

## Original Research

# Good Knowledge Makes Good Behavior In Giving Vitamin A To Toddler

Anik Kurniawati<sup>1\*</sup>, Mey Lely Setyaningrum<sup>2</sup>, Sumantri<sup>3</sup>

<sup>1,2,3</sup> Departemen of Midwifery Poltekkes Kemenkes Surakarta

### ABSTRACT

**Background:** Vitamin A is one of the important nutrients that is fat-soluble and stored in the liver, cannot be made by the body so it must be met from the outside. Data from East Java Provincial Health Office note that the scope toddlers who received vitamin A capsules in 2019 reached 90.80% and has met the 2019 target of 90.8%. Meanwhile, the coverage of giving vitamin A capsules in Ngawi Regency is 75.9% of the target of 90.80% in 2019. The purpose of the study were to identify the characteristics of respondents based on age, education and occupation, to describe the mother's knowledge about vitamin A capsules in toddlers, to describe the attitudes of mothers about vitamin A capsules to toddlers.

**Methods:** Descriptive quantitative research methods with a survey approach. The sampling technique was total sampling with a sample size of 60 mothers with toddlers aged 6-59 months at the Posyandu I Kartoharjo Village, Ngawi in 2021. The data analysis technique used was descriptive statistics.

**Results:** The characteristics of the respondents based on the majority age 21-35 years (73%), based on the education of the majority of High School (42%), based on the occupation of the majority of housewives (78%), the description of the mother's knowledge about vitamin A capsules was mostly good (58 %), the majority of mothers' attitudes about vitamin A capsules support (96%).

**Conclusion:** The research measurement knowledge and attitudes of mothers about vitamin A capsules in toddlers during the covid-19 pandemic at the Posyandu I Kartoharjo Village, Ngawi is good. However, there is still knowledge and attitudes that are lacking and unsupportive, during the pandemic covid 19, it is hoped that efforts to increase the knowledge and attitudes of respondents about vitamin A.

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### CONTACT

Anik Kurniawati



[anikpoltek@gmail.com](mailto:anikpoltek@gmail.com)

Departemen of Midwifery  
Poltekkes Kemenkes Surakarta, Jl.  
Kesatrian No.2, Danguran, Kec.  
Klaten Sel., Kabupaten Klaten,  
Jawa Tengah 57425

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## INTRODUCTION

Vitamin A deficiency (VAC) is still a problem that spreads throughout the world, especially in developing countries and can occur at all ages, especially during the growth period East Java Provincial Health Office, 2018). According to WHO (2014) as

many as 250 million pre-school children suffer from vitamin A deficiency. The results of the Study of Micronutrient Problems in 10 Provinces in Indonesia conducted by the Research and Development Center for Nutrition and Food of the Ministry of Health of the Republic of Indonesia in 2006 showed that toddlers with serum retinol less than 20 g/dl by 14.6%. Therefore, serum retinol in the blood is an indicator that VAC is still a public health problem (Kemenkes RI, 2016).

One of the effects of lack of vitamin A is eye disorders that generally occur in children aged 6 months - 5 years which are the main cause of blindness. Children who suffer from vitamin A deficiency are very susceptible to infections such as acute respiratory infections, measles, chicken pox, diarrhea and other infections because the child's resistance decreases (East Java Provincial Health Office, 2018). Vitamin A is one of the important nutrients that is fat-soluble and stored in the liver, it cannot be made by the body so it must be met from the outside (East Java Provincial Health Office, 2018).

Vitamin A capsules is a soft capsule with the tip (nipple) that can be cut, non-transparent (opaque), and easy to take, including being able to enter into a toddler's mouth. Vitamin A capsules for infants aged 6–11 months are blue in color and contain retinol (palmitate/acetate) 100,000 IU with a frequency of 1 time, while vitamin A capsules for infants aged 12-59 months are red and contain retinol (palmitate/acetate) 200,000 IU with a frequency of 2 times. The timing of giving vitamin A capsules to infants and toddlers is carried out simultaneously every February and August (Indonesian Health Profile, 2019). Vitamin A capsules are one of the government programs in order to meet the needs of vitamin A in toddlers. Result of the research conducted by mostafa di Bangladesh state that low coverage vitamin A was found to be associated with low parental education and poverty.

