


## Original Research

## The correlation between the mother's knowledge about toddler growth and development with the compliance of the mother's visit

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### Abstract

Good maternal knowledge will affect how mothers care for their children's health, nutrition and monitor their child's growth and development. One of the strategies carried out is to bring toddlers to Posyandu. The regularity of mothers visiting Posyandu will be very useful in monitoring the early detection of toddlers' growth, development, and health status so that mothers know the abnormalities of their children. This study aims to find out how mothers' knowledge about toddler growth and development with the compliance of mothers visiting Posyandu. This study used a correlational quantitative method with a cross-sectional approach. With the Saturated Sample Technique, the entire research sample was used as research respondents, as many as 30. The instrument used is a questionnaire. Primary data collection from questionnaires and secondary data was based on mothers' MCH/KMS books and Posyandu records. Data analysis using Chi-Square statistical test. The study results obtained an alternative value of the Chi-Square test, namely Fisher's Exact Test, with a p-value= 1,000, which means there is no correlation between the two variables. The mother's level of knowledge about toddler growth and development has nothing to do with the mother's obedience or disobedience to visit the posyandu regularly every month.

**Keywords:** compliance; growth and development; knowledge; posyandu

### 1. Introduction

The stunting prevalence rate in Indonesia in 2020 is estimated to decrease to 26.92%. The reduction in stunting rate is predicted to be 0.75% compared to 2019 (27.67%). This shows that the government's policy in encouraging the acceleration of stunting reduction in Indonesia has produced quite good results because in the previous year, in 2018, the stunting prevalence rate was still 30.8%. Despite the decline, strategies and hard work are still needed to achieve the target of reducing stunting prevalence set in the 2020-2024 RPJMN and Presidential Regulation No. 72 of 2021, which is 14% in 2024. Stunting prevalence must be reduced by 2.7% per year to achieve this. Prediction of stunting reduction in Indonesia is important to track progress in achieving the targets set in the National Strategy for Accelerating Stunting Reduction. However, the COVID-19 pandemic has prevented anthropometric measurements from being carried out (Pt. Ka Badan Litbangkes, 2021).

The participation of health workers and the community, both cadres in weighing toddlers, is very important in detecting undernutrition and malnutrition cases early. By diligently weighing toddlers, toddler growth can be monitored intensively (Hermawan, 2019). The regularity of mothers visiting Posyandu and weighing their toddlers to Posyandu will be very useful in monitoring the growth and development, nutritional status of toddlers, and early detection of growth and development abnormalities and health status so that further intervention can be determined immediately. In this regard, it is necessary for health workers, especially midwives, to review and provide appropriate

interventions in order to create a conducive environment for mothers in increasing maternal visits to Posyandu (Palupi et al., 2013)

In 2018, Indonesia recorded 283,370 posyandu, and 173,750 (61.32%) were declared active posyandu (Riskesdas, 2019). One of the indicators used in assessing the success of the toddler weighing program at posyandu is the number of toddlers weighed in all posyandu (DatauS). DatauS is the number of toddlers who report in one work area at a certain time divided by the number of all toddlers in all posyandu who report in one work area at a certain time (Kemenkes RI, 2016, p.148). According to the Indonesian Basic Health Research (Riskesdas) results in 2018, the proportion of weight weighing of children under five is 54.6% (Kemenkes RI, 2018).

Based on the Yogyakarta Health Office 2020 profile with 2019 data, the Infant Mortality Rate is death that occurs in infants/children aged 0-59 months (infants and toddlers). In 2019, the under-five mortality rate in Yogyakarta City increased from 1.26 per 1,000 live births to 3.00 per 1,000 live births. The cause of death in toddlers is sepsis, dehydration, congenital abnormalities, meningitis, and diarrhea. Moreover, one of the efforts made in reducing the Infant Mortality Rate is Training and Strengthening officers in the management of MTBS / MTBM, SDIDTK, and PMBA, Strengthening the Implementation of SDIDTK, BKB, and PAUD integration in Posyandu and Strengthening the Immunization Program (Kota Yogyakarta, 2020).

Good maternal knowledge will affect how mothers care for their children, including attention to growth patterns. The regularity of mothers visiting Posyandu and weighing their toddlers to Posyandu will be very useful in monitoring the growth and development, and nutritional status of toddlers as well as early detection of growth and development abnormalities and health status of toddlers so that further intervention can be determined immediately (Lara et al., 2022).

