

Correlation Between Knowledge and Attitudes of Mothers with The Fulfillment of Toddler's Health Services During The COVID-19 Pandemic

Hubungan Pengetahuan dan Sikap Ibu dengan Pemenuhan Pelayanan Kesehatan Balita di Masa Pandemi COVID-19

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ABSTRAK

Latar Belakang: Dunia saat ini menghadapi penyebaran virus korona baru yang disebut COVID-19 dan ditetapkan sebagai pandemi global. Kondisi pandemi ini membuat beberapa pelayanan kesehatan masyarakat terpaksa dihentikan, termasuk Posyandu. Hal ini mengakibatkan adanya penurunan cakupan imunisasi maupun pemberian vitamin A pada balita. Pengetahuan ibu merupakan hal mendasar yang berperan dalam pengambilan keputusan untuk menentukan sikap dan perilakunya. Keterbatasan informasi terkait pelayanan kesehatan balita di masa pandemi berakibat pada kurangnya pengetahuan ibu yang mendorong ibu untuk menunda memberikan imunisasi dan vitamin A pada anak di masa pandemi.

Tujuan: Tujuan dari penelitian ini adalah menganalisis hubungan pengetahuan dan sikap ibu dengan pemenuhan pelayanan kesehatan balita di masa pandemi COVID-19.

Metode: Penelitian ini merupakan kegiatan survei online yang dilakukan di wilayah Jawa Timur. Penelitian yang dilakukan merupakan penelitian observasional dengan desain penelitian *cross sectional*. Populasi dalam penelitian ini yaitu ibu dengan balita (12-59 bulan) di wilayah Jawa Timur sebanyak 208.045 (BKKBN, 2020). Sampel diambil menggunakan teknik *accidental sampling* sebesar 80 orang. Instrumen yang digunakan berupa kuesioner yang telah dilakukan uji validitas dan reliabilitas. Pengumpulan data dilakukan secara online dengan *Google form* yang disebarluaskan dalam rentang waktu satu minggu (2-9 september 2020). Analisis data menggunakan uji *chi square* (bivariat) dan regresi logistik (multivariate).

Hasil: Hasil penelitian menunjukkan sebagian besar responden memiliki pengetahuan baik (78,3%) dan sikap positif (92,5%). Berdasarkan penelitian ini, dapat diketahui bahwa ada hubungan pengetahuan (*p value* = 0,000) dan sikap ibu (*p value* = 0,007) dengan pemenuhan pelayanan kesehatan balita di masa pandemic covid-19.

Kesimpulan: Terdapat hubungan pengetahuan dan sikap ibu dengan pemenuhan pelayanan kesehatan balita di masa pandemi COVID-19. Perlu meningkatkan promosi kesehatan untuk mencegah timbulnya Penyakit yang Dapat Dicegah dengan Imunisasi (PD3I) dan tertular Covid-19.

Kata kunci: Covid-19, pengetahuan, sikap, pelayanan kesehatan balita

ABSTRACT

Background: The world was facing the spread of a new coronavirus called COVID-19, which has been designated as a global pandemic. This condition forced several public health services to be discontinued, including the Posyandu. This resulted in a decrease in immunization coverage and the provision of vitamin A to children under five. A mother's knowledge was a fundamental thing that played a role in her decision-making to determine her attitude and behavior. Limited information related to health services for children under five during the pandemic resulted in a lack of knowledge among mothers, which encouraged mothers to delay giving immunizations and vitamin A to children during the pandemic.

Objectives: This study aimed to analyze the correlation between knowledge and attitudes of mothers with the fulfillment of toddler's health services during the COVID-19 pandemic.

Methods: This research was an online survey activity conducted in East Java. This research was an observational study with a cross-sectional research design. The population in this study were mothers with toddlers (12–59 months) in the East Java region, as many as 208.045 (BKKBN, 2020). Samples were taken using an accidental sampling technique of 80 people. The instrument used was a questionnaire that has been tested for validity and reliability. Data collection was done online with Google forms, which were distributed within a span of one week (2–9 September 2020). Data analysis used the chi-square test (bivariate) and logistic regressions (multivariate).

