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**Research Articles** 

# The Influence of Internal Factors of Utilization of Posyandu Toddlers in the Working Area of the Sipiongot Health Center, Padang Lawas Utara Regency

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# ABSTRACT

**Background:** Posyandu is an important means of disease prevention and monitoring of the growth of toddlers. However, the level of community participation in Posyandu still varies, which is allegedly influenced by several internal factors.

**Objective:** This study aims to analyze the influence of internal factors on the utilization of Posyandu for toddlers in the working area of the Sipiongot Health Center, Padang Lawas Utara Regency.

**Methods:** This study used a cross-sectional study design on mothers under five who used Posyandu Madya and Purnama services in the working area of the Sipiongot Health Center. The sample was taken by accidental sampling technique for 60 days, involving 81 mothers under five. Data was collected through a questionnaire distributed to mothers of toddlers who came to the Posyandu. Data analysis was carried out using the chi-square method and logistic regression.

**Results:** This study showed that internal factors such as education (p = 0.001), occupation (p = 0.001), and knowledge (p = 0.001) had a positive relationship with the utilization of Posyandu for toddlers. Of the three variables, knowledge shows the strongest influence on the utilization of Posyandu with an Exp(B) = 15.312 value.

**Conclusion:** Internal factors have an important role in encouraging the use of Posyandu for toddlers. Therefore, increasing public knowledge and awareness about the benefits of Posyandu is urgently needed to ensure the optimization of sustainable health services for toddlers.

Keywords: Posyandu Utilization; Toddlers; Knowledge; Employment

# <u>MPPKI</u>

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#### **INTRODUCTION**

Posyandu (Integrated Service Post) for toddlers is one of the efforts of the health service-based community that prioritizes community participation in promotive and preventive efforts for children's health. In the world, access to basic health services for children is still a significant issue, especially in developing countries (1). According to the World Health Organization (WHO), more than 5 million children under the age of five die each year, and most of these deaths can be prevented through basic health services and community support (2). Posyandu exists as a solution to overcome the limited access to formal health services in various countries, especially in rural areas far from health facilities (3). Child health issues in Asia are also a major focus on the health development agenda, especially in countries with high birth rates and child populations, such as India, Pakistan, and the Philippines. Programs similar to posyandu, which rely on communities to provide basic health services, have been implemented with their own local variations. For example, in India there is the Anganwadi program, which aims to provide nutrition and health support to pregnant women and children. This community-based program is recognized as effective in monitoring children's growth, detecting health problems early, and raising awareness of the importance of children's health care. The challenge faced is how to maintain community participation and provide adequate education in diverse socio-economic conditions (4). In addition, research in Bangladesh shows that community clinics have a positive impact on the provision of basic health services such as immunization, but maternal and child health services still need to be improved. This shows that the available facilities need to be continuously improved to meet the needs of the community (5). In Ethiopia, research on community-based health insurance schemes found that participation in these programs increased access to child health services, especially among low-income families in rural areas (6).

Posyandu in Indonesia has been known since the 1980s as a program that provides access to basic health services, especially for mothers and children in all regions, including in remote areas. Based on the 2019 Indonesian Health Profile, there are 296,777 posyandu throughout Indonesia, consisting of 63.6% active posyandu and 6.0% primary posyandu, 30.4% intermediate posyandu, 42.2% full posyandu, and 21.4% independent posyandu (7). The Indonesian government together with community organizations and international institutions have developed posyandu as an integral part of the national health system, especially to support the achievement of health development targets. Based on data from the Ministry of Health, posyandu has a significant role in reducing the mortality rate of infants and toddlers in Indonesia. However, challenges still arise related to the low awareness and utilization of posyandu in several regions, due to the lack of education, limited health workers, and lack of family support in prioritizing posyandu visits (8). Regionally, in the Province of North Sumatra in 2022 there are 9,050 posyandu (9). Based on the 2023 Padang Lawas Utara Regency Health Office Profile report, it is known that there are 12 sub-districts and 17 health centers, with the number of posyandu in the Sipiongot health center area there are 54 posyandu (10). In North Padang Lawas Regency in particular, posyandu plays an important role in monitoring the health of children under five. However, as in other rural areas, several internal factors affect the participation and utilization of posyandu. These factors include the level of education and knowledge of mothers about the benefits of posyandu, public trust in traditional health services, and limited access to transportation (11). Many mothers are reluctant or do not have time to take their children to posyandu due to busy work or lack of understanding of the importance of routine check-ups for their children's health (12).

