

Relationship between Weight Gain in Toddlers Aged 6–36 Months and Mothers' Knowledge and Attitude about Nutrition Fulfillment

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ABSTRACT

In essence, good nutritional fulfillment starts as early as feasible because childhood is where the healthiest development must start. A number of interconnected variables can lead to nutritional issues. The purpose of this study is to determine the mothers' attitudes and knowledge regarding the relationship between weight gain and nutritional fulfillment in toddlers aged 6 to 36 months. This kind of study uses a cross-sectional design and is analytical. Up to 55 mothers with children between the ages of 6 and 36 months made up the study's group. The Purposive Sampling approach was used to collect samples from 49 respondents. Mothers' views and knowledge regarding nutritional fulfillment are gathered through the use of weighing and questionnaires. Spearman's Rho was used for data analysis. The findings indicated that 78% of toddlers gained weight, 61% of mothers had positive attitudes, and 61% of moms had strong knowledge. The bivariate analysis's findings indicated a correlation between the mother's opinions regarding balancing nutrition and toddler weight gain ($\rho=0.000$) and her knowledge of nutrition and toddler weight gain ($\rho=0.000$). The study's findings demonstrated a relationship between toddler weight gain and mothers' attitudes and knowledge regarding a healthy diet. In order to achieve and sustain the ideal toddler weight based on the body mass index, it is hoped that moms of young children will gain more understanding about providing healthy meals for their children.

Keywords: attitude, knowledge, nutrition, toddlers, weight

BACKGROUND

Fulfillment of good nutrition essentially starts as early as possible because the best development must begin from childhood. Nutrition is an organic substance needed by the body and is a factor that greatly influences the quality of human growth and development (Pahlevi, 2012). Nutritional problems arise due to various factors that are related to each other. One of the influencing factors is awareness of the importance of nutrition, this is influenced by the mother's attitude. Lack of nutritional awareness in society is the main cause of malnutrition. This is because they do not understand the meaning of nutrition for life, so that in their lives they do not try to eat nutritious food. Apart from that, there are still many unsupportive behaviors and low levels of public education (Acmadi, 2012).

United Nation Children's Fund (UNICEF) in Thamaria (2017), developed a chart of the causes of malnutrition. The direct cause of malnutrition is an imbalance between food intake related to infectious diseases, while the indirect causes of nutritional problems consist of food security, parenting patterns, sanitation, and inadequate health services. The bad impacts that can be caused by the nutritional problems mentioned above, in the short term are disruption of brain development, intelligence, physical growth disorders, and metabolic disorders in the body, while in the long term the bad consequences that can be caused are decreased cognitive

abilities, decreased body immunity, and a high risk is the occurrence of stunting due to chronic malnutrition (Jahari, et.al., 2013).

The nutritional intake obtained by children can be influenced by the knowledge, attitudes and parenting patterns of their families and the environment (Rakhmawati, N. Z., & Panunggal, 2014). Providing good food to toddlers also requires good knowledge. Everyone's level of knowledge about nutrition is certainly not the same. This occurs due to various factors such as education, information, social culture, environment, experience and age (Budiman et al., 2013). In accordance with the opinion of Dewi and Rusjiyanto, (2018), low maternal nutritional knowledge can cause obstacles to efforts to improve good nutrition in the family.

Optimal nutritional needs for development and growth need to be considered because toddlers are very vulnerable to disorders that arise due to malnutrition (Pratiwi et al., 2016). Lack of knowledge about food ingredients can lead to wrong choices of food ingredients and low knowledge of nutrition will lead to an indifferent attitude towards the food consumed (Romdiyatin, 2016). According to Mubarak et al., (2017) attitude is a person's reaction or response to a stimulus or object. Attitude in daily life is something that is emotional towards social stimuli. In babies and children, malnutrition will cause growth and development disorders which, if not immediately addressed, can continue into adulthood. The age of 6-36 months is a period of very rapid growth and development, so it is often termed the golden period or critical period. The golden period can be realized if during this period babies and children receive appropriate nutritional intake for optimal growth and development.

Babies and children whose nutritional requirements are inadequate will gain weight, then the golden period will turn into a critical period which will disrupt the growth and development of babies and children, both now and in the future. One way to research the nutritional status of toddlers is to look at body weight compared to age using the weight for age index (WW/U) (Ministry of Health of the Republic of Indonesia, 2020).

Based on data from the Ministry of Health, the stunting rate in Indonesia in 2023 was recorded at 21.5%, only down 0.1% from the previous year which was 21.6%. Indonesia is targeted to reach a stunting prevalence rate of 14% by the end of 2024. To achieve the target of 14% by the end of 2024, a decrease of 7.5% is needed from the figure of 21.5% in 2023.

