



The Relationship Between Knowledge, Information Exposure, and Cadre Support with Mothers' Visits for Under-Five Weighing Coverage in the Working Area of Pegambiran Health Center, Padang City, 2024

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Abstract

Malnutrition is a major nutritional problem throughout the world. The highest number of nutritional problems occurred in East Africa and Asia, including Indonesia. The Indonesian Ministry of Health conducted a survey and revealed that in Indonesia, 1 in 12 toddlers suffered from wasting, and 1 in 5 toddlers suffered from stunting (SSGI 2022). The scope of toddler weighing at Pagambiran health center with the indicators of (K/S) 99,84%, (N/D) 53,26% and (D/S) 13,4%, had not reached the strategic plan target which was 85%. The strategy used to reduce nutritional problems was to increase community participation through integrated health posts (posyandu). The purpose of this study was to determine the determinant factors related to mothers' visits to posyandu on the scope of weighing toddlers. The research method used was the combination method (mix method). The research was conducted from September 2023 to August 2024. The number of samples was 196 mothers who had children aged 12-59 months in the work area of Pegambiran Health Center using the sampling technique of cluster random sampling. The data were collected through questionnaires and interviews. This research data analysis was carried out using univariate and bivariate analysis. The result of statistical test, it was found out that the relationship knowledge (p-value 0.002), exposure information (p-value 0.007) and cadre support (p-value 0.000) to mothers' visits in the scope of toddler weighing. The conclusion of the research is that there is a significant relationship between knowledge, exposure information and cadre support to mothers' visits in the scope of toddler weighing at the work area of Pegambiran Health Center.

Introduction

Malnutrition remains a significant issue among children under five globally. Africa and Asia are the continents with the highest rates of malnutrition. Statistical data from the United Nations Children's Fund (UNICEF) in 2018 showed that more than two-thirds of children under five live in Asia (68%), and over a quarter live in Africa (28%) with undernutrition problems. As for overnutrition, almost half of the children under five live in Asia (47%), and a quarter in Africa (24%), with numbers increasing each year (Indonesia, 2020). The Indonesian Ministry of Health has implemented various interventions to address nutritional issues, one of which is carried out at the community level, specifically at Posyandu (Integrated Service Posts) found

in every health center across Indonesia as a promotive and preventive effort. Presidential Regulation No. 42, Article 1, of 2013 on the National Movement for Accelerating Nutritional Improvement states that the first thousand days of life are a golden period for a child's brain development (Fazila et al., 2021).

In 2023, the percentage of children under five weighed in Indonesia was only 83.2%, with the highest percentage in the Special Region of Yogyakarta at 96.2% and the lowest percentage in Central Province at 32.4%. Meanwhile, in West Sumatra Province, the average percentage of children under five weighed was 85.6%. Padang Panjang City ranked highest in West Sumatra in weighing children under five at 92.45%, while the Mentawai Islands Regency ranked lowest with only 54.82% of children under five weighed. This is still far from the government's target of 100% monitoring of child growth and development.

The 2023 Indonesian Health Survey (SKI) results showed that only 46.7% of children under five were weighed more than eight times in the past 12 months at Posyandu. Based on the age group, only 62.45% of children aged 12-59 months were weighed at Posyandu in Indonesia. Weighing children under five can be measured by the frequency of visits to weigh their body weight regularly at least eight times a year. Monthly child weighing has become a National Program Movement to prevent stunting (Dewi et al., 2022; Sufri et al., 2023; Permatasari et al., 2023).

The coverage of D/S (Visit per Target) weighing for children under five is an indicator of monitored child growth through monthly weight measurements according to age at Posyandu. The achievement of under-five weighing coverage based on the D/S indicator in 2022 in Padang City was only 42.8%. Out of 77,624 children under five targeted for weighing, only 33,195 children under five were weighed. This coverage decreased from 2021 (44.5%). In the last five years, community participation has declined. Further intervention is still needed to address the factors causing low community participation in bringing their children to Posyandu in the current modern era.

The lowest coverage of children under five being weighed at Posyandu in Padang City was at Pegambiran Health Center, with only 13.4%, and the highest was at Kuranji Health Center with 76.3%. Pegambiran Health Center is the only health center with the highest decrease in under-five weighing coverage in Padang City, with a significant percentage drop from 34.4% to 13.4% (Padang., 2023). Based on this background, the researcher is interested in studying the relationship between knowledge, information exposure, and cadre support with mothers' visits for children aged 12-59 months in the coverage of under-five weighing at Posyandu in the working area of Pegambiran Health Center, Padang City.

Methods

This research employs a quantitative method. The study was conducted from September 2023 to August 2024. The sample size was 196 mothers with children aged 12-59 months in the working area of Pegambiran Health Center, with the sampling technique using cluster random sampling. Data were collected through questionnaires and interviews, followed by univariate, bivariate, and multivariate analyses.