Research conducted by Latuconsina et al. (2018) entitled "The Correlation of Knowledge and Attitudes of Toddler Mothers Towards Toddler Visits in Gondanglegi Village" found that after the data was collected, it was analyzed using a chi-square test with a confidence number ( $\alpha = 0.05$ ). The data are presented in cross-tabulated form with assessment criteria:  $H_0$  is accepted if significant  $p < 0.05$ ,  $H_0$  is rejected if significant  $p > 0.05$ . The results showed no correlation between the knowledge of toddler mothers and toddler visits in Gondanglegi Village with  $p$  value (0.539), and there was a correlation between the attitude of toddler mothers and toddler visits in Gondanglegi Village with  $p$  value (0.011). Based on this research, it can be suggested that mothers of toddlers understand more about the importance of visits at Posyandu, which are useful for monitoring the development of their children. (Latuconsina et al., 2018).

Preliminary study of 8 mothers who had toddlers at Posyandu Tempuyung 13 and Tempuyung 19 diligently and routinely came to Posyandu to weigh their children unless there were urgent activities such as going out of town and the child was sick. However, when conducting interviews, 5 out of 8 mothers could not or were confused about growth and development and how the child's growth and development process occurs, even though the mother said it is routine to bring her child to the Posyandu every month. Therefore, researchers are interested in whether mothers' knowledge correlates with their obedience to bring their toddlers to posyandu in the Karang Kajen Area, Brontokusuman Village, Yogyakarta.

## **2. Research Methods**

The type of research used in this research is correlational quantitative with a cross-sectional design. This study's population was all mothers with toddlers aged 1-5 years who were in Rw 13 and Rw 19 in the Brontokusuman Village Area Yogyakarta. This study used the Saturated Sample technique where the entire population was sampled, namely as many as 30 respondents. The data source used in this study is primary data, namely from questionnaires made by themselves, and

validity and reliability tests have been carried out using samples from different Posyandu secondary data from the mother's MCH book and records from each Posyandu where the research is conducted. The questionnaire contains seven (7) questions about toddler growth and development in closed questions, where the mother only ticks the wrong or correct column. Data analysis using the Chi-Square statistical test by taking its alternative value, Fisher's Exact Test, with a significance value of  $p > 0.05$  for the hypothesis ( $H_0$ ), is accepted. Fisher's Exact Test is a nonparametric statistical test used to test two independent samples or to determine whether there is a correlation between two nominal or ordinal scaled variables and used for small populations.

### 3. Results and Discussion

#### 3.1. Presentation of Univariate Analysis Data

**Table 1.** Frequency distribution of respondent characteristics

Characteristics of Respondents	Total (n)	Percentage (%)
<b>Educations</b>		
No school	1	3.3
Elementary	1	3.3
Junior high school	5	16.7
High School/SMK/MA	12	40.0
Bachelor/Diploma	11	36.7
<b>Occupations</b>		
Housewife	20	66.7
Labor	2	6.7
Self-employed/Civil servant	7	23.3
Lecturer	1	3.3
<b>Ages</b>		
17 - 30	9	30.0
31 - 40	17	56.7
41 - 50	4	13.3

Source: Primary data, 2022

Table 1 presents the calculation results based on the level of education, occupation, and vulnerable age of the mother. In the results of calculating mothers' education level, it was found that the number of mothers who graduated from High School/SMK/MA had the highest number, namely 12 people with 40%. Easier access to information is now also one way to increase knowledge and information for toddler health and mothers' understanding of going to posyandu with their toddlers (Ayu et al., 2020)

In the calculation results for work, homemakers have the highest number, namely 20 people, with a percentage of 20%. This states that it is true that mothers have more time to drive their toddlers to come to visit each month, and mothers pay more attention to their toddlers. Work gives mothers limited time with toddlers, so the mother's attention to child development becomes reduced, and the mother cannot control the child's food intake properly (Amelia, 2020). Fauzia et al. (2019), their research explained that their nutritional intake greatly influences the nutritional status of toddlers. Mothers need more time with children to give attention and good nutrition. The condition of mothers with jobs affects the reduced time of mothers with children. As a result, it will also affect nutritional intake, monitoring development, and growth.

