

THE RELATIONSHIP BETWEEN FATHER'S PARTICIPATION IN COMPLEMENTARY FEEDING AND THE NUTRITIONAL STATUS OF BABIES 6-12 MONTHS



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ABSTRACT

Introduction: Proper complementary feeding (MPASI) is an important factor in supporting the growth and development of the baby, especially in determining the nutritional status of the baby. The involvement of fathers in the provision of complementary foods can contribute to the nutritional status of the baby, but there are still many fathers who are less involved in this process. **Objective:** This study aims to analyze the relationship between fathers' participation in complementary feeding and the nutritional status of infants aged 6–12 months in Gandatapa Village. **Methods:** This study used a quantitative correlation analysis method with a cross-sectional design. **Results:** Characteristics of fathers with a median age value of 33 years with a majority of high school education, working as laborers and income <UMR Banyumas in 2024. The majority of fathers' participation is classified as sufficient with the normal majority nutritional status. The analysis of the Somers'd test obtained a p-value = 0.292 ($p > 0.05$) which showed that there was no significant relationship between the participation of fathers in the provision of complementary foods and the nutritional status of infants aged 6–12 months in Gandatapa Village. **Conclusion:** there was no significant relationship between the participation of fathers in the provision of complementary foods and the nutritional status of infants aged 6-12 months in Gandatapa Village.

Keywords: complementary foods, complementary feeding, father, participation, nutritional status

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INTRODUCTION

Nutrition has a very essential role in the growth and development of children, as well as related to health and intelligence (Arnita, Rahmadhani and Sari, 2020; Shobah, 2021). Malnutrition is caused by nutritional imbalances, which can increase the risk of stunting in toddlers. Undernutrition or poor nutrition problems can be overcome by providing good nutritional intake and ensuring that children's nutritional needs are met (Mauliddina, Pabidang and Kusmiyati, 2023).

Globally, in 2022, as many as 45.4 million children under five years old are affected by malnutrition or lack thereof, causing underweight (World Health Organization, 2023). Based on data from the Ministry of

Health (2022), the percentage of underweight and underweight children was 17.1%. Central Java itself has a percentage of 17.6% of underweight children. Banyumas Regency has a percentage of 14% of children suffer from underweight.

Six-month-old babies are physiologically able to receive complementary foods because their digestive tract functions have developed (Ratnawati et al, 2017). After the baby reaches the age of six months, exclusive breastfeeding is considered no longer able to meet the nutritional needs of the child optimally. Therefore, giving complementary foods is very important to obtain additional energy and nutrients needed by the baby. This nutrition is used to determine the nutritional status of children (Shobah, 2021). Factors

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such as family parenting, sanitation, health services, and socioeconomic conditions affect the nutritional status of toddlers (Maniangan, Marsela and Nova, 2023).

The parenting factor certainly does not only come from the role of the mother, the role of the father is also indispensable in the development of the nutritional status of the child (Tahapary et al., 2023). Fathers' participation in providing stimulation to children in the family plays an important role in supporting normal child growth (79%) and appropriate development (83%) (Suryati and Nurlaila, 2021). This statement is also supported by Allotey (2022) and Harris (2020) who state that the involvement of fathers in providing complementary foods and nutritional status can be done in several ways such as providing money to buy groceries, buying special food for children, giving mothers knowledge about how to feed children, washing children's hands before eating, feeding children, teaching children to choose food for themselves, as well as helping with other work so that mothers can prepare or bribe children.

Preliminary studies show that four out of five fathers are enough to help mothers prepare children's complementary foods, especially dinner because they have finished work, but one father does not participate in preparing children's meals because they are tired after a long day of work. In addition, data was obtained that the weight of children, both those who had active involvement of the father and those who had less active involvement of the father, were both classified as normal. Of course, the active participation of fathers in giving complementary foods will help mothers calm and motivate children when children eat. This father's participation is quite interesting for researchers to further research the relationship between father's participation in complementary food administration and the nutritional status of babies aged 6–12 months.

METHOD

The research design used by the researcher was correlation to determine the relationship between fathers' participation in the provision of complementary foods and the nutritional status of children aged 6 – 12 months with quantitative methods using a cross sectional approach. This research was conducted in

Gandatapa Village, Sumbang District, Banyumas Regency, Central Java in August 2024 – January 2025. The population in this study is fathers who have children aged 6–12 months with a total of 51 fathers. Samples use total sampling. After data collection, the sample amounted to 44 fathers.