Results: The results showed that most of the respondents had good knowledge (78.3%) and positive attitudes (92.5%). Based on this research, it can be seen that there was correlation between knowledge (p value = 0,000) and attitudes of mothers (p value = 0,007) with the fulfillment of toddler's health services during the COVID-19 pandemic.

Conclusions: There is correlation between knowledge and attitudes of mothers with the fulfillment of toddler's health services during the COVID-19 pandemic. It is necessary to increase health promotion to prevent the emergence of diseases that can be prevented by Immunization (PD3I) and contracting Covid-19.

Keywords: COVID-19, knowledge, attitude, toddler's health services

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INTRODUCTION

The world is facing the spread of a new coronavirus called COVID-19 by the World Health Organization (WHO). According to a statement from the Wuhan Municipal Health Committee, this virus first appeared in Wuhan, China on December 30, 2019 as pneumonia with an unknown cause. There were 27 cases in Wuhan that were reported to WHO on December 31, 2019. The first COVID-19 cases outside China were first reported in Thailand (WHO, 2020). The first case was reported in Indonesia on March 2, 2020, and at the end of March 2020 the mortality rate was 8.9%, which is the highest number in Southeast Asia (WHO, 2020). The first case reported in East Java Province was on March 17, 2020. Six cases were confirmed through specimen testing at UNAIR Hospital (Purba, 2020). This situation had an impact on all aspects of life, including public health services, especially toddler's health services.

According to the Ministry of Health (2020), there were 83.9% of basic health services that were not run optimally, especially in Posyandu (IAKMI, 2020). Only 19.2% of health centers were still carrying out Posyandu activities during the pandemic COVID-19 (IAKMI, 2020). This situation had an impact on 25 million toddlers who did not receive immunizations, vitamin A supplementation, growth monitoring, and other routine services usually found at Posyandu (IAKMI, 2020). In March–April 2020, PD3I immunization coverage decreased by 10–40% in March–April 2020 compared to the previous year (WHO, 2020). The government must prevent the spread of COVID-19 but, on the other hand, it has to reduce the infant mortality rate during this pandemic. The application of physical distancing and the Large-Scale Social Restriction (PSBB) policy that limits population mobility has had an impact on the accessibility of health services. This raised the risk of disruption to the continuity of health services, including for toddlers, which has the potential to increase morbidity and mortality. The long-term impact was the loss of future productive generations.

In response to that situation, the government made adjustments to toddler health services as stated in the toddler health service guidelines during the COVID-19 pandemic. Policies in the PSBB area or positive cases of COVID-19 include delaying toddler care activities at the posyandu and deworming administration; independent monitoring and progress at home; immunization services, vitamin A supplementation, and special examinations in health facilities by appointment. In non-PSBB areas or negative COVID-19 cases, all services could be carried out by strictly implementing physical distancing and health protocols (ministry of health of the Republic of Indonesia, 2020). According to the results of a survey conducted by UNICEF in 2020, it shown that mothers of toddlers had a fear of accessing child health services at puskesmas. This was because they worried that puskesmas had been a source of transmission of COVID-19 (ministry of health of the Republic of Indonesia and Unicef Indonesia, 2020). This fear caused mothers to delay or not immunize their children during a pandemic.

According to the Indonesian Pediatrics Association (IDAI), delaying immunization during the pandemic would have an impact on increasing the risk of outbreaks or PD3I, including measles, diphtheria, pertussis, neonatal tetanus, tuberculosis, hepatitis B, and polio. If the infectious disease was not immediately prevented by

immunization, it would have had an impact on death or disability in children under five. This was because immunization aims to cause or increase a person's immunity from exposure to disease. In addition, delaying immunization would have an impact on the effectiveness of the vaccine, so IDAI recommended not delaying immunization past the recommended schedule, and there was an option to carry out catch-up immunizations to complement the delayed immunization.