Result and Discussion

Univariate Analysis Results

The univariate analysis results of the study on the relationship between knowledge, information exposure, and support from community health workers (kaders) showed the following frequency distribution of respondents:

Table 1. Frequency Distribution of Respondent Characteristics in the Working Area of Pegambiran Health Center, Padang City

No	Variable	f (n=196)	%
1.	Mother's Visit		
	- Inaktif	104	53.1
	- Aktif	92	46.9
2.	Knowledge Level		
	- Low	109	55,6
	- High	87	44,4
3.	Information Exposure		
	- No	60	30,6
	- Yes	136	69,4
4.	Kader Support		
	- Insufficient	100	51
	- Good	96	49

Table 1 shows that active visits of mothers to Posyandu account for 46.9%, while inactive visits account for 53.1%. The study results indicate that more mothers have low knowledge levels (55.6%) compared to those with high knowledge levels (44.4%). The majority of mothers (69.4%) in this study were exposed to information about Posyandu, compared to those who were not exposed (30.6%). The study also shows that most of the support from kaders (51%) was insufficient compared to good support (49%).

Bivariate Analysis Results

Bivariate analysis was used to determine the relationship between independent and dependent variables, using the chi-square test. The results are as follows:

Table 2. Relationship Between Knowledge and Mother's Visits for Toddler Weighing Coverage to Posyandu in the Working Area of Pegambiran Health Center, Padang City

Knowledge	Mother's Visit				Total		<i>p-value</i>	<i>OR</i>	95% <i>CI</i>	
	Inactive		Active						Lower	Upper
	f	%	f	%	f	%				
Low	69	63,3	40	36,7	109	100	0.002	2,5	1,436	4,573
High	35	40,2	52	59,8	87	100				
Total	104	53,1	92	46,9	196	100				

Table 2 shows that a higher percentage of mothers with high knowledge (59.8%) actively visit Posyandu compared to mothers with low knowledge. Conversely, the percentage of mothers who do not actively visit Posyandu is higher among those with low knowledge (63.3%) compared to those with high knowledge (40.2%). The statistical test results obtained a p-value of 0.002 ($p < 0.05$), indicating a significant relationship between mothers' knowledge and their visits to Posyandu for toddler weighing coverage.

Table 3. Relationship Between Information Exposure and Mother's Visits for Toddler Weighing Coverage to Posyandu in the Working Area of Pegambiran Health Center, Padang City

Keterpaparan Informasi	Mother's Visit				Total		<i>p-value</i>	<i>OR</i>	95 % <i>CI</i>	
	Inactive		Actif						Lower	Upper
	n	%	n	%	n	%				
No	41	68,3	19	31,7	60	100	0,007	2,5	1,319	4,742
Yes	63	46,3	73	53,7	136	100				
Total	104	53.1	92	46.9	196	100				

Table 3 shows that a higher percentage of mothers who were exposed to information (53.7%) actively visit Posyandu compared to those who were not exposed (31.7%). Conversely, the percentage of mothers who do not actively visit Posyandu is higher among those who were not exposed to information (68.3%) compared to those who were exposed (46.3%). The statistical test results obtained a p-value of 0.007 ($p < 0.05$), indicating a significant relationship between information exposure and mothers' visits to Posyandu for toddler weighing coverage.

Table 4. Relationship Between Kader Support and Mother's Visits for Toddler Weighing Coverage to Posyandu in the Working Area of Pegambiran Health Center, Padang City

Kader Support	Mother's Visit				Total		<i>p-value</i>	<i>OR</i>	<i>95 % CI</i>	
	Inactive		Actif						Lower	Upper
	n	%	n	%	n	%				
Insufficient	69	69	31	31	100	100	0,000	3,8	2,143	7,023
Good	35	36,5	61	63,5	96	100				
Total	104	53.1	92	46.9	196	100				

Table 4 shows that a higher percentage of mothers who receive good support from kaders (63.5%) actively visit Posyandu compared to those who receive insufficient support (31%). Conversely, the percentage of mothers who do not actively visit Posyandu is higher among those who receive insufficient support from kaders (69%) compared to those who receive good support (36.5%). The statistical test results obtained a p-value of 0.000 ($p < 0.05$), indicating a significant relationship between kader support and mothers' visits to Posyandu for toddler weighing coverage.

The Relationship Between Knowledge and Mothers' Visits for Under-Five Weighing Coverage at Posyandu in the Working Area of Pegambiran Health Center

This study found that the low participation of mothers in bringing their children to Posyandu for weighing was largely due to low maternal knowledge (63.3%). The statistical analysis using the chi-square test yielded a p-value of 0.002 ($p < 0.05$), indicating a significant relationship between maternal knowledge and the frequency of visits to Posyandu in the working area of Pegambiran Health Center, Padang City. Mothers with low knowledge in this study were more likely to be inactive in visiting Posyandu. This is because mothers are unaware of the benefits and importance of Posyandu in monitoring their child's growth and development, coupled with a lack of counseling and education provided by cadres and health workers to enhance maternal knowledge about the importance of Posyandu.