Based on data from the 2023 Indonesian Health Survey (SKI), the prevalence of stunting in Papua Province is above the national average, namely 28.6%. The prevalence of stunting under five in Fakfak Regency in 2020 was 27.4%, in 2021 23.3%, in 2022 24.3% and in 2023 17.8%. Thus, it can be seen that the prevalence of stunting in Fakfak Regency from 2020 to 2023 has decreased by 9.6%. In 2023, the highest prevalence of stunted toddlers will be in the Middle East Fakfak District, namely 39.7% and the lowest in the Pariwari District at 12.2%. Apart from that, in 2023 there are 2 districts that tend to experience an increase in the prevalence of stunted toddlers every year, namely Central Fakfak District from 2020 to 2023, an increase of 6.8%, Mbahamdandanra District from 2020 to 2023 an increase of 14.7%. Meanwhile, 15 other districts experienced a decline. Districts that experience an increase in prevalence need to receive special attention to accelerate stunting reduction.

METHODS

The research design used in this study is a correlational analytic study with a cross-sectional approach, in which data on both independent and dependent variables are collected at the same time. The purpose of this study is to determine the relationship between maternal age and parity with the incidence of intrauterine fetal death at Gandasuli Public Health Center, South Halmahera District, North Maluku Province in 2024. The population in this study includes all pregnant women who received treatment at Gandasuli Public Health Center over the past six months, from January to June 2024, totaling 48 respondents. The sampling technique used is total sampling, as the population is fewer than 100 individuals; therefore,

all members of the population are included as the sample (Arikunto, 2010). The inclusion criterion in this study is mothers who are recorded in medical records and experienced intrauterine fetal death, while the exclusion criterion is mothers who are not listed in the medical records.

The variables in this study consist of independent variables, namely maternal age and parity, and the dependent variable, which is the incidence of intrauterine fetal death. The type of data used in this study is secondary data obtained from patients' medical records during the period of January to June 2024. Data collection was carried out using a data collection sheet to obtain the necessary information related to maternal age, parity, and the incidence of intrauterine fetal death. The stages of the research procedure began with obtaining a research permit from the Faculty of Health Sciences, University of Kadiri, followed by requesting permission from the Head of Gandasuli Public Health Center, South Halmahera District, North Maluku Province. The researcher also reported to the medical records officer regarding the data collection process using secondary medical record data. The collected data were then compiled and processed using a computer for further analysis in accordance with the research objectives.

RESULTS

General Data

Characteristics of Respondents Based on Mother's Age

Table 1. Respondent Characteristics Based on Mother's Age

Mother's Age	Frequency	Percentage (%)
17 – 25 Years	9	18
26 – 35 Years	39	80
36 – 45 Years	1	2
Amount	49	100

Based on table 1 above, it is known that the majority of respondents who are mothers of toddlers are aged 26-35 years, as many as 39 respondents (80%) and the lowest is aged 36-45 years, as many as 1 person (2%).

Respondent Characteristics Based on Toddler Age

Table 2. Respondent Characteristics Based on Mother's Toddler

Toddler Age	Frequency	Percentage (%)
6 – < 9 Month	4	8
9 – < 12 Month	10	20
12 – < 18 Month	15	31
18 – < 24 Month	11	22
2 – < 3 Years	7	15
3 – < 4 Years	2	4
Amount	49	100

Based on table 2 above, it is known that the majority of toddler respondents are aged 9 – <12 months, as many as 15 respondents (31%) and the lowest are aged 3 – <4 years, as many as 2 people (4%).

Respondent Characteristics Based on Toddler Gender

Table 3. Respondent Characteristics Based on Toddler Gender

Toddler Gender	Frequency	Percentage (%)
Man	21	43
Woman	28	57
Amount	49	100

Based on table 3 above, it is known that the majority of toddlers are female, amounting to 28 respondents (57%).

Respondent Characteristics Based on Mother's Education

Table 4. Respondent Characteristics Based on Toddler Gender

Education	Frequency	Percentage (%)
Elementary School	4	8
Junior High School	13	27
Senior High School	32	65
College	0	0
Amount	49	100

Based on table 4 above, it is known that the majority of respondents' education as mothers of toddlers is high school, as many as 32 respondents (65%) and the lowest is elementary school education, as many as 4 people (8%).

Special Data

Mother's Knowledge on Nutritional Fulfillment for Toddlers Aged 6 - 36 Months

Table 5. Distribution of Mothers' Knowledge about Fulfilling the Nutritional Needs of Toddlers Aged 6 - 36 Months

Knowledge	Frequency	Percentage (%)
Not enough	10	20
Currently	9	19
Good	30	61
Amount	49	100

Based on table 5 above, it shows that most of the knowledge of mothers of toddlers at the Sekban Health Center, Fakfak Regency, West Papua has good knowledge as many as 30 respondents (61%) and the lowest has moderate knowledge as many as 9 respondents (19%).

Mothers' Attitudes on Fulfilling Nutritional Needs for Toddlers Aged 6 - 36 Months

Table 6. Distribution of Mothers' Attitudes on Fulfilling Nutritional Needs for Toddlers Aged 6 - 36 Months

Attitude	Frequency	Percentage (%)
Not Enough	10	20
Enough	9	19
Good	30	61
Amount	49	100

Based on table 6 above, it shows that most of the attitudes of mothers of toddlers have a good attitude, 30 respondents (61%), the lowest have a sufficient attitude, 9 respondents (19%).

