

The Relationship Between Mother Knowledge About Complementary Feeding To Toddler's Nutritional Status In Playground And Kindergarten At Ketindan Village Lawang District Malang Regency

Julius A.S.¹, Laurentius A.¹, and Lilik D.²

¹Medical Students, Faculty of Medicine, Universitas Airlangga

²Department of Health Community and Preventive Medicine, Faculty of Medicine, Universitas Airlangga

Abstract

Introduction: Nutritional status is the reflection of daily nutrient intake. Determinants affecting nutritional status are adequate dietary intake, sanitation, clean water, infectious diseases, food availability, breastfeeding, supplementary feeding, mother's knowledge and parenting. Incorrect complementary feeding can cause nutritional problems in children.

Method: This research is an observational analytic study with cross sectional method. Research sample involved 39 pairs of mother and toddler. Primary data were obtained from complementary feeding questionnaires to mothers and measurement of nutritional status of toddler using weight and height measurement. The research data were processed by statistics at 5% significance level and 95% confidence interval through SPSS 23.0.0 for Windows edition 64 bit, 2015, SPSS Inc. Chicago, IL, USA and Microsoft Office 2016. The results of the research data tested with chi square method, due to the unfulfilled expected value, the Fischer test is used.

Result: Research showed mothers knowledge about complementary feeding majority is good (74,4%), majority of toddlers in playground and kindergarten have good nutrition status (82,1%). Fisher exact test gave $p > 0.05$ ($p = 0,242$ (CI = 95%; PR 2.679 (0.482-14.893))) in determining relation between mother knowledge about complementary feeding with nutritional status of toddler at playground and kindergarten in Ketindan Village, Lawang District, Malang Regency.

Conclusion: There is no relation between mother's knowledge about complementary feeding to nutritional status of toddler at playground and kindergarten in Ketindan Village, Lawang District, Malang Regency ($p = 0,242$ (CI = 95%; PR 2.679 (0.482-14.893))).

Keyword: Nutritional Status, Toddler, Complementary Feeding, Mothers' Knowledge

Introduction

These The case of malnutrition in children in Indonesia is still high. In 2013, Riskesdas recorded the prevalence of malnutrition at 5.7% and malnutrition at 13.9%. This figure increased by 1.7% compared to 2010. Nutritional status can be measured by various methods, one of which is the anthropometric method whose index uses body weight according to age (W/W). There are several determinants of nutritional status, including the availability of clean water, environmental sanitation, food availability, infectious diseases that have been suffered by children, parenting patterns, and mother's knowledge about complementary feeding. Mother's knowledge about MP-ASI was chosen as the determinant under study because the level of

education of mothers in Ketindan Village, Lawang District, Malang Regency is still low. Research conducted by Olatona in 2017 regarding the knowledge and application of complementary feeding and PMT to children under five in Lagos, Nigeria stated that the mother's education level and mother's occupation affect the application of complementary feeding. [1][2]

Therefore, researchers are interested in studying the relationship between mother's knowledge of complementary feeding on the nutritional status of toddlers in PAUD and TK Ketindan Village, Lawang District, Malang Regency.

Methods

The researcher conducted an observational analytic study that aims to analyze the relationship between mother's knowledge of complementary foods for breast milk (MP-ASI) on the nutritional status of children under five years old (toddlers) in Ketindan village, Lawang district, Malang district.

The design used is cross sectional using primary data through a questionnaire filled in by the mother and direct measurements of the child's weight and height.

The sample in this study was a mother and child pair under five years old (toddlers) who attended Early Childhood Education (PAUD) and Kindergarten (TK) in Ketindan Village with the following criteria:

- Inclusion Criteria: A pair of mothers and toddlers who live in Ketindan Village, Lawang District, Malang Regency.
- Exclusion Criteria: Couples of mothers and toddlers who are not domiciled in Ketindan Village, Lawang District, Malang Regency

Data collection was carried out on July 25, 2018 for all PAUD and TK in Ketindan Village. Samples were taken by accidental sampling on all pairs of mothers and toddlers who came to PAUD and TK on that date.

After the data is tabulated, statistical analysis is carried out. On the univariate baseline data, normality tests were carried out and descriptive elaboration: maternal age, toddler age, number of family members, toddler's weight, height, head circumference, and number of children in one family. While the bivariate data on the relationship between knowledge of complementary feeding in mothers and the nutritional status of children under five, a Chi-Square/Fischer's Exact Test statistical analysis was performed (if the Chi-Square requirements were not met).

The ethics of this research have been obtained from the Ethics Committee of the Faculty of Medicine, Airlangga University, Surabaya.

Results

There were 39 respondents of mother and child pairs who were included in the inclusion criteria and the data could be used. The characteristics of all respondents are tabulated in Table 1. The median is used as an alternative to the mean because the data distribution is not normal based on the Saphiro-Wilk Normality Test except for height and head circumference.

