

Association of Maternal Employment Status with Nutritional Status among Children Aged 24–59 Months: A Cross Sectional Analysis

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ABSTRACT

Background: Trends in the nutritional status of Indonesian children under five indicate an increase in the prevalence of wasting and underweight, from 7.1% and 17.0% in 2021 to 7.7% and 17.1% in 2022, respectively. Both internal and external factors may influence the nutritional status of young children. Internal factors include age, infectious conditions, sex, and dietary intake, while external factors include family income, education, knowledge, parental employment, parenting practices, family size, and food consumption patterns. This study aimed to analyze the association between maternal employment status, parenting practices, and dietary patterns with the nutritional status of children aged 24–59 months.

Methods: This study employed a cross-sectional design with a sample of 110 mothers and children aged 24–59 months. Samples were selected using a simple random sampling method. Data analysis was conducted using the Chi-square statistical test.

Results: Among the child respondents, the majority were female (61 children; 55.5%), while 49 children (44.5%) were male. Based on age categories, most children were aged 24–47 months (68 children; 61.8%), and the remaining were aged 48–59 months (42 children; 38.2%). Regarding maternal employment status, of the 110 respondents, most mothers were unemployed (80 mothers; 72.7%), while 30 mothers (27.3%) were employed. There was no significant association between maternal employment status and the nutritional status of children (p-value = 0.229).

Conclusion: Most mothers were not employed, and there was no significant association between maternal employment status and the nutritional status of children aged 24–59 months (p-value = 0.229).

Keywords: Children Aged 24–59 Months, Dietary patterns, Maternal Employment Status, Nutritional Status, Parenting Practices

A. BACKGROUND

Health is one of the most valuable investments in human resources (HR), as its value is immeasurable. In particular, the health of children under five requires special attention to ensure adequate nutrition from birth and even during the prenatal period. Children under five can be protected from undernutrition when they receive healthy and balanced nutrition from the early stages of life, thereby optimizing the quality of human resources in the future⁽¹⁾.

In 2024, globally, 42.8 million children were affected by wasting. It is estimated that 6.6% of children under five years of age experienced wasting, of whom 12.2 million (1.9%) suffered from severe wasting. More than three-quarters of children with severe wasting live in Asia, while 22% reside in Africa. In Southeast Asia, the prevalence of wasting in 2024 reached 13.6%⁽²⁾.

Based on data from the *SSGI Pocket Book 2024*, trends in the nutritional status of Indonesian children under five show a decline in the prevalence of wasting. Between 2013 and 2024, wasting among children under five decreased from 12.1% to 7.4%. The province of DKI Jakarta recorded a wasting prevalence of 5.8%, with East Jakarta ranking as the second highest at 6.9%⁽³⁾. This represents a decrease compared to SSGI 2022 data, in which DKI Jakarta had a wasting prevalence of 8%, and East Jakarta ranked fourth at 8%⁽³⁾. According to *Riskesdas 2018*, the prevalence of severely wasted children was 3.9%, while wasted children accounted for 6.2%. In the *Survey Kesehatan Indonesia (SKI) 2023*, the prevalence of severely wasted children decreased to 2.9%, whereas the prevalence of wasted children increased to 7.2%, with East Jakarta reaching 9.3%.

The working area of Makasar Subdistrict Primary Health Center is located in the administrative region of East Jakarta City and consists of six auxiliary health centers (*Puskesmas Pembantu/Pustu*), namely Makasar, Pinang Ranti, Kebon Pala, Cipinang Melayu, and Halim Perdana Kusuma I and II. According to the Nutrition Annual Report of Makasar Subdistrict Primary Health Center for the period 2021–2024, based on e-PPGBM data from August 2024, the incidence of wasting (weight-for-height) tended to increase from 0.4% to 0.7%, with the highest prevalence found in Pustu Makasar, Pustu Kebon Pala, and Pustu Pinang Ranti. The selection of children aged 24–59 months as the study population was based on the observation that nutritional problems among children in the Makasar Subdistrict Primary Health Center area predominantly occurred within this age range.

