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## Factors Affecting Mother Behavior in Complementary Feeding Stunting Age 6-24 Months in Sidoarjo Regency

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### ABSTRACT

Stunting is a growth disorder, which is often encountered in children less than 24 months. The prevalence of under-five stunting in East Java in 2016 was 26.1% and the prevalence of under-five stunting in Sidoarjo Regency in 2016 was 21.9%. Stunting events at 6-24 months are associated with many factors. The purpose of this study was to analyze the factors that influence the behavior of mothers in the feeding practice in the Health Office of Sidoarjo Regency. The type of this research was observational analytic with cross sectional study design. The subjects of the study were 158 mothers with stunting children aged 6-24 months. Selection of research subjects using probability sampling technique. The status of stunting was measured by body length according to age. Based on the result of Binary Logistic Regression, it is obtained that there was influence of self efficacy on expected outcome with  $p$ -value = 0.0001 and there was influence of self efficacy on intention with significant  $p$  = 0.021.

**Keywords:** Complementary feeding, Stunting, Self efficacy, Outcome expectancies, Intention

### INTRODUCTION

#### Background

Target of decreasing stunting prevalence in children under 2 years is 28%. Maternal and child health issues are calculated from the first day of pregnancy, the baby birth up to 2 years, there is one period is the first 1000 days of human life, which is 270 days during pregnancy and 730 days in the first life of the baby being born<sup>(1)</sup>.

Health research in 2007 (36.8%), 2010 (35.6%), and 2013 (37.2%) showed that there was not much change in stunting prevalence, in 2010 and 2013 an increase of 1,6%<sup>(2)</sup>. The result of Nutrition Status Monitoring Survey of East Java Province Health Office in 2015 was 27,1% and 26,1% in 2016. The stunting prevalence were decrease 1% when compared to 2015, however stunting problems are still large in East Java and require attention from various parties to address them<sup>(3)</sup>. That the decline in stunting in the first 1000 days of life is now one of the indicators of health development. The most efficient effort in improving human quality in the future is preventing malnutrition by socializing proper feeding practices in the first 1,000 days of evidence-based life<sup>(4)</sup>.

Provision of supplementary feeding before the age of 4 months is a risk of failure to grow during childhood and is a risk factor failure to thrive. The pattern of parenting factors is closely related to the growth and development of children under five. Children aged 12-59 months are still dependent on their mother's care, a time when children still need adequate food and nutritional intake. Low nutrient intake is influenced by the pattern of care, one of which is inappropriate feeding behavior and influenced by mother's nutritional knowledge. Also affected by individual factors, environmental factors and parental behaviors in caring for their children<sup>(5)</sup>.

Individual factors related to self-care hygiene patterns include mother's behavior home hygiene, food hygiene, and personal hygiene<sup>(6)</sup>. Provision of nutrients without regard to hygiene will increase the risk of infants having infections such as diarrhea. Health and environmental factors will affect nutritional status<sup>(7)</sup>. Successful growth of children under five depends on the environment. The social environment is very helpful as people around the child, family environment, home, neighbors, schools and teachers, as well as friends. Stimulation of the social environment plays a role in the development of children optimally. The family is the most important part of the child's social life<sup>(8)</sup>.

The purpose of research is to analyze the factors that influence the behavior of mothers in the feeding of stunting children aged 6-24 months in Sidoarjo District. Parental attitudes relate to parenting patterns, such as attitudes and behaviors of the mother in terms of proximity to the child, feeding, caring (including immunization, medication), giving affection etc. Children get better attention both physically and emotionally his nutrition is better than his peers get less attention<sup>(9)</sup>. The three factors mentioned above (individual, environment, and behavior) are also influenced by the self efficacy of the mother. High self efficacy will affect the mother's intention in feeding her child. High intentions are also influenced by physical, social, self-evaluation and supportive and inhibiting factors in feeding activities in children<sup>(10)</sup>.

## METHODS

The type of this research was observational analytic with cross sectional design. The research was conducted in 3 Community Health Center (Jabon, Porong and Tanggulangin), Sidoarjo Regency. The population were mothers with stunting children aged 6-24 months. The sample of this research were some of mothers have children aged 6-24 months. Sample size were 158 people, selection by probability sampling technique. To determine the status of stunting in children, age-based measurements were taken randomly regardless of gender to determine the children sampled in the study. The highest stunting sample was male gender (51.9%). The inclusion criteria of the sample were: age 6-24 months, has no congenital diseases, no leg defects and nutritional status stunting.

Data were collected through interview using questionnaires and other instruments; body measuring instrument (infantometer), seca scales, food frequency question, food photo book, leaflet complementary feeding. The research was approved by the ethics committee the Faculty of Public Health, Airlangga University, Indonesia, and all participants have been given written informed consent. Analysis of nutritional status using WHO Anthro 2005 software. Data of statistical test result presented in table form accompanied by narration. The hypothesis was tested by using Logistic Regression.

## RESULTS

Most respondents age between 31-40 years included in the category of young adults. Most respondent's education included in high education. The occupation of most respondents was households. Family members who ate in one house more than 4 people were 98 respondents. The sex of most children was male.