Meanwhile, for the results of age calculations, it was found that vulnerable maternal aged 31-40 had the largest number, namely 17 people with a percentage of 56.7%, where the average maternal age had entered late adulthood. A person's age is closely related to the education and knowledge of cadres about the advantages or importance for toddlers to come to posyandu, where the more mature a

person is, the more ability and criticality in thinking will determine each person's attitude and health behavior. (Depkes, 2014)

### 3.2. Ppresentation of Bivariate Analysis Data

**Table 2.** The correlation between knowledge and obedience of mothers visiting posyandu

Mothers knowledge	Visit obedience				Total		P Sig-2 Tailed
	Less Compliant		Obedient		n	%	
	n	%	n	%			
Fairly	0	0.0	4	100.0	4	100.0	1.000
Good	3	11.5	23	88.5	26	100.0	
<b>Total</b>	<b>3</b>	<b>10.0</b>	<b>27</b>	<b>90.0</b>	<b>30</b>	<b>100.0</b>	

Source: Primary & secondary data, 2022

Based on the study's results, it was found that mothers' knowledge about toddler growth and development does not correlate with mothers' compliance to come to posyandu. The calculation results obtained the Fisher's Exact Test value from the Chi-Square test of  $p\text{-value} = 1,000$ . The result of the calculation is that the two variables studied do not correlate because of the value ( $p > 0.05$ ), so the conjecture or hypothesis ( $H_0$ ) is accepted. This proves that mothers understand the importance of monitoring the growth and development of their toddlers. For mothers with enough knowledge, this is not a reason for mothers not to come to Posyandu. This proves that there are other factors, such as cadre support, health workers, family support, and maternal awareness of the importance of monitoring the growth and development of their toddlers. Conversely, some mothers have good knowledge but do not routinely go to posyandu, considering that some also work as civil servants and lecturers. In the process of this study, while filling out the questionnaire, researchers checked the mother's MCH / KMS book and asked the mother the reason why she did not come to the posyandu, there were some of the mothers who said they did not come because their children were sick, went home or out of town, and when they were busy with work so they did not have time to come to weigh at the posyandu.

When Indonesia has entered the era of society 5.0, which is interpreted by high competition in various sectors that are in direct contact with the needs of the community because, at this time, people are led to coexist with technology and master and utilize technology, so that information obtained from both formal and non-formal education can provide short-term knowledge (immediate impact) and produce changes and increase in knowledge. Communication facilities such as television, radio, newspapers, magazines, counseling, and others have a major influence on the formation of opinions and beliefs of people because the reception of information will be much easier and can be done at any time. Another important aspect of using media is that it helps clarify learning messages. Information conveyed orally is sometimes not fully understood, especially if it is not enough to explain the material. Here is the role of the media as a tool to clarify learning messages. (Ismarwati in Safitri et al., 2021)

In the Web 2.0, Health 2.0, or Medicine 2.0 era, people are increasingly turning to the Internet rather than going directly to the doctor to get information about their health. Exciting virtual entertainment websites such as YouTube, Facebook, MySpace, Twitter, and Second Life have provided their effectiveness and power in extending well-being data to support improved well-being online, as well as mobile technology, blogs, and image sharing. (Leonita & Jalinus, 2018)

Therefore, the mother's ability to obtain information is not seen from her high education but can also be from her experience and the mother's ability to understand a condition in her child. Because knowledge is not only obtained from studying at an official institution but can also be obtained anywhere. This theory is also corroborated by research conducted by Idil Fitri in 2010, which stated

that there was no significant correlation between respondents' education and the activeness of mothers' visits to posyandu, where researchers obtained p-value results of 1.0 from the Chi-Square statistical test conducted. (Fitriani, 2010)

As a midwife, which is one of the duties of serving mothers and children comprehensively, it has an important role in monitoring children's growth and development. So that cases of stunting or malnutrition and death in infants and toddlers are decreasing yearly in Indonesia. The participation of health workers and the community, as cadres, in weighing toddlers is very important in the early detection of undernutrition and malnutrition cases. By diligently weighing toddlers, toddler growth can be monitored intensively (Hermawan, 2019). The regularity of mothers visiting Posyandu and weighing their toddlers to Posyandu will be very useful in monitoring the growth and development and nutritional status of toddlers and early detection of growth and development abnormalities and health status so that further intervention can be determined immediately. In this regard, it is necessary for health workers, especially midwives, to review and provide appropriate interventions in order to create a conducive environment for mothers in increasing maternal visits to Posyandu (Palupi et al., 2013)

Good family support will encourage mothers to come to the posyandu every month regularly. While family support that is not good or more prohibitive will be shown, such as the husband not sending his wife to monitor the growth and development of his toddler to the posyandu, other families do not replace the mother taking the toddler to the posyandu when the mother is unable and lack of knowledge from some families about the importance of monitoring the growth and development of toddlers (Amalia et al., 2019)

According to researchers, the support of husbands and other families on the importance of their children's health influences mothers to go to posyandu regularly. Based on the culture in Indonesia, it is enough to feed the child so that it will be healthy and fine. Therefore, if some parties do not support the activities of mothers and children to visit posyandu, it will affect the growth and development of their toddlers.

