



Research Article

Mothers' Knowledge of Infant Health and Nutritional Status: A Case Study

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DOI: 10.33086/mtphj.v9i2.7013

Article History:

Received, February 28th, 2025

Revised, April 23th, 2025

Accepted, May 05th, 2025

Available Online: September 1st, 2025

Please cite this article as:

Sybil, Amirah Dyandra, et al., "Mothers' Knowledge of Infant Health and Nutritional Status: A Case Study" Register: Medical Technology and Public Health Journal, Vol. 9, No. 2, pp. 203-209, 2025

ABSTRACT

The increasing incidence of stunting in Indonesia is concerning, highlighting the urgent need to reduce its prevalence. This study evaluated maternal knowledge regarding eating and parenting habits and the nutritional status of infants aged 0-59 months. Conducted in March 2024 at the Posyandu RW 07 in Wonokromo Village, Surabaya City, the study involved a sample size of 97 out of a total population of 145. This descriptive study employed a survey approach, targeting mothers attending the Posyandu in RW 07. The results indicated that the nutritional status of toddlers aged 0-59 months was generally within a healthy range. Mothers also demonstrated a commendable level of knowledge in child-rearing and food provision. Based on weight-for-age measurements, 75 infants were classified as having a normal nutritional status, consisting of 45 males and 30 females, representing 77.32% of the sample. Similarly, height-for-age assessments showed that 77 infants fell into the normal range, with 49 males and 28 females, accounting for 79.38%. Furthermore, maternal knowledge regarding feeding habits in RW 07 was notably high, with 100% of mothers exhibiting good feeding practices. Likewise, 100% of mothers demonstrated sound parenting practices, indicating that all mothers in this study have implemented effective parenting habits

Keywords: Balanced nutrition, Eating Patterns, Growth and Development, Parenting Patterns

INTRODUCTION

The issue of malnutrition and inadequate nutrition in infants can significantly affect their physical growth and overall health. This impact includes the risk of nutrient deficiencies, which can lead to long-term consequences for children's health, development, disease resistance, and cognitive abilities (Rachmawati, 2014). Addressing this nutritional challenge requires collective effort, and families must actively participate in improving the nutritional status of their infants (Masruroh *et al.*, 2022).

Infants, particularly those aged 0-4 years, are in a vulnerable nutritional group as this developmental stage is crucial for their growth and will influence their future development (Harahap *et al.*, 2018). Consequently, nutritional issues must be recognized as a shared responsibility, necessitating tangible actions to ensure children grow healthy (Sri, 2019). This intervention includes enhancing maternal knowledge regarding proper nutritional intake, implementing suitable parenting



practices, providing appropriate care when children fall ill, and improving family income levels to meet children's nutritional needs (Ayun, 2017).

Moreover, health workers play a vital role in educating families about the significance of proper nutrition for children, particularly toddlers. A better understanding of these factors will facilitate more effective prevention strategies against malnutrition in this age group (Sahidun & Abdullah, 2020). These initiatives aim to enhance children's nutritional status and avert deficiencies, and they have been implemented as part of broader efforts to tackle malnutrition in toddlers (Yuwanti *et al.*, 2021). All these actions demonstrate the government's commitment to improving children's nutritional status and fostering a healthier future generation (Sasmita, 2021).

This research, conducted in March 2024 at the Posyandu RW 07 in Wonokromo Village, Surabaya City, included a sample size of 97 out of a total population of 145. The objectives of the study were:

- 1) To identify the nutritional status of infants aged 0-59 months at Posyandu RW 07, Wonokromo Village, Surabaya City
- 2) To assess mothers' knowledge regarding feeding practices for infants aged 0-59 months at Posyandu RW 07, Wonokromo Village, Surabaya City.
- 3) To evaluate mothers' knowledge about parenting practices for infants aged 0-59 months at Posyandu RW 07, Wonokromo Village, Surabaya City.

MATERIAL AND METHODS

This research is classified as descriptive, aimed at providing a comprehensive overview of a specific population. It employs a survey methodology to systematically gather data about mothers with infants and young children, specifically those aged between 0 and 59 months. The study focuses on participants residing in Posyandu RW 07, which is situated in the Wonokromo Village community in Surabaya City, Indonesia.