The research conducted by this researcher used three questionnaires to obtain data from respondents. The questionnaire contains a statement of the father's demographic data, a statement about the father's participation, and a check of the child's nutritional status which refers to the results of the last posyandu scale on the Towards Healthy Card (KMS) owned by the baby. The demographic sheet questionnaire and ECLS-B are intended for the baby's father. The demographic sheet consists of the initials of the father's name, age, education, occupation, and income. The measurement of father's participation was measured using a questionnaire. The measurement of father participation was measured using the Early Childhood Longitudinal Study (ECLS-B Father self-administered questionnaire (national center for education statistics)) which consisted of 88 questions and statements about the relationship between father and child and partner. After being modified, the statement becomes a total of 14 questions and consists of 2 parts. The first part of the question about feeding practice amounted to 13 questions and the second part of the question of father's perception of nutritional fulfillment amounted to 1 question. The validity and reliability test of the ECLS B questionnaire was carried out in a study conducted by Rohmah in 2018. The validity test is carried out using the

Pearson Product Moment and obtained a large r table according to the number of respondents tested with p which is 0.632. Therefore, the validity test on the father's participation questionnaire is valid for each question item. As for reliability, the results were obtained that Cronbach's Alpha was 0.775 which interpreted that the questionnaire was reliable.

RESULTS AND DISCUSSION

1. Respondent Characteristics

Table 1. Respondent Characteristics

Karakteristik Responden	Frekuensi	Persentase (%)	Nilai tengah (min-maks)
Usia Ayah (tahun)			33 (24-50)
Tingkat Pendidikan			
SD	16	36,4	
SMP	11	25	
SMA	17	38,6	
Pekerjaan			
Karyawan swasta	9	20,5	
Pedagang	7	15,9	
Buruh	22	50	
Petani	2	4,5	
Supir Travel	1	2,3	
Teknisi	1	2,3	
Montir	1	2,3	
Pengusaha	1	2,3	
Penghasilan			
<2.195.690	31	70,5	
≥2.195.690	13	29,5	
Umur Bayi (bulan)			9 (6-12)
Jenis Kelamin Bayi			
Perempuan	22	50	
Laki-laki	22	50	
Berat Badan Bayi:			
a. Saat Ini (kilogram)			8,2 (6,25-15,5)
b. Berat Lahir (kilogram)			9 (2,1-3,7)

Table 1 shows that the median age of the father is 33 years. The value of the father's age in Gandatapa Village is a natural thing to happen because the number of people aged 30-34 years is included in the productive age group. This average age may indicate that many families consist of parents, especially fathers as the head of the family who are still productive. Based on the 2023 Population Profile Book, the number of men of productive age in Banyumas Regency is 639,107 people and as many as 66,478 are aged 30-34 years. This shows that the participants in the study are in the adult age group in accordance with the population data of Banyumas Regency.

The majority of respondents based on table 1 are high school with 17 respondents. Fathers with higher levels of education tend to have a better understanding of a healthy lifestyle and how to maintain physical fitness. This understanding is reflected in their efforts to adopt a healthy lifestyle, such as eating nutritious foods (Rachman et al., 2021). Ideally, education that has been taken until high school provides a lot of learning about nutrition, both in terms of the type of food consumed and the recommended diet. Therefore, in this study, fathers should already have a deep understanding of the ideal nutritional intake for their children (Putri and Febrianta, 2024). The next characteristics of fathers are work and income. The majority of respondents' jobs are as laborers with a total of 22 respondents with an income below the Banyumas UMR of 31 respondents. The majority of labor jobs are a fact that is in accordance with one of the types of work that is widely done to earn a living, especially in Banyumas Regency which reaches 161,611 labor workers (Banyumas Regency Population Profile Book, 2023). In addition, this majority of jobs also show that society is dependent on the informal sector with low incomes. The limited availability of better job opportunities in the village may be related to the

education level of some respondents.

The age of the infant based on table 1 has a median value of 9 months. Where indeed at the age of 6-24 months babies should be given supporting foods other than breast milk. In addition, at this age the baby's motor and cognitive abilities are in a rapidly developing phase. The food that the baby consumes in this phase will support the growth and development of the baby. The gender of the babies in this study was equal, namely 22 respondents had girls and 22 other respondents had boys. Based on the researchers' observational assumptions, girls tend to look fatter than boys. This can occur before puberty occurs because women experience faster growth as well as differences in energy reserves. Gender is one of the factors that affect determining a person's nutritional needs, because men's nutritional needs are different from women's nutritional needs (Putri, 2024).