One factor that encourages mothers to visit posyandu toddlers is cadres and health workers. Being cadres, in addition to helping health workers, they mobilize mothers to visit posyandu to weigh and measure toddlers, check growth and development, and source information for mothers. The role of skilled and active cadres will get a positive response from mothers who have toddlers so that mothers of toddlers want to go to posyandu (Fitriyah et al., 2019)

This is in line with the study's results that the level of maternal satisfaction at Posyandu Melati 9 Puskesmas Liliba Kupang City is known to most respondents with the Very Satisfied category, which is as many as 20 (51%) respondents. All of this is supported by the satisfaction of mothers of toddlers with the services provided by cadres, including interaction/communication between cadres and mothers of toddlers, the presence of cadres before the activity begins, the completeness of posyandu facilities and infrastructure, and others. (Taek et al., 2018)

Based on the experience gained by researchers during research in both posyandu, it was found that the facilities provided to mothers and toddlers were adequate and met the standards of posyandu. Both from the completeness of the tool, the function of the tool, five complete tables in their order, the ability to measure and weigh, and accuracy in filling the MCH / KMS book. In an interview conducted by the head of the posyandu, if the mother does not come to the posyandu twice in a row for no reason, several cadres will come to the home of the mother and toddler and convince them that it is important to come to the posyandu regularly. During the pandemic, posyandu activities did not run as they should, but cadres still visited each house on different scales.

The results of this study are in line with research conducted by Latuconsina et al. in 2018 with the title "The Correlation of Knowledge and Attitudes of Toddler Mothers Towards Toddler Visits in Gondanglegi Village" It was found that after the data was collected, it was analyzed using a chi-

square test with a confidence number ( $\alpha = 0.05$ ). The data are presented in cross-tabulated form with assessment criteria:  $H_0$  is accepted if significant  $\rho < 0.05$ ,  $H_0$  is rejected if significant  $\rho > 0.05$ . The results showed no correlation between the knowledge of toddler mothers and toddler visits in Gondanglegi Village with  $\rho$  value (0.539), and there was a correlation between the attitude of toddler mothers and toddler visits in Gondanglegi Village with  $\rho$  value (0.011). Based on this research, it can be suggested that mothers of toddlers understand more about the importance of visits at Posyandu, which are useful for monitoring the development of their children (Latuconsina et al., 2018).

The absence of a correlation between the two variables studied but having the same topic was also carried out by Fauzi from a nursing study entitled "Factors Affecting the Compliance of Mothers' Visits to Posyandu Balita in Mentuda Village, Lingga District in 2020" in the research conducted obtained The results of the analysis obtained from data processing using the Spearman Rank test showed that there was no correlation between knowledge/education and posyandu visit compliance  $\rho$  value=0.791, no correlation between maternal motivation and posyandu visit compliance with  $\rho$  value= 0.609, no correlation between family support and posyandu visit compliance with  $\rho$  value= 0.590 (Fauzi, 2020).

#### 4. Conclusion

Based on the study's results, the % of mothers with good knowledge, a percentage of 86.7%, is far more than mothers with sufficient knowledge, with a percentage of 13.3%. The bivariate analysis results showed that mothers' knowledge about toddler growth and development had no correlation with the mother's obedience to posyandu, known from the Fisher's Exact Test value of  $p = 1,000$  where ( $p > 0.05$ ). Researchers expect parents, especially mothers, to continue to monitor the growth and development of their toddlers and be aware of abnormalities experienced by toddlers, such as stunting or other growth and development disorders, by continuing to add information and knowledge related to the golden period of their toddlers. Researchers also hope to use this research as a reference to conduct the same or different research from better methods, such as interviews (qualitative), with a wider scope of research sites and more samples. Further researchers can also examine other factors from those used in this study, such as maternal motivation factors, family support, environmental support, etc.

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