Health behavior is an experience and individual interaction especially knowledge and attitudes about health with their environment (Notoatmodjo, 2010). Knowledge is the basis of a person's behavior (Notoatmodjo, 2010). Knowledge related to immunization and vitamin A supplementation can affect the attitudes and beliefs of mothers towards compliance fulfill toddler health care. There is a significant relationship between maternal knowledge with the completeness of basic immunization and vitamin A supplementation (Prihanti, Rahayu and Abdullah, 2016; Adriani, 2019). Other studies have shown the opposite result, that the mother's level of knowledge has no effect on the completeness of basic immunization (Rahmawati and Wahjuni, 2014). Attitude is a person's closed reaction or response to a stimulus or object (Notoatmodjo, 2010). Attitude will determine the direction of someone behavior. Attitudes or beliefs of immunization mothers have an influence on the completeness of immunizations (Dillyana and Nurmala, 2019; Novianda and Qomaruddin, 2020). Attitude is one of the predisposing factors for behavior change related to the perception (Irwan, 2017).

East Java province was in the red zone with a significant increase in cases and was included in the province with the highest increase in cases in Indonesia. This resulted in restrictions on mobility and community activities. This condition made it impossible for Posyandu activities in East Java to be carried out as usual. In addition, restrictions on community activities have resulted in a decrease in public visits to health facilities, which has had an impact on decreasing the coverage of health services. Therefore, it was important to know the level of knowledge and attitudes of mothers in dealing with problems regarding efforts to fulfil children's health services during this pandemic. The purpose of this study was to analyze the relationship between knowledge and attitudes of mothers with the fulfilment of toddlers health services during the COVID-19 pandemic.

METHOD

This research was quantitative research with an analytical observational method and a cross-sectional research design. The population of this study were all mothers who had toddlers during the COVID-19 pandemic in East Java Province. The population of families with toddlers aged 0–59 months in East Java province is 208.045 (BKKBN, 2020). The minimum sample size based on Lameshow's calculations was obtained with as many as 78 people, rounded up to 80 people. The sampling technique used in this study was a non-probability sampling technique, namely consecutive sampling, due to the limitations of the researcher in obtaining a sampling frame of mothers with toddlers in East Java. Sampling was carried out by including all individuals who coincidentally received an online questionnaire broadcast and met the research criteria for a certain period of time, so that the number of samples was met. The sampling period was 1 week (2–9 September 2020). The sample criteria in this study were mothers with toddlers (0–59 months) who were in the province of East Java and aged 17–45 years.

The dependent variable was the fulfillment of toddler's health services during the COVID-19 pandemic. This variable was categorized into: 1) fulfilled, if the toddler (0-59 months) did immunizing and receiving vitamin A supplementation since the early COVID-19 pandemic, 2) unfulfilled, if the toddler did not immunize and or did not receive vitamins A supplementation since the early COVID-19 pandemic. The immunization and vitamin A supplementation data taken were from the beginning of the pandemic until the data was collected (March–September 2020). The independent variables were the mother's knowledge and attitude. The median score was used as the cutoff point because the data were not normally distributed (Shaluhiyah, Kusumawati, Indraswari, Widjanarko, and Husodo, 2020). The knowledge variable is categorized into good knowledge if median $X < \text{maximum score}$ (8-15) and lack of knowledge if minimum score $X < \text{Median}$ (0-8). Attitude variables are categorized into positive attitude if median $X < \text{maximum score}$ (10-16) and negative attitude if minimum score $X < \text{Median}$ (4-10). Age, education level, and occupation was confounding variable in this study.

The data collection instrument was in the form of a structured questionnaire that has been tested for validity using the Pearson correlation test with a significance of $p < 0.05$ and reliability using the Cronbach Alpha test > 0.60 . The primary data collection method used an online questionnaire in the form of a Google form. Data collection was carried out by broadcasting posters and Google form links through the mass media of GELIAT UNAIR, utilizing GELIAT UNAIR volunteers to distribute posters on their social media and also distribute them to known posyandu cadres to forward to mothers of toddlers in their regions. The data analysis techniques used were univariate analysis with frequency distribution, bivariate analysis using the chi-square test and Fisher exact (as an alternative if the chi-square test requirements were not met), and multivariate analysis using logistic regression to analyze the dominant factors influencing the independent variables. This research has received ethical acceptance from the Health Research Ethics Commission (KEPK), Faculty of Dentistry,

Airlangga University, Surabaya, with number 393/HRECC.FODM/VIII/2020.