Both internal and external factors may influence the nutritional status of children under five. Internal factors include age, infectious conditions, sex, and dietary intake, while external factors include family income, education, knowledge, parental occupation, family size, and

food consumption patterns⁽⁴⁾. Family economic conditions are closely associated with the nutritional status of children. The occupations of both parents determine household income, which in turn affects family nutritional status. Working mothers tend to have less time to care for their children compared to non-working mothers. Conversely, non-working mothers often face lower economic conditions, which may limit their ability to provide adequate food and nutrition for their children⁽⁵⁾.

Maternal employment also contributes significantly to child nutritional status. Employed mothers generally have better access to economic resources, enabling them to purchase more nutritious foods and meet their children's nutritional needs. Stable and well-paying employment is often associated with improved access to healthcare services and education, which collectively contribute to overall child health. However, time- and attention-demanding jobs may reduce the amount of time mothers spend caring for and nurturing their children, potentially affecting parenting practices and the nutritional status of children under five⁽⁶⁾.

B. METHODS

This study employed a cross-sectional research design in which maternal employment status and the nutritional status of children aged 24–59 months were assessed at a single point in time. Data collection was conducted from April to May 2025. The study was carried out in the working area of the Makasar Subdistrict Primary Health Center, East Jakarta, Indonesia.

The sample size was calculated using the Slovin formula, resulting in a total of 110 mother child pairs aged 24–59 months. Participants were selected using a simple random sampling technique. The inclusion criteria were mothers who were willing to participate in the study by completing an informed consent form, and children aged 24–59 months who attended weighing sessions at *Posyandu* and resided within the working area of the Makasar Subdistrict Primary Health Center. The exclusion criteria were children who were experiencing illness at the time of data collection, such as diarrhea, cough, runny nose, or fever.

C. RESULT AND DISCUSSION

1. Description of Respondent Characteristics

Data collection was conducted from 3 to 20 November 2025. A total of 110 mother–child pairs who met the study inclusion criteria participated in this research. The study subjects were mothers with children aged 24–59 months who resided in the working area of the Makasar Subdistrict Primary Health Center. Data were collected using a structured questionnaire.

Table 1. Frequency Distribution of Respondent Characteristics

Characteristics	N	%
Sex		
Male	49	44,5
Female	61	55,5
Child Age		
24 – 47 months	68	61,8
48 – 59 months	42	38,2
Maternal Age		
20 – 35 years	83	75,5
> 35 years	27	24,5
Maternal Employment Status		
Employed	30	27,3
Unemployed	80	72,7

(Source: Primary data, 2025)

Based on Table 1, the majority of child respondents were female, with 61 children (55.5%), while 49 children (44.5%) were male. Regarding child age categories, most children were aged 24–47 months, accounting for 68 children (61.8%), and the remaining 42 children (38.2%) were aged 48–59 months.

According to maternal age categories, 83 mothers (75.5%) were aged 20–35 years, while 27 mothers (24.5%) were aged over 35 years. With respect to maternal employment status, out of 110 respondents, the majority of mothers were unemployed, totaling 80 mothers (72.7%), whereas 30 mothers (27.3%) were employed.

2. Association Between Maternal Employment Status and Child Nutritional Status

Based on the study conducted, the following results were obtained:

Table 2. Association Between Maternal Employment Status and Child Nutritional Status

Maternal Employment Status	Child Nutritional Status						Total	P Value
	Severely Underweight	Underweight	Normal	At Risk of Overnutrition	Overweight	Obesity		
Employed	0	1	19	4	0	6	30	0,229
Unemployed	1	4	60	5	4	6	80	
Total	1	5	79	9	4	12	110	

(Source: Primary data, 2025)

Based on Table 2, among employed mothers, 19 children (17.3%) had a normal nutritional status, 6 children (5.5%) were classified as obese, 4 children (3.6%) were at risk of overnutrition, and 1 child (0.9%) was underweight. Among unemployed mothers, 60 children (54.5%) had a normal nutritional status, 6 children (5.5%) were obese, 5 children (4.5%) were at risk of overnutrition, while 4 children (3.6%) were classified as overweight and underweight, respectively, and 1 child (0.9%) was severely underweight. The statistical test results presented

in the table showed a p-value of 0.229, indicating that $p > 0.05$, which means there was no statistically significant association.