Data collection for this study was meticulously conducted in March 2024, allowing for a timely and relevant examination of the target population. The structured surveys were administered on-site to ensure that the responses were accurate and reflective of the current circumstances faced by the participants. 97 mothers volunteered to participate in the survey, carefully selected from a broader population of 145 individuals living in Wonokromo Village. This selection process was designed to ensure a diverse representation of experiences and perspectives among the mothers.

To facilitate efficient data collection, the survey was expertly crafted and distributed using Google Forms, a platform that allows for streamlined responses and easy data aggregation. This digital approach increased the response rate and made it easier to manage and analyze the collected data. Once the data was gathered, a thorough analytical process was performed. It was processed descriptively, meaning that the results were organized and presented to highlight key trends and relationships within the data.

RESULTS AND DISCUSSION

Table 1 illustrates the distribution of maternal age among participants, revealing that the predominant age group is 31-35 years, with 32 mothers constituting 32.9% of the sample. The age group of 22-25 years follows with 28 mothers, representing 28.86%. Mothers aged 26-30 constitute 19 individuals, accounting for 19.59%, while those under 22 years total 18, with a percentage of 18.56%. Notably, no mothers are in the age group of 36-40 years or above 40 years.

Examining family income characteristics at Posyandu RW 07 in Wonokromo Village, Surabaya City, it is evident that the largest segment of families, numbering 50 individuals, earn less than the minimum wage (UMR), representing 51.55% of the sample. In contrast, 47 families report

incomes exceeding the minimum wage of 48.45%. There are no families whose income is equal to the minimum wage.. When assessing the number of children, the data indicates that the mode is one child, with 36 participants (37.11%). This finding is closely followed by families with two children, totaling 35 individuals (36.08%), while families with more than two children comprise 26 participants (26.81%). Finally, the characteristics of the sample concerning participation in the Family Planning Program will be detailed subsequently for further insights into reproductive health dynamics in this community. The assessment of infant nutritional status at Posyandu RW 07 in Wonokromo Village, Surabaya City, reveals distinct patterns based on gender and age demographics. Specifically, the analysis indicates that out of the infants evaluated, 62 (63.92%) are male and 35 (36.08%) are female.

Table 1. Characteristics of the Respondent

Mother's Age (Years)	Percentage (%)
<22	18,56
22-25	28,86
26-30	19,59
31-35	32,9
36-40	0
>40	0
Family Income	
<UMR	51,55
Same like UMR	0
>UMR	48,45
Number of children	
One	37,11
Two	36,08
More Than Two	26,81
Family Planning Program	
Yes	79,38
No	18,56
Sometimes	2,06
Gender	
Boy	63,92
Girl	36,08
Age (month)	
0-6	14,43
6 -12	8,25
13-24	21,65
25-36	24,74
37-48	14,43
49-59	16,5

When examining age-related nutritional status, the data show that the 25-36-month age cohort is the most represented, with 24 infants (24.74%). This finding is followed by the 13-24 month group (21 infants, 21.65%), the 49-59 month group (16 infants, 16.50%), and both the 0-6 month and 37-48 month groups, each comprising 14 infants (14.43%). The least represented group is the 7-12-month cohort, with only 8 infants (8.25%).

Evaluating the weight-for-age classifications, the findings indicate that 75 infants fall within the normal weight range, comprised of 45 males and 30 females, which accounts for 77.32% of the total subjects. Overweight infants numbered 15, with 11 males and 4 females, representing 15.46%. There are 5 underweight infants (4 males, 1 female), constituting 5.15%, and 2 infants classified as very underweight, both male, making up 2.06% of the population studied. Further analysis on height-for-age nutritional status is pending, but it is critical for a comprehensive evaluation of overall infant health and growth patterns within this demographic.

Table 2. Distribution of Infant Nutritional Status by Weight and Height per Age (Height/Age)

Weight per Age	Percentage (%)	
	L	P
Very less <-3SD	2,06	0
Less -3SD Until -2SD	4,12	1,03
Normal -2SD Until +1SD	46,39	30,93
More >+1SD	11,34	4,12
Height per Age	Percentage (%)	
	L	P
Very less <-3SD	2,06	3,09
Less -3SD Until -2SD	5,15	0
Normal -2SD Until +1SD	50,52	28,87
More >+1SD	6,19	4,12
Total	100	