RESULT AND DISCUSSION

Figure 1. shows 80 mothers under five who participated in this survey, spread across 22 cities/regencies in East Java. The largest number of respondents came from Surabaya City at 17.5%, and the lowest came from Madiun, Magetan, Tuban, and Trenggalek at 1.25%. Some respondents at the time of data collection (2–9 September 2020) came from cities or regions with red zones (high risk), including Banyuwangi Regency, Malang City, Pasuruan City, Pasuruan Regency, Probolinggo Regency, and Sidoarjo Regency. There is only one area of respondents who are in the yellow zone (low risk), which is Tulungagung Regency, and the rest are in the orange zone (Peta Sebaran COVID-19, 2020). There were limitations in data collection so that it could not cover all cities and regencies in the province of East Java, but the respondents in this study already represented every risk zone for the spread of COVID-19 in East Java province at the time of data collection.

Table 1. shows the socio-demographic description of respondents, amounting to 72.5% in the early adult category with an age range of 26–35 years. 56.3% of mothers do not work or as housewives. Education level 81.3% of respondents are college graduates. Table 2 shows that in this study, 78.75% of respondents continued to carry out immunizations, 73.75% received vitamin A supplementation, and 40% of respondents continued to do posyandu. The input category for health service fulfillment shows that 71.3% of respondents are fulfilled while the remaining 28.8% are not. Based on Table 3, the knowledge of mothers on each item is in the good category. The majority of mothers (90%) have knowledge related to emergencies in toddlers that require immediate transport to health facilities. 45% of mothers have less relevant knowledge of health protocols that must be applied during the COVID-19 pandemic.

Table 4. shows that most respondents (73.8%) have good knowledge, while those who lack knowledge are 26.2%. Based on the chi-square test in Table 5., it was found that there was a relationship between maternal knowledge and child health fulfillment (p-value 0,000). The majority of respondents had a positive attitude, which is 92.5%, and the rest of the respondents had a negative attitude (7.5%). The attitude variable did not meet the requirements of the chi-square test, so Fisher's test was used as an alternative to test the relationship between the attitude variable and the fulfillment of toddler services. Based on the results of Fisher's test in Table 5, maternal attitudes had a significant relationship with the fulfillment of toddler health services (p-value 0.007).

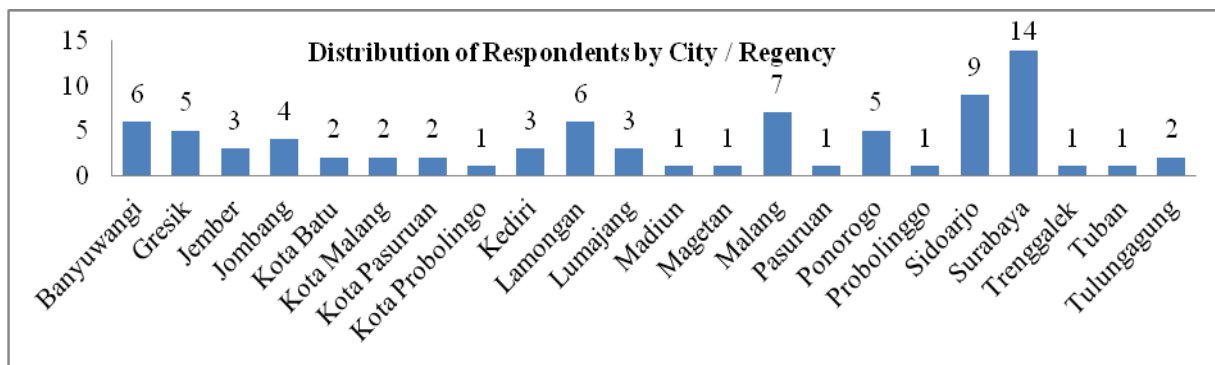


Figure 1. Distribution of Respondents by City / Regency in East Java Province in 2020