Data from East Java Health Profile (2019) coverage of infants received vitamin A capsules in 2019 reached 90.80% and has met the 2019 target of 90.8%. Judging from the Regency/City level in East Java Province, Ngawi Regency occupies the second lowest position after Mojokerto Regency with a coverage of 75.9% vitamin A capsules East Java Provincial Health Office, 2020). According to a brief interview that the researcher conducted with 5 mothers of toddlers in Kartoharjo Village, Ngawi, it was found that 2 mothers of toddlers could not mention the benefits of vitamin A, the shape/color of the vitamin A capsules given to toddlers and the schedule for giving vitamin A.

However, at the time of distribution vitamin A capsules, mothers of toddlers continue to give vitamin A capsules to toddlers because they follow the recommendations of cadres/health workers. Notoatmojo (2011) states that knowledge influences a person to have awareness, so that people will be have according to the knowledge they have. Changes in behavior based on knowledge, awareness and positive attitudes are lasting because they are based on their awareness.

The purpose of this study was to determine the characteristics of mothers of children under five at Posyandu I Kartoharjo Village, Ngawi and to describe the knowledge and attitudes of mothers about vitamin A capsules for toddlers at Posyandu I Kartoharjo Village, Ngawi.

## **MATERIALS AND METHOD**

This type of research is descriptive, using a quantitative method with a survey approach (Sugiyono, 2016). This study was conducted on 09 June 2021 on at the

integrated service post I Kartoharjo Village, District Ngawi, Ngawi. The population of this study were all mothers of children under five who were registered at the integrated service post I Kartoharjo Village, Ngawi with a total of 60 people. The sampling technique of this research is non-probability sampling, census type or total sampling. The sample in this study were mothers who had toddlers aged 6-59 months who were registered at the integrated service post I Kartoharjo Village, Ngawi as much of 55 plus 10% ( avoiding *drop outs* ) to 60 people.

The variables of this study were knowledge and attitudes of mothers about vitamin A capsules in toddlers. Type of data used are primary data obtained through how to spread the questionnaire to the respondent. Analysis of the data used is descriptive statistics, namely statistics used to analyze data by describing or describing the data that has been collected as it is without the intention of making conclusions that apply to the public or generalizations. In this analysis only the distribution of the frequency and percentage of each variable (Notoatmodjo, 2018).

## RESULTS

The results of validation by expert judgments are 2 midwifery lecturers and 1 nutritionist show that the *V-Aiken value* moves from 0.42 to 0.83. So it can be concluded that the content of the 20 questions is declared valid and the value of *r-count* move of figures from .638 to .837. When compared with *r-count* with *r-table* , the 20 questions are declared reliable.

**Table 1.** Characteristics of Respondents

Characteristics	Category	Frequency	Percentage
Age	<20 years	3	5%
	21-35 years	44	73%
	>36 years	13	22%
Education	Elementary School	10	16%
	Junior High School	22	37%
	High School/Vocational High School	25	42%
	College	3	5%
Work	Housewife	47	78%
	Self-employed	8	13%
	Private employees	4	7%
	Civil Servants	1	2%

From the table above, the percentage of numbers moves from 2-78%. So the researcher concluded that the majority of respondents were aged 21-35 years (73%), the majority of respondents' education was High School/Vocational High School (42%), and the majority of respondents' occupations were housewife (78%).

**Table 2.** Description of Mother's Knowledge About Vitamin A Capsules in Toddlers

Characteristics	Knowledge					
	Not Enough		Enough		Good	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
<b>Age</b>						
<20 years	0	0%	0	0%	3	5%
21-35 years	2	4%	15	25%	27	45%
>36 years	0	0%	8	13%	5	8%
Total	2	4%	23	38%	35	58%
<b>Education</b>						
Elementary School	1	2%	9	15%	1	2%
Junior High School	0	0%	9	15%	12	20%
High School/ Vocational High School	1	2%	5	8%	19	32%
College	0	0%	0	0%	3	5%
Total	2	4%	23	38%	35	58%
<b>Profession</b>						
Housewife	2	4%	19	32%	27	45%
Self-employed	0	0%	3	5%	4	8%
Private employees	0	0%	1	2%	3	5%
Civil Servants	0	0%	0	0%	1	2%
Total	2	4%	23	38%	35	58%

From the table above, the percentage of numbers moves from 4-58%. So it can be concluded that the knowledge of the majority of 60 respondents is in the good category, namely as many as 35 respondents (58%).