The problem of using posyandu is also caused by low support from other family members, such as husbands or extended families. Family support plays an important role in the mother's decision to bring her child to the posyandu. In many cases, mothers who have the support of their husbands or extended family are more motivated to attend posyandu activities. In contrast, mothers who lack support tend to ignore these services because they feel that there is no significant encouragement or value in their daily lives. This factor reflects the importance of the family's role in ensuring that children get access to proper health care (3). Economic factors are also an obstacle to the use of posyandu. In areas with high poverty rates, people tend to focus more on meeting their daily basic needs rather than allocating time for activities that do not generate direct income, such as posyandu visits. As a result, children from underprivileged families are often not monitored regularly, which has the potential to cause long-term health problems (13). To overcome this obstacle, a holistic approach is needed that not only emphasizes the importance of posyandu for children's health, but also builds awareness of the importance of the health of toddlers in the long term (14). Health counseling involving all family members, especially fathers, can be an effective strategy in increasing family support for the posyandu program. This approach has been successfully implemented in many countries, demonstrating that improving overall understanding of the family has a positive impact on children's health (15). By strengthening the role of posyandu as part of the public health system, the government and related parties are expected to improve access and quality of basic health services in rural areas. Policies that support the provision of adequate facilities, training of health cadres, and community empowerment are important steps in ensuring that every child in rural areas, including those in the work area of the Sipiongot Health Center, has access to the health services they need. A study in Uganda found that close access to community health workers (CHWs) increased the use of health

services for children, especially in rural areas where distance is a significant constraint (16).

Posyandu (Integrated Service Post) for toddlers has an important role in promotive and preventive efforts for children's health, especially in rural areas. In Padang Lawas Utara Regency, especially in the working area of the Sipiongot Health Center, the use of posyandu for toddlers is crucial to monitor children's growth and development and detect early health problems that may occur in toddlers. However, there are various internal factors that affect the level of utilization of posyandu by the community, such as mothers' knowledge of the importance of posyandu, family health awareness, family support, and socio-economic conditions (17). Lack of utilization of posyandu can potentially increase the risk of health problems in toddlers, which ultimately has an impact on their quality of life and future (18). This study underlines that programs like this can be a model to improve access to health for toddlers in remote areas, including the work area of the Sipiongot Health Center. Overall, Posyandu is not only a center for health services for toddlers, but also a symbol of the power of the community in maintaining and improving the quality of life of children (19). By overcoming existing obstacles through synergy between the community, government, and health institutions, it is hoped that posyandu in Indonesia, including in Padang Lawas Utara Regency, can be more optimal in carrying out its role to achieve sustainable child health development goals. Therefore, this study aims to analyze the influence of internal factors on the utilization of posyandu for toddlers in the region and can be the basis for related parties in increasing the participation and utilization of posyandu for toddlers through community empowerment strategies and increasing health awareness at the family level.

### **METHOD**

This study is a type of quantitative research with a cross-sectional study design, which aims to analyze the influence of dependent and independent variables simultaneously in a certain period of time. This research was conducted in the working area of the Sipiongot Health Center, Padang Lawas Utara Regency. The population of this study is all mothers of toddlers who use Posyandu Madya and Purnama services in the working area of the Sipiongot Health Center. The research sample was taken using an accidental sampling technique, namely by selecting mothers of toddlers who were present at the posyandu during the data collection period which lasted for 60 days, so that a sample of 81 respondents was obtained. The instrument used in this study is a structured questionnaire prepared based on internal and external variables related to the utilization of posyandu for toddlers. This questionnaire is designed to collect data related to factors such as maternal knowledge and other factors that can affect the use of posyandu. The validity and reliability of the questionnaire are tested before use to ensure that this instrument is suitable for measuring the variables being studied and providing consistent results.

The data collection process was carried out by distributing questionnaires to respondents at the Madya and Purnama posyandu. The researcher ensured that each mother of a toddler who was a respondent understood the purpose and content of the questionnaire before answering the questions. In this study, all procedures are carried out while maintaining the principles of research ethics, such as informed consent, confidentiality of personal data, and the freedom of respondents to choose whether or not to participate in this research without any pressure. Respondents were given an explanation regarding the benefits and objectives of the research, and were given assurances that the information provided would be kept confidential and only used for research purposes. Data analysis using chi-square and regression tests and presentation of data in the form of tables accompanied by explanations.