Table 1. Sample characteristics

Characteristics	n	median	Range (min-max)
Mother's age(years)	39	30	26 (22-48)
Toddler's age (months)	39	54	31 (28-59)
Family number (person)	39	4	6 (3-9)
Weight (kg)	39	15	11 (11-22)
Height (cm)	39	103	29.5 (89.5-119)
Head circumference (cm)	39	49	6.5 (46.5-53)
Number of children (person)	39	2	7 (1-8)

Some other data that are also tabulated are as follows: (1) maternal education where it was found that most of the respondents' mothers had high school education (n = 22, 56%) and junior high school graduates (n = 9, 23%), elementary school graduates (n = 7, 18%), and, the least, university graduates (n= 1.3%), (2) the occupation of the mother who became the respondent was housewife (n=34, 87%), private employee (n= 3, 8 %), and self-employed (n= 2, 5%), (3) have received information on complementary feeding or not: 90% (n= 35) stated that they had received information about complementary feeding while 10% (n= 4) stated that they had never received information on complementary feeding, (4) among those who had received information about complementary feeding, it was found that 57% (n= 20) of them received information from posyandu, 20% (n= 7) from health workers, 14% (n= 5) from mass media, and 9% (n= 3) from friends and family, (5) distribution of nutritional status of children under five as described in chart 2, and (6) Mother's knowledge of complementary feeding as described in chart 3. In the analysis of the relationship between mother's knowledge of complementary feeding and the nutritional status of toddlers, a Chi-Square test was conducted.

It was found that the expected value less than 5 is 2 of 4 columns (50%) so that the conditions for using Chi-Square are not met and the use of Chi-Square is not allowed. For statistical test tables 2x2 tables that do not meet the Chi square requirements, the recommended analysis is Fisher's exact test. The significance value is 0.344 for two directions and 0.242 for one direction. The researcher uses a value of 0.242 because this research has a one-way hypothesis. Because $p > 0.05$, statistically there is no relationship between knowledge of mother's complementary feeding and nutritional status of children under five.

Discussions

The confounding variables in this study were maternal employment status, birth weight of toddlers, history of breastfeeding, history of supplementary feeding (PMT), sanitation, sources of clean water for daily needs, history of infectious diseases, food availability, child care patterns. and nutritional intake of children's food. Because the research sample comes from the same population and environment, it is expected that the confounding variables are not significant to the research conducted and are considered homogeneous for the entire research sample.

The results of the research on respondents' knowledge of mothers' knowledge of MP-ASI showed that only 74.4% (n=29) mothers had good knowledge of MP-ASI. This is in line with Prihatini's research in 2014 which stated that in Sukoharjo, 68.3% of mothers under five had good knowledge of complementary feeding.[3]

Knowledge of complementary foods for breast milk itself has several aspects such as the mother's current age, the mother's latest education, the mother's current occupation, whether the

mother has previously given complementary foods for breast milk (MP-ASI) to infants aged less than 6 months, has the mother ever receive information about Complementary Foods for Mother's Milk (MP-ASI). [4]

In this study, from 39 samples, the highest distribution was normal nutrition as many as 32 toddlers (82.1%), undernutrition as many as 6 toddlers (15.4%), over nutrition as many as 1 toddler (2.6%) and there were no children under five. with poor nutrition. So the percentage of malnutrition (malnutrition + malnutrition) in the toddler group is 15.4%). [4]

From 39 samples, there were 13 under-fives with good nutrition and 5 under-fives with poor nutrition (less nutrition + over-nutrition) who had been given complementary feeding before the age of 6 months. While toddlers with good nutrition are 19 toddlers and 2 toddlers with bad nutrition in toddlers who have just been given MP-ASI after 6 months. The results of the study are in accordance with research by Lestari et al. 2015, namely children who were given MP-ASI at the age of 6 months had a better nutritional status than children who had been given early MP-ASI. [5]

Mother's knowledge about good nutrition will affect the mother's way of thinking in providing good nutritional intake so that children have good nutritional status. However, Notoadmojo (2003)'s opinion is different from the results of this study. The results showed that not all mothers who have good knowledge about complementary feeding will have toddlers with good nutritional status. In this study, the results of statistical tests showed p value = 0.242 (CI = 95%; PR 2.679 (0.482-14.893)) so that there was no relationship between mother's knowledge of complementary feeding on nutritional status of toddlers in PAUD and TK Ketindan Village, Lawang District, Malang Regency. [6]

There are other factors that can directly affect the nutritional status of children, namely eating patterns (unbalanced diet) and infectious diseases according to research by Gustiva et al (2014) in the Nanggalo Padang Health Center Work Area, it was found that 68% of children with a good diet had nutritional status. normal, and 11% of children with poor diets are underweight⁷. Children who get good food but are often sick with diarrhea, fever, or other illnesses can suffer from malnutrition. [7]

In this study, there were several respondents who knew that the feeding pattern for toddlers aged 0-6 months was only breast milk, but still they could not give only breast milk until the age of 6 months and gave additional food to toddlers at the age of < 6 months. This is in line with research conducted by Marelda (2014) in Parit Baru Village, Kuburaya Regency. [8]

Conclusion

There is no correlation between mother's knowledge about complementary feeding and nutritional status of toddlers in PAUD and TK Ketindan Village, Lawang District, Malang Regency ($p=0.242$ (CI = 95%; PR 2.679 (0.482-14.893)) .

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