The baby's current weight has a median value of 8.2 kilograms. This value of 8.2 kilograms can provide an early indication of the nutritional status of children in Gandatapa Village. Looking at the mid-age value of 9 months of babies, weight 8.2 is in the normal category, if referring to the Z-Score BB/U indicator for both male and female infants. According to Setyorini and Lieskusumastuti (2021), normal babies will experience a weight gain of at least one kg every month for the first two months, then increase by 0.5 kg per month until the age of six months. After that, the weight gain will decrease to 0.2-0.3 kg every month until the age of the month. The mid-weight value at birth of the baby in the study was 2.9 kilograms. This value falls into the normal category. This indicates that mothers in Gandatapa Village may have good access to health services and nutritional intake during pregnancy which plays an important role in supporting fetal development. Birth weight can be used as an indicator to assess a child's survival, growth, long-term health, and psychological development (Nashita and Khayati, 2023). Based on the Indonesian Minister of Health Regulation number 2 of 2020, the standard weight of newborns is 2.9 kilograms to 3.9 kilograms or in the range of -1 standard deviation to +1 standard deviation.

2. Overview of Father's Participation in Complementary Foods

Table 2. Father's Participation in Complementary Foods

Kategori Partisipasi Ayah	Frekuensi	Persentase (%)
Baik	1	2,3
Cukup	22	50
Kurang	21	47,7

Based on table 2, the majority of the father's

participation category is classified as sufficient as 22 respondents and the participation of fathers is less than 21 respondents. This shows that the majority of fathers have not participated in the provision of complementary foods. Based on the results of the interview, there are still fathers who help mothers in meeting their baby's nutritional needs, only giving money, fathers are not actively involved in helping mothers in feeding their children. Even during the covid 19 period, according to a survey conducted by KPAI (2020), mothers have a more dominant role in parenting children than fathers, including in parenting and implementing health protocols.

The category of father's participation of each respondent was grouped based on the highest questionnaire score of 42 and the lowest score of 14. Based on the results of the questionnaire on the question item "How much influence does father have in meeting children's balanced nutritional needs", some of the answers were influential. The question can be gives rise to a double meaning in the form of father's assumptions or the reality that the father does so that the results of the answers can give rise to bias and affect the picture of father's participation. This result is also not in line with the results of the description of father's participation, there are still many who are in the underserved category. Some of the factors that affect the involvement of fathers in parenting include the motivation of the father to play a role in the child's life. This motivation can come from internal or external factors, which are related to the father's desire to be involved in parenting. This motivation is based on a sense of responsibility as a father, the awareness that children need parental attention, interest in children, and the desire for children to receive a good value education (Muslihatun & Santi, 2022).

Fathering participation can be interpreted as the role played by a father in directing children to become independent and develop positively, both physically and psychologically (Anhusadar and Kadir, 2023). This role of the father is important in childcare, not only in terms of communicating directly, but also in controlling the child's activities and needs. Of course, communication between fathers and children in the family must be adjusted according to the age of the child (Ratnawati and Qomariyah, 2017). The role of fathers in fulfilling nutrition has an important role as an effort to improve the nutritional status of children in the family environment (Tahapary et al., 2023).

3. Overview of the nutritional status of babies aged 6-12 months

Table 3. Nutritional Status of Babies

Klasifikasi Status Gizi	Frekuensi	Persentase (%)
Lebih	8	18,2
Normal	34	77,3
Kurang	2	4,5

Based on table 3, it shows that the nutritional status of the majority of respondents is classified as normal with a frequency of 34 and a minority of respondents have a poor nutritional status with a frequency of two. This shows that the food intake consumed by babies in Gandatapa Village is quite good. In addition, this pre-normal nutritional status indicates that people may have good access and knowledge to nutritious food and health services, which play an important role in supporting children's growth and development. This nutritional status was obtained using the Weight by Age (BB/U) indicator with the classification used, namely overweight, normal, and underweight. If there is a problem with the BB/U indicator (body weight by age), then the problem that will arise is malnutrition (Setyorini and Lieskusumastuti, 2021). Normal nutritional status is a condition in which the body shows a balance that is achieved through food intake and nutrient utilization by the body (Meikasari and Mustikawati, 2021). Factors that affect nutritional status include the baby's age, history of exclusive breastfeeding, history of infectious diseases, birth distance, health services, occupation, and parental income. A very young age causes the baby's immune system to not be fully developed, making it more susceptible to nutritional problems (Lestiarini and Sulistyorini, 2020).