# RESULTS

Characteristics of Toddler Mothers	n	Percentage		
Age Group (Years)				
25 - 27	3	3,7		
28 - 30	16	19,8		
31 – 33	12	14,8		
34 - 36	13	16,0		
37-39	8	9,9		
40 - 42	7	8,6		
43 - 45	12	14,8		
46 - 48	10	12,3		
Sum	81	100		

 

 Table 1. Distribution of Characteristics of Toddler Mothers in the Working Area of the Sipiongot Health Center, Padang Lawas Utara Regency

Education			
Less	25	30,9	
Enough	56	69,1	
Sum	81	100	
Work			
Work	28	34,6	
Not Working	53	65,4	
Sum	81	100	
Knowledge			
Less	34	42,0	
Good	47	58,0	
Sum	81	100	

Table 1 proves that the characteristics of mothers under five in terms of age, most of the respondents are in the range of 28 to 30 years, which is as much as 19.8%. Meanwhile, other age groups are distributed in various ranges, such as 31-33 years (14.8%), 34-36 years (16.0%), as well as a small number in the age range of 25-27 years (3.7%) and 46–48 years (12.3%). Judging from the level of education, the majority of mothers have sufficient education, reaching 69.1% of the total respondents. The rest, 30.9%, have a relatively poor education. In terms of work, the majority of mothers do not work, which is 65.4%, while working mothers amount to 34.6%. The level of knowledge of mothers is mostly, i.e. 58.0% of the respondents, has good knowledge, while 42.0% have less knowledge.

	Utilization of Posyandu for Toddlers					$\mathbf{X}^2$
Education	Underutilization		Utilize		Sum	
	n	Percent	n	Percent	-	<b>(p)</b>
Less	22	88,0	3	12,0	25	37,852
Enough	9	16,1	47	83,9	56	(0,001)
Sum	31	38,3	50	61,7	81	
Work						
Work	24	85,7	4	14,3	28	40,770
Not Working	7	13,2	46	86,8	53	(0,001)
Sum	31	38,3	50	61,7	81	
Knowledge						
Less	29	85,3	5	14,7	34	54,842
Good	2	4,3	45	95,7	47	(0,001)
Sum	31	38,3	50	61,7	81	

**Table 2.** The Influence of Education, Employment, and Knowledge on the Utilization of Posyandu for Toddlers in the Working Area of the Sipiongot Health Center, Padang Lawas Utara Regency

Table 2 proves that the educational variable, of the 25 mothers under five who have less education, as many as 88.0% do not use the toddler posyandu, while 12.0% use it. On the other hand, of the 56 mothers with sufficient education, only 16.1% underused the five-year-old posyandu, and most (83.9%) took advantage of it. The results of the statistical analysis showed that the calculated X<sup>2</sup> value was 37.852, which was greater than the X<sup>2</sup> table (3.841), with a p-value of 0.001 which was smaller than  $\alpha = 0.05$ . This shows that education has a significant effect on the use of posyandu for toddlers. In terms of occupational variables, of the 28 mothers under five who worked, as many as 85.7% did not use the posyandu, while only 14.3% used it. On the other hand, of the 53 mothers who do not work, only 13.2% do not use the posyandu, while 86.8% use the service. The results of statistical analysis produced a calculated X<sup>2</sup> value of 40.770, which is greater than the X<sup>2</sup> table (3.841), and a p-value of 0.001 which is smaller than  $\alpha = 0.05$ . This shows that work also has a significant influence on the utilization of posyandu for toddlers.

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Meanwhile, in the knowledge variable, of the 34 mothers who had less knowledge, as many as 85.3% did not use the posyandu, and 14.7% used it. On the other hand, of the 47 mothers with good knowledge, only 4.3% did not use the posyandu, while 95.7% used it. The results of statistical analysis showed that the calculated X<sup>2</sup> value was 54.842, which was greater than the X<sup>2</sup> table (3.841), with a p-value of 0.001 which was smaller than  $\alpha = 0.05$ . This indicates that knowledge has a significant influence on the utilization of posyandu for toddlers.

Variable	В	SE	Sig	Exp	95	% C for
				(B)	EXP (B)	
					Lower	Upper
Education	-1,237	1,506	0,411	0,290	0,015	5,556
Work	1,138	1,504	0,449	3,121	0,164	59,519
Knowledge	2,729	0,916	0,003	15,312	2,543	92,210

 Table 3. Multivariate Analysis of the Influence of Utilization of Posyandu Toddlers in the Working Area of the

 Siniongot Health Center, Padang Lawas Utara Regency

Table 3 proves the results of a multivariate analysis regarding the influence of education, employment, and knowledge on the utilization of posyandu for toddlers in the working area of the Sipiongot Health Center, Padang Lawas Utara Regency. In the education variable, the regression coefficient (B) of -1.237 indicates that mothers with less education levels tend to have a lower chance of using posyandu compared to mothers with higher education, although this result is not statistically significant (p = 0.411). The Exp(B) or odds ratio of 0.290 indicates that mothers with low education have 0.290 times the chance of using posyandu compared to those who are adequately educated, but the 95% confidence interval (CI) for Exp(B) is 0.015 to 5.556, indicating a wide prediction inaccuracy on this variable. The occupational variable showed a B coefficient of 1.138, which means that working mothers have a greater chance of using posyandu than those who do not work. However, this result was also not significant (p = 0.449), so there was no strong evidence that the mother's employment status significantly affected the utilization of posyandu. An Exp(B) value of 3.121 shows that working mothers have a 3.121 times greater chance of using posyandu compared to non-working mothers, with a 95% CI between 0.164 to 59.519.