In-depth interviews revealed that most mothers were unaware that child weighing should continue until the child reaches five years of age. Mothers in the working area of Pegambiran Health Center only weighed their children until the age of two or until the child completed immunizations. The study also found that once a child's immunizations were complete, mothers no longer brought their children to Posyandu for weighing, believing it was unnecessary as the child was not sick and the immunizations were complete. As a result, children aged two years and above were generally not brought to Posyandu by their mothers. Low maternal knowledge about Posyandu affects maternal behavior. (Fathurrohman et al., 2021) revealed that an individual's knowledge significantly influences behavior; the higher the mother's knowledge of the benefits of Posyandu, the greater her awareness and participation in Posyandu programs. Conversely, low knowledge about Posyandu leads to low awareness among mothers of children under five to visit Posyandu (Fathurrohman et al., 2021). This study's findings are consistent with previous research conducted by (Maharsi, 2007) on the level of maternal knowledge about Posyandu in the working area of Banjaroya Health Center, Kalibawang, Kulon Progo, which found that 58% of respondents with low knowledge did not routinely visit Posyandu with their children. This is attributed to the low knowledge of mothers, making Posyandu not a priority

for monitoring their child's growth and development (Maharsi, 2007; Suparto et al., 2022; Wijayanti & Saputri, 2020).

The Relationship Between Information Exposure and Mothers' Visits for Under-Five Weighing Coverage at Posyandu in the Working Area of Pegambiran Health Center

This study found that the low participation of mothers in bringing their children to Posyandu was primarily due to a lack of exposure to information about Posyandu activities (68.3%). The chi-square statistical analysis yielded a p-value of 0.007 ($p < 0.05$), indicating a significant relationship between information exposure and mothers' visits to Posyandu in the working area of Pegambiran Health Center, Padang City. The study found that most mothers who were not exposed to information about Posyandu were not informed by the cadres about when Posyandu sessions were held. Mothers who actively visited Posyandu received information about the schedule from cadres, who informed them through home visits or mosque loudspeakers in the Pegambiran Health Center area. Information exposure makes mothers aware of Posyandu activities and motivates them to bring their children for growth monitoring, especially for weighing, so they can be aware of their child's nutritional status.

Respondents who were inactive in visiting Posyandu mentioned that they were never exposed to information about Posyandu, making them unaware of the need for growth and development monitoring, particularly weight monitoring, which should be conducted until the child is five years old. The researcher assumes that the information exposure and knowledge mothers receive about Posyandu are closely related to their behavior in visiting Posyandu. Mothers frequently exposed to the benefits of Posyandu will have better knowledge about child health services, especially growth monitoring, and will regularly bring their children to Posyandu for weighing until they are five years old. Siahaan's study (2022) states that the more information someone receives, the more it can influence or add to their knowledge, leading to awareness and ultimately, actions based on that knowledge (Siahaan, 2022; Hai Ming et al., 2022).

Mothers receive information about Posyandu from cadres in the community. Active cadres will inform all mothers in their working area about Posyandu activities. Public trust in cadres for information dissemination influences mothers' visits to Posyandu. Rinawan et al. (2021) mentions that the public's choice of information sources is influenced by their background, including their living environment. Communities in rural areas, where most residents have lower education levels, often seek and receive health-related information, one of which comes from health cadres at Posyandu (2021) (Maharani, 2022; Dwinantoaji et al., 2020; Susanti et al., 2023). This indicates that the information provided by cadres is trusted by the community, and with frequent and active exposure to information about the importance of Posyandu, the community will also proactively visit Posyandu.

The Relationship Between Cadre Support and Mothers' Visits for Under-Five Weighing Coverage at Posyandu in the Working Area of Pegambiran Health Center

This study found that the low proportion of visits to Posyandu by children under five was largely due to inadequate support from cadres (51%). The chi-square statistical analysis yielded a p-value of 0.000 ($p < 0.05$), indicating a significant relationship between cadre support and the frequency of visits to Posyandu in the working area of Pegambiran Health Center, Padang City. Many cadres were unaware that monthly weighing is necessary for monitoring child growth, leading to mothers being inactive in visiting Posyandu.

This study aligns with (Simanjuntak et al., 2023), which found a relationship between the role of cadres and mothers' active participation in bringing their children to Posyandu, as evidenced by the chi-square test result of $p = 0.02$, concluding that there is a relationship between the role of cadres and mothers' active participation in bringing their children to Posyandu (Simanjuntak et al., 2023). The presence of cadres is crucial in achieving the objectives of Posyandu. The active participation of Posyandu cadres is a tangible action reflected in the regularity and

involvement of a cadre in various Posyandu activities, both within and outside Posyandu, such as motivating mothers to visit Posyandu (Rianda et al., 2023).

Conclusion

This study concludes that the majority of mothers do not actively visit the Posyandu (integrated healthcare centers) in the working area of Puskesmas Pagambiran, Padang City. The research also found a significant relationship between mothers' knowledge, exposure to information, and support from health volunteers with mothers' visits to the Posyandu, particularly in the coverage of weighing toddlers within the working area of Puskesmas Pagambiran, Padang City. It is hoped that healthcare workers, volunteers, and related sectors can be more proactive in encouraging mothers to regularly visit the Posyandu, especially for monitoring child growth by weighing children up to the age of 5 years.

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