Table 1. Distribution of the Characteristics of Respondents in the East Java Region in 2020

Characteristics of Respondents		Amount
Age	Late teen (17-25 years)	11 (13.8%)
	Early adult (26-35 years)	58 (72.5%)
	Late adult (36-45 years)	11 (13.8%)
Profession	Private employees	19 (23.8%)
	Government employees	11 (13.8%)
	Entrepreneur	1 (1.3%)
	Jobless	45 (56.3%)
	Others	4 (5%)
Education level	Elementary school graduate	0 (0%)
	Junior high school graduate	5 (6.3%)
	Senior high school graduate	10 (12.5%)
	College graduate	65 (81.3%)

Table 2. Distribution of the Fulfillment of Toddler Health Services in the East Java Region in 2020

Toddler Health Services		Amount
Immunization	Yes	63 (78.75%)
	No	17 (21.25%)
Vitamin A Supplementation	Yes	59 (73.75%)
	No	21 (26.25%)
Posyandu	Yes	32 (40%)
	No	48 (60%)
Fulfillment of Toddler Health Services	Fulfilled	57 (71.3%)
	Unfulfilled	23 (28.8%)

Table 3. Distribution of the Maternal Knowledge Components in the East Java Region in 2020

Item of Mother's Knowledge		Amount
Health protocols	Good	44 (55%)
	Lack	36 (45%)
Toddler Health Services	Good	48 (60%)
	Lack	32 (40%)
	Good	72 (90%)
Emergency conditions in toddlers	Lack	8 (10%)

Table 4. Distribution of the Knowledge and Attitudes of Mothers in East Java Region in 2020

Variable		Amount
Knowledge	Good	59 (73.8%)
	Lack	11 (26.2%)
Attitude	Positive	74 (92.5%)
	Negative	6 (7.5%)

Table 5. Distribution of the Child Health Service Fulfillment based on Mother's Knowledge and Attitudes

Variable	Fulfillment of Toddler Health Services		p-value
	Fulfilled	Unfulfilled	
Knowledge	Good	49 (83.1%)	0,000
	Lack	8 (38.1%)	
Attitude	Positif	56 (75.7%)	0,007
	Negatif	1 (16.7%)	

Table 6. The multivariate test of the mother's knowledge and attitude variables on Fulfillment of Toddler Health Services during the COVID-19 Pandemic

Variable	p-value	OR	95% CI	
			Min	Max
Knowledge	0.485	0.653	0.198	2.160
Attitude	0.049	6.071	1.011	36.448

Table 6. Shows the results of the multivariate test of the mother's knowledge and attitude variables on the variable of fulfilling child health services. The results of the multivariate test showed that the mother's knowledge variable ($p=0.485$) had no significant effect on the fulfillment of under-five health services. While the attitude variable has a p value of <0.05 , meaning that there were a significant influence between the mother's attitude towards the fulfillment of health services for children under five. The attitude variable was the most dominant variable that influenced on the fulfillment of toddler health services with an odd ratio value of 6,071 which means that mothers who had a positive attitude were 6 times more likely to fulfill health services for toddlers during the COVID-19 pandemic compared to mothers with a negative attitude.

Characteristic of Respondents

Respondents in this study had a limit at the age of 17–45 years. According to the results of the study, the mean age of the respondents was 29.3 ± 4.3 years, which was included in the early adult category. A study showed that age is a predisposing factor that affects the completeness status of basic immunization (Prihanti, Rahayu and Abdullah, 2016). Other studies show the opposite results, maternal age has no relationship with the completeness and fulfillment of basic immunizations in children (Rahmawati and Wahjuni, 2014; Novianda and Qomaruddin, 2020). A person's age is often linked to the development of thinking abilities. The increase in maternal age is in line with the increase in maternal thoughts and experiences to some extent in caring for

children and influences efforts to prevent disease in children (Holipah, Maharani and Kuroda, 2018). Maturity level and a person's ability to think and receive information are affected by increasing age. It is not always true that someone who is older has more knowledge than someone who is younger (Fitriana, 2017). Furthermore, increasing age is associated with the amount of experience they get in caring for children, so it affects their behavior (Holipah, Maharani and Kuroda, 2018).