Meanwhile, the knowledge variable showed significant results with a B coefficient of 2.729 and p = 0.003, which means that there is a significant influence of knowledge on the utilization of posyandu. An Exp(B) value of 15,312 shows that mothers with good knowledge have a 15,312 times greater chance of using posyandu compared to those with less knowledge. The 95% confidence interval for Exp(B) on this variable is 2,543 to 92,210, which indicates a more definite estimate. Overall, this multivariate analysis shows that of the three variables analyzed, knowledge has a significant influence on the utilization of posyandu for toddlers. Education and employment do not have a significant influence in this model, although they do show an increasing or decreasing trend in the utilization of posyandu. This result emphasizes the importance of maternal knowledge in encouraging the use of posyandu services for toddlers.

# DISCUSSION

# The Influence of Education on the Utilization of Posyandu for Toddlers

Education has a significant role in increasing the effectiveness of public health programs, such as the Toddler Posyandu. The Toddler Posyandu is one of the programs designed to improve the health of toddlers through basic health services, health education, and monitoring the growth of toddlers. The findings of this study show that education has an influence on the utilization of posyandu for toddlers, although in the multivariate analysis the influence is not statistically significant. Descriptively, mothers who have enough education are more likely to use posyandu services than mothers who have less education. This is in line with the theory that education is one of the factors that affect individual health behavior, including in the use of basic health services such as posyandu. Higher education is generally associated with increased understanding and awareness of the importance of routine health check-ups for children, thus motivating mothers to be more active in participating in child health programs (20).

Previous research supports these findings. For example, research by Sari et al. (2022) shows that mothers with higher levels of education are more likely to benefit from child health services compared to mothers with low education (21). In the study, it was found that mothers with education above the secondary school level better understood the importance of posyandu services in monitoring the growth and development of their children. These findings explain that education facilitates access to better health information, which ultimately affects mothers' decisions to utilize child health services more optimally. Studies in Pakistan also confirmed that children of mothers

with higher education are more likely to receive health services such as treatment for diarrhoea and fever, as educated mothers better understand the importance of access to these services (21). They reported that mothers with better education tended to have higher knowledge and awareness about the importance of posyandu services, so they were more active in utilizing these services. The results of this study reinforce the assumption that education influences health behavior through increased maternal understanding and awareness. Higher education allows mothers to better understand the health risks in toddlers as well as the benefits of regular health monitoring through posyandu (18).

The educational factor is also related to access to information. Mothers with higher education tend to have better access to various sources of health information, whether from the mass media, the internet, or health education programs. This adequate information allows mothers to make more informed decisions regarding their children's health, including in utilizing posyandu services. In addition, mothers who have enough or higher education usually have better literacy skills, so they are better able to understand the information conveyed by health workers at the posyandu (21). This plays an important role in building mothers' trust in the health services provided. Education is also related to the mindset and attitude towards health. Educated mothers tend to have a higher awareness of the importance of prevention rather than treatment, so they are more encouraged to use posyandu services regularly as an effort to prevent health problems in children. In contrast, mothers with low education may have a different view, where health check-ups may only be considered important when the child shows symptoms of illness. As a result, they may not see the benefits of preventive and routine posyandu visits (22). Furthermore, higher education is usually also associated with better time management skills. Educated mothers tend to be more able to manage their time between household chores and posyandu activities, so they are more likely to regularly visit posyandu without feeling burdened by other tasks. In contrast, mothers with low education may feel that posyandu activities can interfere with their daily activities, especially if they do not understand the importance of regular health check-ups for toddlers (22).

The findings of this study also reflect the need to increase awareness of the importance of posyandu among mothers with low education. Educational campaigns tailored to the level of understanding of mothers can help increase the participation of posyandu among this group. Basic knowledge about the benefits of posyandu needs to be introduced in a way that is easy to understand and relevant to their daily lives. With the right approach, mothers with low education can also be encouraged to be more active in using posyandu for the health of their toddlers (22). In addition, the importance of support from health workers at posyandu in providing easy-to-understand health information cannot be ignored. Mothers with low education may need a simpler and more targeted explanation of the importance of posyandu services (23). Providing direct and interpersonal information from health workers at posyandu can help reduce the information gap that mothers with low education levels may have, thereby increasing their likelihood of using posyandu (22). Overall, while education may not be the only factor influencing the utilization of posyandu, education plays an important role in shaping maternal health behavior. The higher the level of education of mothers, the more likely they are to have better knowledge and awareness about the importance of children's health, which encourages them to be more active in using posyandu (24). However, efforts to increase the use of posyandu can not only depend on the level of education of mothers, but also require support from health workers, families, and the community that encourages the active participation of all mothers under five in posyandu activities (22).