**Table 3.** Overview of Mothers' Attitudes About Vitamin A Capsules in Toddlers

Characteristics	Attitude			
	Not Supportive		Supportive	
	Frequency	Percentage	Frequency	Percentage
<b>Age</b>				
<20 years	0	0%	3	5%
21-35 years	2	4%	42	70%
>36 years	0	0%	13	21%
Total	2	4%	58	96%
<b>Education</b>				
Elementary School	0	0%	11	18%
Junior High School	1	2%	20	33%
High School/ Vocational High School	1	2%	24	40%
College	0	0%	3	5%
Total	2	4%	58	96%
<b>Profession</b>				
Housewife	1	2%	47	78%
Self-employed	1	2%	6	10%
Private employees	0	0%	4	6%
Civil Servants	0	0%	1	2%
Total	2	4%	58	96%

From the table above, the percentage of moving numbers moves from 4-96 %. So it can be concluded that the attitude of the majority of the 60 respondents is in the supportive category as many as 58 respondents (96 %).

## DISCUSSION

Based on the guidelines for health services for toddlers during the *Covid-19* emergency response period (2020), routine services for healthy toddlers follow Government policies that apply in the work area and take into account the local transmission of *Covid-19*. The integrated service in Kartoharjo Village, Ngawi are carried out by visiting children's homes (door to door) in accordance with health protocols. This aims to reduce direct contact with many people, crowds, and as an anticipation, especially for toddlers who are very susceptible to infection so that it is hoped that this can reduce the spread of *Covid-19*. Data collection was carried out on June 9, 2021 through questionnaires distributed to respondents when weighing toddlers with the integrated service post I in Kartoharjo Village, Ngawi.

The results showed the characteristics of the 60 respondents, the majority aged 21-35 years (73%), the majority had high school education (42%), and the majority worked as housewives (78%). According to research by Juliansyah & Rizal (2018), the bivariate results variables related to the behavior of smoke is aged with  $p$ -value of

0.000 and OR is 6.176 in the Sungai Durian Health Center area, Sintang (2017) with a sample of 218 respondents. According to Huclok in Henry and the Goddess (2011), as one gets older, the level of maturity and strength of a person will be more mature in thinking and working.

According to the results of research by Rahayu Setyowati (2015) that there is a relationship between education and mother's knowledge about caring for premature babies ( $p$ -value 0.027) and there is a relationship between work and mother's knowledge about caring for premature babies ( $p$ -value 0.049). Notoatmodjo (2016) emphasized that education is a planned effort to influence other people, both individuals and community groups, so that they do what is expected by education actors. According to Thomas, work is a bad thing that must be done especially to support life. Work is not a source of pleasure, but rather a boring, repetitive and challenging way of earning a living. Working for mothers will have an influence on life (Wawan and Dewi, 2011).

From 60 respondents obtained an overview of mother's knowledge on vitamin A supplementation in infants the *covid-19* pandemic at the integrated service post I Kartoharjo Village, Ngawi fit in either category. The results of this study are the same as the results of research conducted by Heny Sepduwiyana (2010) that more than half of the knowledge about giving vitamin A to toddlers is in the good category, namely as many as 86 respondents (86.9%) at the integrated service Sayang Toddlers, Ujung Batu Village, Ujung Batu Community Health Center Working Area. Batu April-May 2010 with a total sample of 109 respondents.

In accordance with the theory Notoadmojo (2018) that knowledge is the result of human senses or results to know someone of the object through the senses dimilkinya, experience that comes from a variety of sources such as mass media, electronic media, health workers, media poster, a close relative, and so on. Form certain beliefs so that a person behaves in accordance with these beliefs. Researchers assume that good knowledge is obtained because of age, education and work. According to the results of the Soul (2013) that there is a significant influence between the factors of age with the value  $p$ -value 0,001 knowledge of mothers in infant care in the postpartum hospital Lanto Dg Pasewang district Jenepono Regency in 2013 with a sample of 30 respondents (Scientific Journal of Medical Diagnosis, Vol . 3 No. 5, 2013).

This is in accordance with what Budiman and Riyanto (2013) described that the age affects comprehension and thinking humans, increasing the person's age, the more developed also capture power and patterns of thought, so that the knowledge gained, the better. Andriyani Puspita research results (2018) that the value of  $p$  Value- 0,015 (education), the value of  $p$ -Value 0,000 (jobs) that concluded that there is a significant relationship education and employment by giving Vit amin A in infants (6-59 months) in health centers Kandai Kendari City in 2018 with a sample of 30 respondents ( Journal of SMART Midwifery, Vol. 6 No. 1, 2019 ). This is in accordance with Wawan & Dewi (2011) that the higher the education level of the respondent, it is expected that it will be easier for the respondent to accept the knowledge they have , while working for mothers will have an influence on family life. Respondents who work as housewives will spend more time at home and the surrounding environment so that mothers will pay more attention to the health of their families.