Exclusive breast milk is the first, main and best food for babies, which is natural. During the first six months, the content in breast milk includes various nutrients needed to support the growth and development of the baby (Timur, Irianto and Rahayu, 2023). Then children who experience this infectious disease are prone to experiencing appetite disturbances and absorption of nutrients so that it will have an impact on their nutritional status (Cono, Nsahak and Gatum, 2021).

4. The relationship between father's participation in the provision of complementary foods and the nutritional status of babies aged 6-12 months in Gandatapa village

Table 4. Father Participation in Provision of Complementary Foods of Babies

		Status Gizi			Total	Nilai <i>p</i> -value	<i>r</i>
		Lebih	Normal	Kurang			
Partisipasi	Baik	0	1	0	1	0,591	0,116
Ayah	Cukup	5	16	1	22		
	Kurang	3	17	1	21		
Total		8	34	2	44		

Keterangan: *p*-value: nilai signifikansi; *r*: koefisien korelasi

The findings in this study showed that there was no significant relationship between fathers' participation in complementary feeding and the nutritional status of the infants. In detail, it can be seen in table 4 that the participation of fathers who are included in the category of lacking, sufficient, or good to have babies with nutritional status that tends to be normal or in other words, although the participation of fathers in the provision of complementary foods varies, it does not directly affect the nutritional status of the baby. The results of the study also found that there was no meaningful relationship between the characteristics of the respondents such as the father's age, father's education level, father's occupation, father's income, infant age, baby gender, or birth weight and the nutritional status of babies aged 6-12 months in Gandatapa Village (see appendix 6).

The results of this study are in line with the research conducted by Nugrahani and Anggraeni (2024) that there is no significant relationship between stunting and the role of fathers in urban and rural areas with a *p*-value of 0.128. This almost equal proportion of normal infant nutritional status between sufficient and less paternal participation may also be the reason why the results show no significant relationship. Ideally, the better the father's participation in the provision of complementary foods, the better the nutritional status of the baby. The results of this study showed that lower paternal participation rates did not directly cause significant differences in infant nutritional status. Logically, greater involvement of fathers in the provision of complementary foods should contribute to the quality of infant nutritional intake. In this study, researchers found that 21 (47.7%) fathers never helped mothers prepare meals with a balanced menu, including fats, proteins, and carbohydrates as many as 21 (47.7%) fathers answered never. Father's involvement in complementary feeding may be more focused on helping the feeding process physically, but it does not necessarily contribute to the selection and preparation of a nutritionally balanced menu. In addition, the absence of the father in helping the mother in preparing food with a balanced menu such as rice, side dishes, vegetables, fruit and milk may occur because of the father's busyness so that there is no time to help prepare food for the baby. This

statement is supported by Nugrahani and Anggraeni in 2024 who say that fathers spend more time outside the home to work, so that their presence at home is reduced, while children spend more time with their mothers. Father's involvement provides very meaningful benefits for mothers, because fathers have a stronger emotional and inner relationship with mothers compared to other people (Suryati and Nurlaila, 2021).

The findings of this study found that the majority of fathers who ate together with their children (morning, noon, and night) answered never. These findings show that fathers are not fully aware of the obligation to create an emotional connection between father and child through participation in complementary foods. The reason why many fathers do not eat with their children is because of the demands of work that make fathers not at home during breakfast and or noon and even until night, so that the opportunity for father and son to have lunch together becomes very minimal. In accordance with the Job Creation Law Number 11 of 2020 which states seven working hours in a day or 40 hours in a week which is valid for six working days with the provision of one day off and eight hours of work in a day or 40 hours in one week which applies to five working days with the provision of two days off.

CONCLUSION

The characteristics of the respondents are that the average father is 33 years old with the majority of the level of education, namely high school. The majority of jobs are workers and the majority income is less than the Banyumas UMR. The characteristics of babies are that they have a median age of nine months, equal sex, which is 50% male and 50% female with a median birth weight of 2.9 kilograms and a current weight of 8.2 kilograms. The description of father's participation in the provision of complementary foods shows a sufficient category. An overview of the nutritional status of babies aged 6–12 months shows that the majority are included in normal nutritional status. There was no meaningful relationship between the variable participation of fathers in the provision of complementary foods and the nutritional status of infants aged 6–12 months.

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