#### The Effect of Work on the Utilization of Posyandu for Toddlers

Work has a significant influence on the utilization of Posyandu Toddlers, which is a public health program aimed at toddlers and pregnant women in Indonesia. One of the main impacts is the time limitations faced by parents or guardians of toddlers due to the demands of their work. Jobs with tight schedules or long trips often make it difficult for parents to attend Posyandu activities regularly. This study supports the view that work can influence parental involvement in child health programs, such as Posyandu (25). Studies in the United States show that the demands of work on parents negatively impact their ability to engage in community health services for children, especially when the time and location of services are less flexible (26). The lack of involvement of most mothers in formal work indicates that they are more at home, which has the potential to increase their participation in posyandu activities. However, the level of utilization of posyandu can also be influenced by other factors, such as family support and understanding of the importance of the service (27).

The findings of this study show that the work of mothers has an influence on the utilization of posyandu for toddlers, although in statistical analysis this influence is not significant. Descriptively, mothers who do not work tend to use posyandu more than working mothers. This can be explained because mothers who do not work have more flexible time to take their children to the posyandu. Meanwhile, working mothers may have time constraints due to work obligations, which causes them to be less active in posyandu activities. Work is one of the factors that affect the time and priorities of mothers in accessing health services for toddlers. Additional studies in Uganda show that interventions involving flexible service hours and community support significantly improve access to and utilization

of child health services among families with working parents, particularly in rural areas (28). Research conducted by Kurniawati et al. (2018) supports this finding. They found that working mothers were less likely to attend posyandu compared to non-working mothers. This is due to work schedules that sometimes clash with posyandu schedules, so working mothers often find it difficult to take time to take advantage of posyandu services. The study concluded that the availability of time and schedule flexibility greatly influenced the decision of mothers to attend posyandu activities (29). In addition, mothers who do not work have a higher level of utilization of posyandu than working mothers. They noted that mothers who did not work tended to be more involved in community activities, including posyandu, because they had more free time. In contrast, working mothers have to divide their attention between work and family, which often leads to them giving less priority to posyandu activities. This study highlights that the role of work is a barrier in the use of community-based health services (27).

In addition to time, work also affects the mindset and priorities of mothers towards health services. Working mothers may focus more on professional responsibilities, so posyandu is considered less urgent, especially if the child does not show signs of health problems. On the other hand, mothers who do not work are more likely to prioritize posyandu as part of their childcare routine. This shows that the status of work not only affects the availability of time, but also how mothers view the importance of monitoring children's health in posyandu (30). However, it is important to note that not all working mothers neglect posyandu services. Some working mothers still try to use the Posyandu service in various ways, such as asking for help from family members to bring their children to the Posyandu. Here, family support plays an important role in ensuring that children continue to have access to posyandu health services even though mothers work. This support factor can help reduce the negative impact of mothers' work on the use of posyandu (31). Overall, although mothers' work has the potential to hinder the use of posyandu, solutions such as more flexible scheduling or support from family can help working mothers still be able to take advantage of posyandu. Thus, a more inclusive approach is needed in posyandu services, which takes into account the diversity of mothers' conditions, both working and non-working (32). These findings confirm that work plays a role in influencing access and utilization of posyandu, but with the right support, working mothers can still actively participate in utilizing these services for the health of their children under five (33).

#### The Influence of Knowledge on the Utilization of Posyandu for Toddlers

Knowledge has an important role in the use and involvement in the Toddler Posyandu program. Parents or guardians who understand well the importance of children's health care and the benefits of posyandu activities tend to be more active in using this service. A good level of knowledge among the majority of respondents is the main capital to increase the use of posyandu, because sufficient understanding of the importance of health of toddlers is believed to be able to encourage mothers to more actively participate in child health programs held at posyandu (34). The findings of this study show that maternal knowledge has a significant influence on the utilization of posyandu for toddlers. Mothers who have good knowledge about child health and the importance of posyandu tend to use this service more often than mothers who have low knowledge. Good knowledge helps mothers understand the benefits of posyandu, such as early detection of health problems, monitoring of children's growth, and timely vaccination. With this understanding, mothers are more motivated to actively participate in posyandu activities to support the health of their children under five (35). In the study, mothers who have a thorough understanding of the importance of monitoring children's health are more likely to attend posyandu regularly. They realize that posyandu provides services that are not only beneficial for children, but also for them as mothers, because posyandu allows direct access to information and consultation with health workers (36). Good mothers' knowledge affects their participation in posyandu. This study found that mothers who understand the importance of periodic check-ups and immunizations tend to take their children to posyandu regularly (37). Good knowledge increases mothers' awareness of health risks in children whose health is not monitored, so that they are more encouraged to use posyandu services for disease prevention and child growth monitoring (31). In addition, good knowledge allows mothers to better understand the processes and services offered by posyandu, which then builds their trust in the services. Mothers who have enough information about the benefits and procedures of posyandu will not only have more confidence in these services, but will also be more likely to comply with health recommendations provided by health workers at posyandu. Conversely, mothers with limited knowledge may not fully understand the benefits of posyandu, so they are less motivated to attend it (38).

