 year with malnutrition (Govender et al., 2021). Government has significant role in

policy making, refining and optimizing resources especially in critical area (Boua et al., 2023). Based on the knowledge of mothers in providing complementary foods, breast milk is an important factor in increasing children's weight and preventing stunting.

4. CONCLUSION

Based on this study, it was found that mothers who have high knowledge, a positive attitude in providing complementary foods for breast milk are able to have children with a normal weight. Children who have mothers who understand feeding do not have nutritional problems such as stunting or wasting. Adequate maternal knowledge and a positive attitude are the keys to effective child feeding. Continuous education is one of the ways that various sectors can do to increase the effectiveness of child feeding from an early age.

The weight of toddlers is influenced by many factors, both directly and indirectly. Many previous studies have proven that direct factors such as the amount and type of food intake consumed by toddlers affect the weight of toddlers. The results of this study emphasized that indirect factors such as mothers' knowledge and attitudes about feeding children also have an impact on the weight of toddlers. It can be underlined; to achieve an age-appropriate weight of toddlers it is important to modify these direct and indirect factors.

5. RECOMMENDATIONS

For further research, it is necessary to evaluate feeding from the aspect of diversity in quantity and time such as how the nutritional status of mothers can affect the nutritional status of children. The government and health workers need to continue to carry out routine monitoring related to nutrition problems in children because this is still an issue in Indonesia.

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