Table 1. Characteristics of stunting children in Sidoarjo Regency Year 2017

| Variables              | Frequency | Percentage |
|------------------------|-----------|------------|
| Age;                   |           |            |
| 6 - 8 months           | 27        | 17.08      |
| 9 - 11 months          | 19        | 12.02      |
| 12 - 24 months         | 112       | 70.88      |
| Gender;                |           |            |
| Male                   | 82        | 51.89      |
| Female                 | 76        | 48.1       |
| Status;                |           |            |
| Short Nutritional      | 119       | 75.3       |
| Very Short Nutritional | 39        | 24.68      |

Table 2. Type of Foods Consumed by Children Stunting in Sidoarjo Regency 2017

| Type of Food  | Frequency | Percentage |
|---|-----------|------------|
| Staple Food / Manufacturing                                 | 25        | 15.8       |
| Staple food + Vegetable / fruit                             | 11        | 7          |
| Staple food + Veggie side dish                              | 5         | 3.2        |
| Staple food + Veggie side dish + Vegetable / fruit          | 11        | 7          |
| Staple food + Animal side dish                              | 4         | 2.5        |
| Staple food + Animal side + Vegetable / fruit               | 12        | 7.6        |
| Staple food + Animal side + Veggie side dish                | 9         | 5.7        |
| Staple food + Animal side + Veggie side + Fruit / Vegetable | 28        | 17.7       |
| Staple food + Animal side + Veggie side + Fruit + Vegetable | 53        | 33.5       |
| Total   | 158       | 100        |

The results of data processing in table 2 describes the composition of the type of food consumed by the respondent's children every day the largest percentage consisting of staple food, animal side dishes, vegetable side dishes, vegetable and fruit side of 33.5%.

Table 3. Distribution of Child Food Stunting Age 6-24 months in Sidoarjo Regency Year 2017

| Age          | Food Forms Given Children |      |                      |      |             |      | Total |     |
|--------------|---------------------------|------|----------------------|------|-------------|------|-------|-----|
|              | Soft Slurry               |      | Crushed/<br>Filtered |      | Family Food |      |       |     |
|              | n                         | %    | n                    | %    | n           | %    | n     | %   |
| 6-8 months   | 19                        | 70.4 | 8                    | 29.6 | 0           | 0.0  | 27    | 100 |
| 9-11 months  | 2                         | 10.5 | 16                   | 84.2 | 1           | 5.3  | 19    | 100 |
| 12-24 months | 1                         | 0.9  | 1                    | 0.9  | 110         | 98.2 | 112   | 100 |
| Total        | 22                        | 13.9 | 25                   | 15.8 | 111         | 70.3 | 158   | 100 |

Table 4 shows the results of Logistic Regression test.

Table 4. Summary of Test Results Regression Logistic Binary

| Independent variable     | Dependent variable       | Coefficient | p-value |
|--------------------------|--------------------------|-------------|---------|
| Self efficacy            | Outcome Expectancies     | -1.284      | 0.0001  |
|                          | Intention                | -0.844      | 0.021   |
|                          | Socio Structural Factors | -0.207      | 0.522   |
|                          | Behavior                 | -0.063      | 0.846   |
| Outcome Expectancies     | Intention                | -0.582      | 0.110   |
| Socio Structural Factors | Intention                | 0.052       | 0.884   |
| Intention                | Behavior                 | 0.127       | 0.727   |

## DISCUSSION

There was influence of self efficacy on outcome expectencies and the influence of self efficacy on intention in complementary feeding of stunting. Higher education were not guarantee that mothers can provide nutritious and balanced meals on the contrary, maternal factors, intentions and mother's ignorance about nutritious food have contributed to the quality of daily child food consumption as well as large family members causing smaller food expenditure allocations. This research result were according to social cognitif theory<sup>(10)</sup>, that the setting of the intention was influenced by self efficacy because self efficacy influenced individual, paying attention to opportunities in their life circumstances.

There was no influence self efficacy to socio structural factors and no influence self efficacy mother's to behavior in complementary feeding stunting, because this was due to parents and families who contribute more in taking care of the children of respondents, so that support and obstacles can be passed well. Social structural factor was a social reaction to a particular behavior, functioning as a facilitator or an obstacle to behavior. It could be a positive or negative delivery of the social environment that can be used as a facilitator of new behaviors<sup>(11)</sup>.

There was no influence outcome expectencies to mother's intention for complementary feeding stunting. Because even though the respondent has a low intention to keep feeding his child without seeing his nutritional intake for caring a child is a mother's job, because though the respondent has a low intention, the mother still feeds his child without seeing his nutritional intake because caring for the child is the task of the mother.

There was no influence socio structural to mother's intention for the child's complementary feeding, because complementary feeding related to parenting. In raising their children majority respondents assisted parents or family members so that support and obstacles can be well passed. The results of this study contradict Bandura 2004 in Zechner 2015, social structural factors, social reactions to specific behaviors, work as facilitators or behavioral changes and can be a positive response from the environment that can be used as a facilitator of behavior.

There was no influence between intentions on mother's behavior in feeding her child. This did not depend on the high level of education and the size of the mother's intentions, but limited to giving her child a meal, is full and not fussy. The results of this study are not accordance with social cognitive theory<sup>(10)</sup>, that behavior is influenced by 3 factors namely: goals (intentions), expected results, and self efficacy. Behavior is the deciding factor in an interaction. Not only the result of interaction between humans and the situation, but also based on an analysis of the process of mutual determinism between behavior, other personal factors, and environmental factors. All these factors have a position as the same determinant<sup>(12)</sup>. The results of this study contradict the previous research, namely research from Dwi Pandrya (2016)<sup>(13)</sup>. Based on the results of research, intentions can

influence the eating behavior of vegetables and fruits. Strong intentions will lead to 3.95 times greater desire to eat fruits and vegetables.

### CONCLUSION

This research concluded is that mothers who include young adults and highly educated may not be able to treat and provide nutritious food for their children due to mother's knowledge about malnutrition, lazy and busy factors. When mothers self efficacy high has factor results expected good category of 45.39% and not good by 54.61%. Mothers who have high self efficacy have good category intention of 31.65% and not good at 68.35%. So more importen to socialization of complementary feeding on infant and toddler mothers and community to overcome stunting.

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