Adequate knowledge also provides mothers with skills in monitoring their own child's health, such as measuring a child's weight and height, as well as recognizing early signs of illness (39). Mothers with this knowledge will be quicker to realize if their child has health problems and are more likely to immediately seek help through posyandu. This creates a positive cycle in which mothers are actively involved in monitoring the child's health, which ultimately increases the frequency and quality of visits to posyandu (40). However, it is also important to note that good knowledge is often affected by adequate access to information. Mothers who have access to health information, whether through the media, education, or health counseling programs, tend to have better knowledge. Therefore, a

sustainable approach is needed in providing health education to mothers, especially in rural areas. Health counseling programs that focus on the benefits of posyandu for children's health can help increase maternal knowledge, thereby increasing the overall posyandu participation rate (41). Overall, mothers' knowledge of child health and posyandu plays an important role in influencing their decision to utilize posyandu services. This finding emphasizes the need to increase knowledge through health education, both by health workers at posyandu and through other media. With better knowledge, mothers can understand the importance of routine check-ups at posyandu as part of their efforts to prevent and monitor the health of their children under five. Efforts to increase maternal knowledge are expected to contribute to increasing the utilization of posyandu in this research area as well as in other regions (42). The limitations in this study include several aspects that need to be considered. First, the sampling technique used is accidental sampling, which can cause bias because it only involves mothers of toddlers who are present at the posyandu during the data collection period. This may not reflect the characteristics of mothers under five who rarely or never use posyandu. Second, this study was conducted in a limited period of time, namely for 60 days, so the results may not fully describe the overall pattern of posyandu utilization in a longer period of time. Third, the limitations of the variables studied only include factors such as education, employment, and maternal knowledge, while other factors, such as family support, transportation access, and local culture, also have the potential to affect the use of posyandu but are not analyzed in this study. Therefore, these limitations need to be considered in interpreting the results of the study, and further research is recommended to overcome these limitations in order to get a more comprehensive picture of the factors that affect the use of posyandu.

# CONCLUSION

The conclusion of this study proves that the factors of education, occupation, and knowledge of mothers have an effect on the utilization of posyandu for toddlers in the working area of the Sipiongot Health Center, Padang Lawas Utara Regency. In particular, knowledge has a significant influence, where mothers with good knowledge are more likely to use posyandu regularly compared to mothers who have less knowledge. This shows that knowledge is a key factor in encouraging mothers to actively participate in the health services offered by the posyandu. Although education and employment also affect the use of posyandu, these two factors do not have a significant influence in the multivariate analysis, but still contribute to the tendency of mothers to use posyandu.

# SUGGESTION

Based on the results of this study, it is recommended that the Health Center and related parties increase educational efforts for mothers under five years old, especially in terms of the importance of regular child health checks at the posyandu. Education can be carried out through easy-to-understand and relevant counseling programs, with a focus on increasing mothers' knowledge about the health of toddlers and the benefits of posyandu. In addition, for working mothers, it is recommended that there be flexibility in the posyandu schedule or support from family members, so that children can still get health services even though mothers have limited time. With this effort, it is hoped that the utilization of posyandu for toddlers can increase, which in turn will support child health efforts in the work area of the Sipiongot Health Center.