During this pandemic situation, age was also associated with a person's level of anxiety in facing pandemic situations. An online survey conducted in Iran showed the level of anxiety in the productive age group was significantly higher than in other age groups. The results of the study by Livana, Khoerina, Ningsih, Kandar, and Suerni (2020) stated that psychologically, adults have a high level of concern in making decisions, one of which is the decision to use health services during the COVID-19 pandemic. Research in Padang shows that more than half of respondents have moderate to severe levels of anxiety about immunizing their children during the COVID-19 pandemic (Yazia, Hasni, Mardhotillah, and Gea, 2020). Respondents in this study are in the productive age group, making it possible to have anxiety disorders. During the COVID-19 pandemic, mothers will be hesitant to bring their children to health facilities to be immunized (Ministry of Health of the Republic of Indonesia and UNICEF Indonesia, 2020)

The results of this study show that most respondents are jobless or housewives. Mothers who worked during the pandemic mostly did work from home. According to Budiarti (2019), the mother's employment status will affect the completeness of immunization for children under five. This study is in line with research of Irawati (2011), which shows that there is a significant relationship between mother's employment status with the accuracy of immunization. This is because parents who work even though they don't have much time for family, tend to be more facilitated in obtaining information related to immunization than mothers who do not work (Budiarti, 2019). Other studies have shown that there was no effect between work status and completeness of immunization for children under five because most respondents were jobless or as housewives, both of complete and incomplete immunization status (Rahmawati and Wahjuni, 2014).

In line with the research of Rahmawati and Wahjuni (2014), the results of this study showed that most mothers did not work, whether they fulfilled the status of under-five health services or not. Housewives had more time to socialize and had better-recorded attitudes and behaviors when giving immunizations because they had more time to deliver immunized children (Budiarti, 2019). The majority of working mothers did work from home during the COVID-19 pandemic. This results in mothers' having more time for family, so that the mother's work status did not affect the availability of time to care for toddlers during the pandemic.

The level of education was a person's process of developing abilities, attitudes, and behaviors in the community where they lived, as a form of the social process so that they could get optimal development of social and individual abilities (Nurhidayati, 2016). Most of the respondents' last education level was from tertiary education, while the lowest was from junior high school. According to the results of research by Rahmawati and Wahjuni (2014), mothers with a secondary education level and above are the largest respondents for complete immunization, and mothers with a secondary education level and below are more likely to not immunize their children. The higher a person's education, the greater their ability to receive information. Mothers with higher education could get more information than mothers with low education.

The ease of obtaining information and the advancement of technology have a major effect on the formation of people's opinions and beliefs. These opinions and beliefs would determine a person's behavior in the face of the COVID-19 pandemic. During this pandemic, there was a lot of information circulating in the community. A good level of education would make it easier for mothers to select the information they receive so that they can manage the level of anxiety during this pandemic. The existence of maternal anxiety would increase the mother's fear of contracting COVID-19, so she would be reluctant to provide health services to children.

Mother's Knowledge

Behavior based on knowledge is more lasting than behavior without knowledge because knowledge is formed from a person's experience of sensing a certain object (Notoatmodjo, 2010). While knowledge in this study was categorized as good and lacking, good knowledge was shown by the respondent's ability to answer questions correctly. A mother's knowledge becomes the basis for her behavior to provide immunizations and vitamin A to children. According to the results of this study, it was known that the majority of respondents had good knowledge. Most respondents had graduated from college, so it was easy for respondents to understand and receive more information. Information was one source of knowledge. The better the reception of information, the greater the effect on a person's level of knowledge (Notoatmodjo, 2012). Good knowledge will make it easier for mothers to understand the importance of Posyandu activities for toddlers (Cahyaningrum and Setyanti, 2017).