The description of mothers' attitudes about vitamin A capsules in toddlers based on the results of this study showed that more than half (97%) had a supportive attitude. The results of this study are the same as the results of Heny Sepduwiyana's research (2010) that the majority of mothers' attitudes are included in the positive

attitude category as many as 86 respondents (78.89%) at the integrated service Sayang Toddler, Ujung Batu Village, Ujung Batu Health Center Working Area April-May 2010 with a total sample of 109 respondents. Berkowitz explained that a person's attitude towards an object is a feeling of support or partiality as well as a feeling of support or impartiality to the object (Azwar, 2013).

Researchers assume that the supportive attitude is due to the influence of other people who are considered important. According to the results of Puspita's research (2017), it is stated that family support ( $p < 0.005$ ; 95% CI= 2.063–5.141) and the role of health workers ( $p < 0.005$ ; 95% CI= 2.172–5.391) are related to compliance with hypertension sufferers in undergoing treatment (Journal of Public Health, 2017). Azwar (2013) asserts that someone we consider important, someone we hope for approval for our every move and opinion, among people who are considered important for individuals are parents, people with higher social status, peers, close friends, teachers, coworkers, wife or husband, and others.

According to the results of Puspita Andriyani's research (2018) that there is a significant relationship between knowledge and the provision of vitamin A to toddlers (6-59 months) at the Kandai Health Center, Kendari City in 2018 with a sample of 30 respondents. According to the research results of Wahyunita, Sulastriningsih, Harahap (2019), it shows that the mother's attitude ( $p$ -value 0.037) affects the administration of vitamin A to toddlers in Ciriung-Cibinong Village in 2016 with a sample of 50 respondents. Researchers assume that knowledge and attitudes affect the administration of vitamin A to toddlers.

This may be because respondents know the importance of consuming vitamin A for their toddlers, and consider that vitamin A cannot be met by food consumed by toddlers everyday so that additional vitamin A capsules are needed. Regarding vitamin A capsules, it is expected that someone will behave positively so that the coverage of vitamin A capsule administration can meet the target. From the results of this study, there are still mothers who have less knowledge (4%) and attitudes are not supportive (4%).

Based on data, mothers who have less knowledge and are unsupportive are influenced by age, education and occupation factors (Primary Data, 2021). Notoatmojo (2011) states that knowledge influences a person to have awareness, so that people will be have according to the knowledge they have. Changes in behavior based on knowledge, awareness and positive attitudes are lasting because they are based on their awareness. In addition, it is possible because posyandu services are different from before and during the pandemic.

Before the pandemic, all health service activities such as counseling and giving vitamin A capsules were carried out at the posyandu together with all members of the integrated service and the monitoring team from the ancient Ngawi Health Center, but currently there is no counseling because the posyandu is carried out by visiting children's homes (door to door) and in the administration of vitamin A capsules is carried out at the Polindes (Village Maternity Boarding School) so it takes time because the respondent's house is quite far from the village maternity hut.

This is in accordance with the research conducted by Maulida and Setiarini (2020) on the impact of the *Covid-19* pandemic on the implementation of supplementation with vitamin A capsules in Pekanbaru City, which showed that the implementation of vitamin A capsule supplementation at the Pekanbaru City Health Center before the pandemic had been going well. However, there was a drastic change in health services

and the implementation of vitamin A supplementation during the *Covid-19* pandemic, causing a significant reduction in the scope of achievement of success, far below the national target of 82%.

This decrease in coverage was caused by several things, such as: 1) Integrated service that were not open due to the activity restriction policy (PSBB); 2) not optimal performance of cadres in distributing vitamin A door to door; 3) some cadres who are still reluctant to go to the field due to fear of the *Covid-19* pandemic; and 4) there are still many people who are afraid to be given direct health service visits by health workers (Jurnal Kesehatan, Vol. 12, No.1, 2021).

## CONCLUSION

The characteristics of the respondents based on the age of the majority are aged 21-35 years, the characteristics of the respondents based on the education of the majority are SMA/SMK education, and the characteristics of the respondents based on the occupation are the majority working as housewives. The description of mother's knowledge about vitamin A capsules in toddlers is more than half in the good category. The description of mothers' attitudes about vitamin A capsules in toddlers is mostly in the supportive category.

Suggestion To the midwives or health cadres of Kartoharjo Village, Ngawi in particular to further increase the knowledge and attitudes of mothers and toddlers about vitamin A capsules through health education, as well as the installation of posters or pamphlets related to vitamin A so that vitamin A deficiency disease can be prevented and can increase the coverage of vitamin A administration. on Toddler.

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