# REFERENCES

- 1. Sugiyanto S, Sumarlan S, Hadi AJ. Analysis of Balanced Nutrition Program Implementation Against Stunting in Toddlers. Unnes J Public Heal. 2020;9(2).
- Organization WH. Childhood stunting: challenges and opportunities: report of a webcast colloquium on the operational issues around setting and implementing national stunting reduction agendas, WHO Geneva [Internet]. Geneva PP Geneva: World Health Organization; 2018. Available from: https://apps.who.int/iris/handle/10665/107026
- 3. White E, Mendin S, Kolubah FR, Karlay R, Grant B, Jacobs GP, et al. Impact of the Liberian National Community Health Assistant Program on childhood illness care in Grand Bassa County, Liberia. PLOS Glob Public Heal. 2022;2(6):e0000668.
- 4. Banerjee S, Koner S, Kaur A, Sharma C. Major Determinants of Infant Mortality: District-level Evidence from Annual Health Survey States of India. J Health Manag. 2023;09720634231196963.
- 5. Hossain S, Alam SMR, Islam M, Miah SS, Hanifa MA, Sarker ZH, et al. Services Provided Through Community Clinic: Access and Utilization by Rural People. RANGPUR Med Coll. 2022;20.
- 6. Atnafu A, Gebremedhin T. Community-based health insurance enrollment and child health service utilization in Northwest Ethiopia: a cross-sectional case comparison study. Clin Outcomes Res. 2020;435–44.
- 7. RI KK. Badan penelitian dan pengembangan kesehatan. Ris Kesehat Dasar. 2018;
- 8. Simbolon G, Hadi AJ, Syam A. Faktor yang Berhubungan dengan Pemberdayaan Keluarga dalam Pencegahan Stunting di Wilayah Kerja Puskesmas Labuhan Rasoki Kota Padang Sidempuan. Media Publ

Promosi Kesehat Indones. 2023;6(10):2008–36.

- 9. Daryanti MS. The Relationship Between Mother's Knowledge and Posyandu and Mother's Compliance In Visiting Posyandu at Tonghap Posyandu, Tabur Lestari Village. Menara J Heal Sci. 2023;2(1):46–55.
- 10. Dinkes Sumatera Utara. Profil Kesehatan Provinsi Sumatera Utara Tahun 2021. Dinkes Provinsi Sumatera Utara; 2021.
- 11. Perry H, Robison N, Chavez D, Taja O, Hilari C, Shanklin D, et al. Attaining health for all through community partnerships: principles of the census-based, impact-oriented (CBIO) approach to primary health care developed in Bolivia, South America. Soc Sci Med. 1999;48(8):1053–67.
- 12. Perry HB, Shanklin DS, Schroeder DG. Impact of a community-based comprehensive primary healthcare programme on infant and child mortality in Bolivia. J Heal Popul Nutr. 2003;383–95.
- 13. Sachs JD. Macroeconomics and health: investing in health for economic development. Rev Panam Salud Pública. 2002;12(2):143–4.
- Hadi AJ, Harahap A, Ali RSM, Ahmad H. Hubungan Sosial Demografi dan Perilaku Keluarga Sadar Gizi dengan Kejadian Stunting di Wilayah Kerja Puskesmas Perawatan Menawi Kabupaten Kepulauan Yapen. Media Publ Promosi Kesehat Indones. 2023;6(5):972–81.
- 15. Schleiff MJ, Aitken I, Alam MA, Damtew ZA, Perry HB. Community health workers at the dawn of a new era: 6. Recruitment, training, and continuing education. Heal Res Policy Syst. 2021;19:1–28.
- 16. Mazzi M, Bajunirwe F, Aheebwe E, Nuwamanya S, Bagenda FN. Proximity to a community health worker is associated with utilization of malaria treatment services in the community among under-five children: a cross-sectional study in rural Uganda. Int Health. 2019;11(2):143–9.
- Daulay EK, Ahmad H, Hadi AJ, Widasari L. Pengaruh Promosi Kesehatan Melalui Bina Suasana terhadap Keaktifan Keluarga dalam Pencegahan Stunting di Puskesmas Sayurmatinggi Kabupaten Tapanuli Selatan. Media Publ Promosi Kesehat Indones. 2023;6(10):2010–8.
- 18. Yaya S, Bishwajit G, Ekholuenetale M, Shah V. Awareness and utilization of community clinic services among women in rural areas in Bangladesh: a cross-sectional study. PLoS One. 2017;12(10):e0187303.
- 19. Wakiaga JM, Nalugala R. An examination of the structural linkages between households and community health services in realization of accelerated primary healthcare delivery in Kisumu County, Kenya: a systematic review. F1000Research. 2021;10.
- 20. Vikram K, Vanneman R. Maternal education and the multidimensionality of child health outcomes in India. J Biosoc Sci. 2020;52(1):57–77.
- 21. Dorjee B, Debnath M, Bogin B. Impact of maternal education on the growth of children in a patriarchy. Hum Biol Public Heal. 2023;1.
- 22. Adinma ED, Adinma JIBD, Obionu CC, Asuzu MC. Effect of government-community healthcare cofinancing on maternal and child healthcare in Nigeria. West Afr J Med. 2011;30(1):35–41.
- Gitobu CM, Gichangi PB, Mwanda WO. The effect of Kenya's free maternal health care policy on the utilization of health facility delivery services and maternal and neonatal mortality in public health facilities. BMC Pregnancy Childbirth. 2018;18:1–11.
- 24. Lassi ZS, Kedzior SGE, Bhutta ZA. Community-based maternal and newborn educational care packages for improving neonatal health and survival in low-and middle-income countries. Cochrane Database Syst Rev. 2019;(11).
- 25. Glenton C, Scheel IB, Pradhan S, Lewin S, Hodgins S, Shrestha V. The female community health volunteer programme in Nepal: decision makers' perceptions of volunteerism, payment and other incentives. Soc Sci Med. 2010;70(12):1920–7.
- 26. Sellmaier C, Stewart LM, Brennan EM. Workforce participation of parents of children and youth with mental health difficulties: The impact of community services and supports. Community Work Fam. 2020;23(5):534–55.
- 27. Sellmaier C. Work, family, and community ecologies and their influence on work–life fit for fathers of children with special health care needs. Fam Soc. 2019;100(1):68–79.
- 28. Okuga M, Kemigisa M, Namutamba S, Namazzi G, Waiswa P. Engaging community health workers in maternal and newborn care in eastern Uganda. Glob Health Action. 2015;8(1):23968.
- 29. Kurniawati D, Dewi A. Nutritional status and quality of life in elderly. Malaysian J Nurs. 2018;9(3):11–5.
- 30. Glenton C, Colvin CJ, Carlsen B, Swartz A, Lewin S, Noyes J, et al. Barriers and facilitators to the implementation of lay health worker programmes to improve access to maternal and child health: a qualitative evidence synthesis. Cochrane Database Syst Rev. 2013;(10).
- 31. Waiswa P, Peterson SS, Namazzi G, Ekirapa EK, Naikoba S, Byaruhanga R, et al. The Uganda Newborn Study (UNEST): an effectiveness study on improving newborn health and survival in rural Uganda through a community-based intervention linked to health facilities-study protocol for a cluster randomized controlled