The results of this study also showed that the knowledge level of more than half of the respondents was at a good level in the categories of knowledge related to health protocols, toddler health services during the pandemic, and toddler emergency conditions. However, the respondents with the least knowledge were in the category of knowledge related to health protocols, so there was a need for socialization related to health

protocols because 45% of the respondents had insufficient knowledge. Knowledge of mothers with less risk of 8.7 times caused incompleteness of immunization for toddler compared to mothers with good knowledge (Rahmawati and Wahjuni, 2014). Knowledge related to health protocols is needed in all aspects of life during this pandemic. This good knowledge made mothers feel safe visiting health facilities to provide health services for toddlers.

Mother's Attitude

An attitude is a closed behavior that appears after a person receives a stimulus (Irwan, 2017). The stimulus will provide a response in the form of an attitude in which the attitude has the potential to manifest in closed behavior and cannot be observed directly (Notoatmodjo, 2010). Attitude would direct a person to behave according to the attitude he had. According to the research results, the majority of respondents had a positive attitude regarding toddler health services and the application of health protocols during the pandemic. This was related to the characteristics of the majority of respondents who had a high level of education, so that it was easier for respondents to receive new information. Receiving good information would increase one's knowledge, and this knowledge is the basis for being positive (Notoatmodjo, 2012).

Research at Tasikmalaya City shows that a mother's knowledge has a significant relationship with her awareness of giving vitamin A (Maryam et al., 2018). Mothers' attitudes towards toddler health services and health protocols would have had an impact on the fulfillment of toddler health services during the pandemic. As per the results of a study in Surabaya, which showed that maternal attitudes have a significant relationship with immunization compliance (Yuda and Nurmala, 2018).

Fulfillment of Toddler Health Services

Fulfillment of toddler health services during a pandemic was a form of maternal compliance in immunizing and providing vitamin A on time. The results of this study showed that the majority of respondents obeyed in fulfilling the health services for toddler during the pandemic. Research conducted before the pandemic also showed similar results, that more than half of the responses received vitamin A supplementation and immunized accordingly (Maryam, Bachtiar and Mardianingrum, 2018). Fulfillment of toddler health services is needed to prevent growth problems and diseases in toddler (Ministry of Health of the Republic of Indonesia, 2020).

Immunization is needed to keep children protected from PD3I (a disease that can be prevented by immunization) (Hadianti *et al.*, 2015). Based on Regulation of The Minister of Health Republic Indonesia Number 43 years of 2016, giving vitamin A to children aims to keep children from deficient in vitamin A and optimal growth and development of children. These two services are mandatory services that must be accepted by children and accessible in all regions during a pandemic by implementing strict health protocols (Ministry of Health of the Republic of Indonesia, 2020).

Several regions made adjustments in providing these services such as Surabaya, Gresik and Jember. Posyandu activities in Surabaya City continue every month even though during the pandemic by door-to-door method. Posyandu cadres conduct home visits to monitor the growth of toddler and provide vitamin A (Melani, 2020). Apart from Surabaya, several Posyandu in Gresik and Jember also conduct scheduled and centralized Posyandu at Puskesmas by implementing health protocols (Sebtiarini, 2020).

The results of this study were compared with the coverage of health services for toddler before the pandemic, there was a significant decrease in immunization services, giving vitamin A and Posyandu. Immunization coverage, vitamin A supplementation and weighing of toddler at the Posyandu (D / S) in East Java Province in 2018 were 99.34%, 90.8% and 79.3% respectively (Dinas Kesehatan Provinsi Jawa Timur, 2019). This means that there has been a decrease in Immunization services, vitamin A supplementation and weighing of toddler at Posyandu during the Covid-19 pandemic were 20.59%, 17.05% and 39.3% respectively due to the closure of Posyandu activities. Posyandu services received by some respondents are a new form of adaptation during this pandemic. Posyandu is carried out by means of home visits by applying health protocols by posyandu cadres (Melani, 2020). This is done so that monitoring of the growth and development of toddler continues to run properly.