Table 3 presents the nutritional status of infants stratified by height-for-age metrics. A significant proportion, specifically 77 infants, fall within the normal height-for-age range, comprising 49 males and 28 females, constituting 79.38% of the study population. There are 10 infants classified as overweight, consisting of 6 males and 4 females, corresponding to 10.31% of the sample. Additionally, 5 infants are identified as underweight, all male, accounting for 5.15%. Furthermore, 5 infants are classified as underweight, with a distribution of 2 males and 3 females, representing 5.15%. Table 5 provides insights into the demographic composition at Posyandu RW 07 in Wonokromo Village, Surabaya City, where male infants predominate, numbering 62, or 63.92% of the total infant population. Table 6 indicates that the predominant age demographic is the 25-36-month group, which includes 24 infants, equating to 24.74% of the sample. Regarding nutritional status assessed by weight-for-age standards, Table 7 reveals that 75 infants fall within the standard category—comprising 45 males and 30 females—reflecting a prevalence of 77.32%. This finding is consistent with the findings in Table 8, which again highlights the normal category as the predominant classification under height-for-age assessment, encompassing 77 infants (49 males and 28 females), amounting to 79.38%.

The findings from the questionnaire distributed to mothers at Posyandu RW 07 in the Wonokromo sub-district of Surabaya reveal that maternal knowledge concerning feeding practices is exceptionally high, with a complete 100% of respondents demonstrating effective feeding behaviors. As highlighted by Septiawati *et al.* (2021), infant feeding is multifaceted and plays a crucial role in the psychological development of infants, particularly in establishing healthy eating patterns. These feeding habits are fundamental as they bear long-term consequences on children's health and nutritional status. Following the recommendations of Yanti *et al.*, (2020), the introduction

of complementary foods should commence at six months of age. It is imperative to ensure that infants receive a well-balanced diet that fulfills their energy, protein, and micronutrient requirements. Moreover, feeding practices should be responsive and accompanied by psychosocial support to foster a positive mealtime environment. In instances of food refusal, mothers must refrain from coercing the child, as this can lead to aversions towards food and hinder the child's interest in eating. Therefore, maternal patience and responsiveness during feeding are vital components of fostering healthy eating behaviors in infants.

Table 3. Distribution of Mothers' Knowledge about Parenting Habits

Score	n	Percentage (%)
0-10 (Low)	0	0
11-30 (High)	97	100
Total	97	100

Table 9 indicates a high level of maternal awareness regarding optimal parenting practices, with all surveyed mothers demonstrating knowledge of appropriate infant feeding protocols. Similarly, the data reveal that 100% of mothers have adopted effective parenting strategies. Herman et al 2016 reported that maternal knowledge concerning immunization within this population is generally satisfactory. Nonetheless, many mothers are not fully cognizant of the critical role immunization plays in preventing pediatric diseases (Adhimah, 2020).

Moreover, most mothers correctly recognize the necessity of monthly weight checks for toddlers to assess developmental progress. When asked about their response to illness in toddlers, the predominant trend among mothers is to seek medical attention from health centers, which aligns with established health guidelines. However, one respondent indicated a reliance on compresses with cold or warm water as a sufficient treatment for minor ailments, which suggests gaps in health care understanding (Mashar *et al.*, 2021).

Immunization, conferring immunity against specific pathogens, is essential for protective health measures. The etymology of 'immunization' derives from 'immun,' signifying resistance, and serves as a proactive approach to disease prevention by enhancing the immune response through vaccination (Yanti, Betriana & I. R. Kartika, 2020).

CONCLUSION AND SUGGESTION

The nutritional assessment of children aged 0-59 months at Posyandu RW 07 in Wonokromo Village, Surabaya City, indicates a predominance of normal weight-for-age status among the population, with 75 infants classified as such, comprising 45 male and 30 female participants, translating to a prevalence of 77.32%. Regarding height-for-age, 77 infants were found to be within normal limits, including 49 males and 28 females, corresponding to a proportion of 79.38%. Regarding maternal awareness, the knowledge related to feeding practices among mothers at the same Posyandu is notably high, with 100% demonstrating effective and appropriate feeding behaviors. Similarly, understanding parenting methodologies is also excellent, as evidenced by all mothers adhering to sound parenting practices.

ACKNOWLEDGEMENT

Thanks to Surabaya Islamic Hospital and Dr. Djazuly Chalidyanto, S.KM., M.ARS, so that this article can be completed.

CONFLICT OF INTEREST

There is no conflict of interest in carrying out this research.

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