trial. Trials. 2012;13:1-16.

- 32. Baqui AH, Arifeen SE, Williams EK, Ahmed S, Mannan I, Rahman SM, et al. Effectiveness of home-based management of newborn infections by community health workers in rural Bangladesh. Pediatr Infect Dis J. 2009;28(4):304–10.
- Bhutta ZA, Soofi S, Cousens S, Mohammad S, Memon ZA, Ali I, et al. Improvement of perinatal and newborn care in rural Pakistan through community-based strategies: a cluster-randomised effectiveness trial. Lancet. 2011;377(9763):403–12.
- 34. Kearney L, Fulbrook P. Open-access community child health clinics: the everyday experience of parents and child health nurses. J Child Heal Care. 2012;16(1):5–14.
- 35. Buckley L, Harford K, Gibson L, Cornally N, Curtin M. Parent perspectives of engaging with a community paediatric clinic with linked child development supports in a disadvantaged area of Ireland. J Child Heal Care. 2023;13674935231210948.
- 36. Grant M, Wilford A, Haskins L, Phakathi S, Mntambo N, Horwood CM. Trust of community health workers influences the acceptance of community-based maternal and child health services. African J Prim Heal Care Fam Med. 2017;9(1):1–8.
- 37. Nasution IM, Hadi AJ, Ahmad H. Faktor yang Berhubungan dengan Keaktifan Kader dalam Pencegahan Stunting di Wilayah Kerja Puskesmas Pargarutan Kabupaten Tapanuli Selatan. Media Publ Promosi Kesehat Indones. 2023;6(4):744–52.
- Shrestha JR, Manandhar DS, Manandhar SR, Adhikari D, Rai C, Rana H, et al. Maternal and Neonatal Health Knowledge, Service Quality and Utilization: Findings from a Community Based Quasi-experimental Trial in Arghakhanchi District of Nepal. J Nepal Health Res Counc. 2015;
- 39. Tombeg Z, Hadi AJ. Perilaku Makan Keluarga Terhadap Pemberian MP-ASI pada Baduta di Kelurahan Pasang Kecamatan Makale Selatan. Media Publ Promosi Kesehat Indones. 2022;5(8):990–4.
- 40. Ridgway L, Hackworth N, Nicholson JM, McKenna L. Working with families: A systematic scoping review of family-centred care in universal, community-based maternal, child, and family health services. J Child Heal Care. 2021;25(2):268–89.
- 41. Yanagisawa S, Soyano A, Igarashi H, Ura M, Nakamura Y. Effect of a maternal and child health handbook on maternal knowledge and behaviour: a community-based controlled trial in rural Cambodia. Health Policy Plan. 2015;30(9):1184–92.
- 42. Hasibuan SBH, Hadi AJ, Ali RSM, Palluturi S, Lubis NL. Penguatan Gerakan Keluarga Sehat melalui Posyandu terhadap Pencegahan Stunting di Wilayah Kerja Puskesmas Paringgonan Kabupaten Padang Lawas. Media Publ Promosi Kesehat Indones. 2023;6(7):1415–22.