The association between maternal employment status and child nutritional status was analyzed using the Chi-square test, which yielded a p-value of 0.229. This result indicates that there was no significant association between maternal employment status and the nutritional status of children aged 24–59 months in the working area of the Makasar Subdistrict Primary Health Center, East Jakarta.

The findings of this study are consistent with those reported by Fitriyani Bahriyah (2024), who found no significant relationship between maternal employment and the nutritional status of children under five in a study conducted in Sukajadi Village. These findings suggest that working mothers tend to have adequate knowledge regarding child nutrition. Moreover, employed mothers often have access to a wide range of information related to child nutrition, which can be communicated to caregivers at home. Therefore, maternal employment status does not directly affect a mother's ability to care for her child.

Based on Table 2, some employed mothers had children who were classified as obese (6 children; 5.5%), at risk of overnutrition (4 children; 3.6%), and underweight (1 child; 0.9%). This finding aligns with the study conducted by Nenes Riana Fauzia et al. (2019), which reported that working mothers often have limited time to accompany and care for their children, potentially leading to nutritional problems. Differences in research findings may be influenced by other factors not examined in this study, such as household income, type of maternal employment, and support from other family members in childcare⁽⁷⁾.

Similarly, among unemployed mothers, some children were found to be underweight (4 children; 3.6%) and severely underweight (1 child; 0.9%). This condition may be attributed to the strong relationship between child nutritional status and economic factors⁽⁸⁾. Household economic conditions depend on the employment status of both parents, which is closely related to family income. While working mothers may have less time for childcare, unemployed mothers may experience lower economic capacity, limiting access to nutritious food and adequate dietary intake for their children⁽⁹⁾.

Furthermore, a study conducted by Sofa Fatonah et al. (2023) showed that, based on interviews and time-use assessments of mother–child interaction, non-working mothers spent more time observing and caring for their children. In contrast, working mothers often left their children for more than six hours per day, which negatively affected the quality of mother–child interaction⁽¹⁰⁾. Of six working mothers observed in the study, five left their children for more than six hours and had children with abnormal nutritional status, while one self-employed

mother did not leave her child for extended periods, and the child had a normal nutritional status⁽¹¹⁾.

The results of this study are also consistent with research conducted by Luh Putu Sri Yogi et al. (2017), which reported no association between maternal employment and child nutritional status ($\alpha = 0.891$)⁽¹²⁾. The impact of a mother's employment on the mother-child relationship is largely influenced by the child's age at the time the mother begins working. If employment begins before the child develops a strong emotional attachment, the impact tends to be minimal⁽¹³⁾. However, if a positive attachment has already been established, reduced maternal presence may affect the child unless adequate substitute caregivers are available individuals who are trusted by the child and provide consistent and nurturing care. According to Aboulenin (2023)⁽¹⁴⁾, the effects of maternal employment on child attachment are strongly influenced by the child's age when the mother starts working. If employment begins before a secure relationship has developed, the child may feel neglected and receive insufficient attention⁽¹⁵⁾.

D. CONCLUSION

Based on the characteristics of the child respondents, 61 children (55.5%) were female and 49 children (44.5%) were male. Regarding child age categories, 68 children (61.8%) were aged 24–47 months, while 42 children (38.2%) were aged 48–59 months. Based on maternal age categories, 83 mothers (75.5%) were aged 20–35 years, and 27 mothers (24.5%) were aged over 35 years.

In terms of maternal employment status, out of a total of 110 respondents, the majority of mothers were unemployed (80 mothers; 72.7%), while 30 mothers (27.3%) were employed. The results of the statistical analysis showed no significant association between maternal employment status and the nutritional status of children aged 24–59 months (p -value = 0.229).

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