DISCUSSION

Mother's Knowledge about Fulfilling Toddler Nutrition

Based on the results of research regarding mothers' knowledge about fulfilling nutrition, it can be seen that out of 49 respondents, 30 mothers (61%) have good knowledge. Meanwhile, the rest have less knowledge, as many as 9 mothers (19%) and moderate knowledge as many as 10 mothers (20%). This is in line with research conducted by Julia Sinta (2022) that mothers with high knowledge will provide good nutrition to their toddlers, while mothers with moderate and poor knowledge do not provide good nutrition to their toddlers.

Notoatmodjo (2017) added that knowledge or cognitive is a very important domain in shaping a person's actions. Activities related to improving nutrition involve many mothers, so mothers are the main figures who must care about the nutritional status of their children. Rogers' (1974) research revealed that cognitive knowledge is a very important domain in shaping a person's actions (overt behavior). From the results of observations, it will last longer than new behavior or adoption of behavior through stages based on knowledge, awareness and positive attitudes, so the behavior will be long lasting.

Based on research, it is proven that behavior based on knowledge is more lasting than behavior that is not based on knowledge. In the questionnaire, many mothers agreed that toddlers need to be given a variety of foods and in accordance with balanced nutritional guidelines to meet their needs, many mothers chose to agree that the use of iodized salt needs to be given in toddler food.

Mother's Attitudes on Fulfilling Toddler Nutrition

Based on the results of research regarding mothers' attitudes on fulfilling nutrition, it can be seen that out of 49 respondents, 30 mothers (61%) have good attitudes. Meanwhile, the rest have sufficient attitudes, as many as 9 mothers (19%) and moderate attitudes as many as 10 mothers (20%). This is in accordance with the research conducted by Rahmatilah (2022), where the results of the statistical test of the relationship between attitudes and nutritional status of toddlers were that there was a significant relationship with $p = 0.001$, meaning that there was a relationship between attitudes and nutritional status of toddlers. According to Behrman, Kligman, Arvin & Wahab (2019), factors that influence the formation of attitudes include personal experience and knowledge, culture, people who are considered important, mass media and emotions within oneself. Attitude is a very important concept in the socio-psychological component, therefore the tendency to act and perceive. Attitude is a neural setting before giving a concrete response.

Researchers assume that many mothers have good attitudes, this is due to the mother's ability to choose good food for her child. This is in accordance with the number of mothers who chose to disagree on the questionnaire that giving food to toddlers does not need protein and many mothers of toddlers who chose to agree that giving food to toddlers 3 times a day with various variations.

Many mothers have good attitudes because they have good knowledge, especially about toddler nutrition. Good attitudes are caused by the age of the mother who is already an adult, so that it gives rise to the mother's ability to care for her toddler properly and correctly, this is in accordance with the age of the toddler's mother, most of whom are 26-35 years old, as many as 39 toddler mothers (80%). And it was found that mothers have good attitudes about how to fulfill one of the child's nutrition is providing snacks in the form of fruit. In addition, before feeding the child, the mother will wash her hands first.

Toddler Weight Gain

Based on the results of a study regarding toddler weight with KMS (Healthy Menu Card). It is known that 38 toddlers (78%) experienced weight gain, while 9 toddlers (18%) experienced weight loss and the remaining 2 toddlers (4%) with constant weight. According to Bindiknakes (2021), a person's nutritional adequacy can be obtained from a variety of foods. This nutritional adequacy can be seen from the increase in body weight that is in accordance with age or in other words, the ideal weight is always maintained.

Toddlerhood, a very important period of life where the growth and development process is very rapid, namely physical growth and psychomotor, mental, and social development (Adriani, 2022).

Parenting patterns are the attitudes and behaviors of a mother or caregiver towards her child in providing food, health care, cleanliness, giving affection and so on (Directorate of Community Mental Health, 2021). Continuous changes in attitudes can affect a person's behavior, where good nutritional fulfillment behavior can improve the child's nutritional status.

Researchers assume that the large number of toddlers who experience weight gain is due to good maternal knowledge in accordance with the mother's education level, the majority of whom are in high school, as many as 32 mothers of toddlers (65%). This has an effect on the fulfillment of nutrition obtained from the questionnaire and attitudes in providing a variety of foods to toddlers in accordance with what is fill in the questionnaire. The relationship between knowledge and attitudes towards nutritional fulfillment affects toddler weight gain.

CONCLUSION

The findings indicate that the majority of mothers possess good knowledge (61%) and maintain a positive attitude (61%) toward fulfilling the nutritional needs of toddlers. This is reflected in the nutritional status of the children, as 78% of toddlers experienced weight gain based on the KMS records. Furthermore, the study reveals a statistically significant relationship between mothers' knowledge and attitudes regarding nutrition and the weight gain of toddlers. These results suggest that improving maternal knowledge and attitudes about nutrition may positively influence the growth and development of toddlers.

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