

DETERMINANTS OF HEALTH VISIT AMONG MOTHERS WITH TODDLERS AT THE INTEGRATED HEALTH POST, NGANJUK DISTRICT, EAST JAVA

Ambar Dwi Retnoningrum, Ike Nurrochmawati, Dewi Indriani

School of Health Sciences Satria Bhakti Nganjuk

ABSTRACT

Background: Regular visit to the integrated health post is essential to monitor health and nutritional status of children under five years of age. However, the frequency of visits remained low in Nganjuk District, East Java. This study aimed to determine the factors affecting health visit of children under five at the integrated health post in Nganjuk District, East Java.

Subjects and Method: This was a cross-sectional study conducted at Ngetos Integrated Health Post, Nganjuk, East Java, in April 2019. A sample of 100 children under five was selected for this study. The dependent variable was visit to the integrated health post. The independent variables were child age, maternal education, maternal work status, and motivation. The data were collected using questionnaires. The data were analyzed by multiple logistic regression.

Results: Visit of children under five years of age to the integrated health post increased with child age (OR= 1.60; 95% CI= 0.90 to 12.20; p= 0.071), higher maternal education (OR= 4.66; 95% CI= 2.13 to 28.14; p= 0.002), working mothers (OR= 2.90; 95% CI= 1.57 to 26.45; p= 0.010), and higher motivation (OR= 2.45; 95% CI= 1.35 to 19.05; p= 0.016).

Conclusion: Visit of children under five years of age to the integrated health post increases with child age, higher maternal education, working mothers, and higher motivation.

Keywords: children under five years of age, mothers, integrated health post

Correspondence:

Ike Nurrochmawati. School of Health Sciences Satria Bhakti, Nganjuk. Jl. Panglima Sudirman VI Nganjuk, East Java. Email: ike.nurrochma@gmail.com. Mobile: +6282141578108.

BACKGROUND

Posyandu is an integrated healthcare center organized by the community assisted health workers in working area of the Community Health Center (Sumini, 2014). Community participation in visiting posyandu is still low, even though the mother's participation in posyandu activities will affect nutritional status of children under five. One of the goals of posyandu is to monitor the improvement in the community's nutritional status, especially children under five and pregnant women (Cahyono, 2016).

The results of Riskesdas (2010) stated that 23.8% of children under five had never been weighed in the last 6 months. The per-

centage of the number of children under five being weighed in Nganjuk Regency in 2016 was 85% (Dinkes Nganjuk, 2016). The number of children under five in Nganjuk Regency in 2017 was 71,860 children and those who weighed 86.6% (Dinkes Nganjuk, 2017). These results still did not meet the 90% target of the Ministry of Health Republic Indonesia.

The mother's participation at the posyandu was affected by maternal age, education, motivation, and work status (Reihana and Duarsa, 2012). Motivation starts from encouragement within oneself and the environment (Sumini, 2014). The impact of inactive mothers with toddlers to posyandu were: (1) Growth and development of child-

ren under five is not monitored; (2) Mothers did not get health education about toddlers; (3) Children did not get vitamin A supplement; and (4) Toddler's mother did not get counseling and did not receive complimentary food (Sugiyarti et al., 2014).

Posyandu is one of the interventions for monitoring the growth and development of children under five in the 1000 first day of life movement (Ministry of Health, 2012). Toddlers who were weighed irregularly had a 1.5 times risk of development failure than those who were weighed regularly. If there are abnormalities in growth and the development and health status of toddlers, the child can be referred to the puskesmas (Rahmadini et al., 2013).

This study aimed to analyze the determinants of the activeness of mothers with toddlers under five years of age at the posyandu in Nganjuk district.

SUBJECTS AND METHODS

1. Study Design

This was a cross-sectional study conducted at Ngetos Integrated Health Post, Nganjuk, East Java, in April 2019.

2. Population and Sample

A sample of 100 mothers with children under five was selected using a simple random sampling technique.

3. Study Variables

The dependent variable was maternal activeness visiting the integrated health post. The independent variables were toddler age, maternal education, maternal work status, and motivation.

4. Operational Definition of Variables

Toddler age (month) was the age of under-five measured at birth obtained from the MCH Handbook. Categorical measurement scale: 0= age ≤ 12 months and 1= age > 12 months.

Maternal education was the last formal education taken by the mother as measured by a questionnaire. Categorical measurement scale: 0= $< \text{SMA}$ and 1= $\geq \text{SMA}$.

Maternal work status was a relationship between companies and workers as measured by a questionnaire. Categorical measurement scale: 0= $< \text{SMA}$ and 1= $\geq \text{SMA}$.

Maternal motivation was an individual's condition that can encourage someone to act and influence a person's behavior to do something as measured by a questionnaire. Categorical measurement scale: 0= less motivation and 1= high motivation.

Maternal activeness in posyandu was the mothers with toddlers under five years of age actively visit posyandu in the past 6 months. Categorical measurement scale: 0= inactive (< 4 times/ 6 months) and 1= active (≥ 4 times/ 6 months).

5. Data Analysis

Univariate analysis was carried out to measure the frequency and percentage of sample characteristics. The chi-square test was used to analyze the relationship between two variables using a 2x2 table. Multivariate analysis was carried out using multiple logistic regression.