Relationship between Knowledge and Fulfillment of Toddler Health Services

The results of this study showed that the knowledge of mothers with the fulfillment of health services for toddlers during the pandemic had a significant relationship. This could happen because there were significant differences between respondents with good and poor knowledge. Respondents who had a good level of knowledge tended to fulfill toddler health services, while respondents with less knowledge tended not to fulfill toddler health services. Good knowledge will form the basis of one's thoughts in acting positively. (Notoatmodjo, 2012). Therefore, maternal knowledge was related to the fulfillment of toddler health services.

This study was in line with the research of Senewe, Rompas, and Lolong (2017), which shows that knowledge is one of the factors related to maternal compliance in providing basic immunization. Maternal knowledge also has a significant relationship with vitamin A administration to toddlers (Virgo, 2020). Other studies have shown that the better a mother's knowledge, the greater the chance she will comply with immunization (Yuda and Nurmala, 2018). Research in Kudus showed the opposite result, that maternal knowledge had no significant relationship with immunization compliance (Astuti and Nardina, 2020).

Knowledge of health protocols kept mothers calm in dealing with pandemic situations because they had the ground for making decisions in determining the right action. Knowledge is needed by someone as support for making decisions and actions towards the problems they face (Notoatmodjo, 2010). Mothers of toddlers were facing problems in fulfilling health services for toddlers during the pandemic. Toddlers, as it was previously known, were a vulnerable group of people to contracting COVID-19. Therefore, it was necessary to understand and apply health protocols in all aspects of life in order to safely access toddler health services.

This change in life structure did not prevent mothers from providing health services to their children. The existence of good knowledge about health protocols, toddler health services during the pandemic, and emergency conditions for toddlers made mothers able to make the right decisions for maintaining the health of toddlers during the pandemic. An example of a preventive step was to provide immunizations and vitamin A according to a schedule.

Mother's Attitude and Fulfillment of Child Health Services

A person's attitude could be determined by knowledge of objects that have positive and negative aspects. The greater the positive aspects, the more a positive attitude will be formed towards an object, and vice versa. Attitude is a form of behavior, but it is still closed to reactions to objects (Notoatmodjo, 2012). Attitudes are grouped into 3 domains because attitudes are broad views or reactions to an object. These domains are cognitive, affective, and connotative (Irwan, 2017).

The results showed that the mother's attitude was related to the fulfillment of health services for toddlers during the pandemic. This is because mothers who have a positive attitude fulfill more health services for toddlers than mothers who had a negative attitude. Most mothers who agree to continue giving immunizations in the midst of a pandemic do so because they fulfill the health services for their toddlers. In addition, mothers who have a positive attitude towards health services did not hesitate to immunize their children at health facilities in the midst of a pandemic.

The results of this study were the same as the research conducted in Wonokusumo, showing that there is a relationship between maternal attitudes and basic immunization status (Dillyana and Nurmala, 2019). Other studies have shown a relationship between maternal attitudes and the completeness of infant immunization (Nugrawati, 2019). The results of this study also revealed that the majority of respondents who had a positive attitude tended to have fulfilled toddler health services while respondents with negative attitudes tended to have unfulfilled toddler health services. This is supported by the research of Worang, Sarimin and Ismanto (2014), that found mothers with positive attitudes have the greatest chance of having positive behavior and mothers with negative attitudes have the greatest chance of having negative behavior in fulfilling basic immunization for toddlers.

CONCLUSION

The study's respondents were mostly age 26-35 years, did not work or they were housewives that graduated from university. They had good knowledge and positive attitudes. Knowledge and attitudes of mothers had a significant relationship with the fulfillment of toddler health services during the COVID-19 pandemic. Attitude variable was the most influential variable on the fulfillment of toddler health services. The better of the mother's knowledge and positive attitude, the more child health services would be fulfilled. So, it was necessary to intensify health promotion related to the importance of implementing health protocols and fulfilling health services for toddlers during the pandemic to prevent the emergence of PD3I and contracting COVID-19. It was highly recommended for further research to dig deeper information not only on internal factors but also on external factors and use a large number of sample to provide more representative findings.

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