RESULTS

1. Sample Characteristics

Table 1 showed that the children under five actively came to the posyandu was mostly aged < 12 months (72%). The majority of mothers actively visit to posyandu was not work (72%), graduated high school (61%), and had a good motivation (47%).

2. Bivariate Analysis

Table 2 showed the association between the toddler's age, maternal education, maternal work status, and maternal motivation with mothers' activeness visit the posyandu. Visit of children under five years of age to the integrated health post increased with child age

(OR= 1.40; 95% CI= 0.17 to 0.98), and it was statistically not significant (p= 0.036). That was, mothers with toddlers aged less than 12 months were 1.40 times more likely to be active visiting posyandu. Mothers with higher education were 14.52 times more likely to visit posyandu (OR= 4.29; 95% CI= 1.56 to 11.76), it was statistically significant (p= 0.003). Highly motivated mothers with

education were 14.52 times more likely to visit posyandu (OR= 14.52; 95% CI= 4.02 to 52.48), it was statistically significant (p <0.000). Not working mothers with toddlers were 2.90 times

toddlers were 2.45 times more likely to visit posyandu OR= 8.90; 95% CI= 3.19 to 24.80), and it was statistically significant (p <0.000).

Table 1. Sample Characteristics

Variables	Activeness			
	No		Yes	
	n	%	n	%
Toddler age (months)				
<12	16	51.6	50	72
≥12	15	48.4	19	28
Maternal education				
<High school	28	90	27	39
≥High school	3	10	42	61
Maternal work status				
Not work	24	77	50	72
Work	7	23	19	28
Maternal Motivation				
Less	25	81	22	32
Good	6	19	47	68

Table 2. Determinants of activeness of mothers with under five years old children in visiting posyandu

Variables	Activeness				OR	95 % CI		p
	No		Yes			Lower limit	Upper limit	
	n	%	n	N%				
Toddler age (months)								
<12	16	16	49	49	1.40	0.17	0.98	0.036
≥12	15	15	31	31				
Maternal education								
<High school	28	28	27	27	14.52	4.02	52.48	0.000
≥High school	3	3	42	42				
Maternal work status								
Not working	24	24	50	50	4.29	1.56	11.76	0.003
Working	7	7	19	19				
Maternal motivation								
Less	25	25	22	22	8.90	3.19	24.80	0.000
Good	6	6	47	47				

3. Multivariate Analysis

Table 3 showed the determinants increased the activeness of mothers with under five years old toddlers visit to posyandu were children aged <12 months, mother's education more than high school graduate,

mothers do not work, and highly motivated mothers, which were statistically significant. The most influential variable from the results of multiple logistic regression analysis was maternal education.

Table 3. Multiple logistic regression analysis determinants activeness mother toddler coming to posyandu at Puskesmas Ngetos Nganjuk East Java Province

Variables	OR	CI 95%		P
		Lower limit	Upper limit	
Toddlers age	2.90	0.90	12.20	0.071
Maternal education	4.66	2.13	28.14	0.002
Maternal work status	1.60	1.57	26.45	0.010
Maternal motivation	2.45	1.35	19.05	0.016
N observation	100			

DISCUSSION

This study found that mothers with toddlers aged less than 12 months were more likely to visit actively to posyandu. It was found that maternal education was associated with the activeness of mothers with toddlers to posyandu. Mothers with the last education of more than high school level education were more likely to visit posyandu actively. It can be seen that the higher the mother's education level, the higher the understanding of knowledge.

In the occupational status, mothers with no job were more likely to visit posyandu actively than mothers who worked. The study of Sativa (2017) stated a significant relationship between work and mothers' activeness with children under five years aged in Posyandu activities at Posyandu Dusun Mlangi, Sleman Regency. Raharjo (2012) also stated a relationship between mothers' work status and active visits to posyandu in Jendi, Selogiri Subdistrict, Wonogiri Regency. The work status of mothers was one of the inhibiting factors of weighing toddlers at Posyandu. Working mothers could not bring their children to posyandu, possibly because

posyandu was held on weekdays and working hours (Ismawati, 2010). There might be difficulties in dividing their time in taking care of the family and being busy because they have to help their husbands for their financially needs.

In this study, there was a significant relationship between mothers' activeness with under-five children with maternal motivation visiting posyandu. Highly motivated mothers were more likely to visit posyandu than less motivated mothers. Family support is one of the motivations for mothers to be active in bringing their children to posyandu (Kurnia, 2013). With support from families, midwives, and maternal cadres, mothers will be more enthusiastic and motivated to participate actively in posyandu activities every month.

The results of the multivariate analysis in this study showed toddlers age less than 12 months, maternal education of more than high school graduate, mothers not working, and highly motivated mothers increased the activeness of mothers with children under five years age visiting posyandu. And it was statistically significant. The most influential

factor from the results of multiple logistic regression analysis was maternal education.

In accordance with Sukesni (2018) study in Suhardjo, maternal education affects health behavioral changes. Therefore, the higher the mothers' educational status, the more awareness to actively participate in posyandu activities. Mothers with a high level of education have a better understanding of information. It can affect the awareness of mothers in active participation in posyandu.

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